MODEL G0809
COMBO JOINTER/PLANER
OWNER'S MANUAL
(For models manufactured since 01/17)

Intertek
3092372

#JH18712 PRINTED IN CHINA V1.04.18

⚠ WARNING!

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

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

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

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

⚠ WARNING!

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

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

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

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INTRODUCTION

Contact Info

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

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

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

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

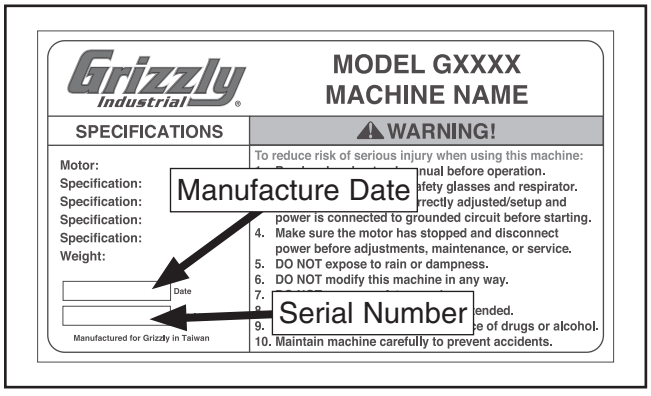
Manual Accuracy

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

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

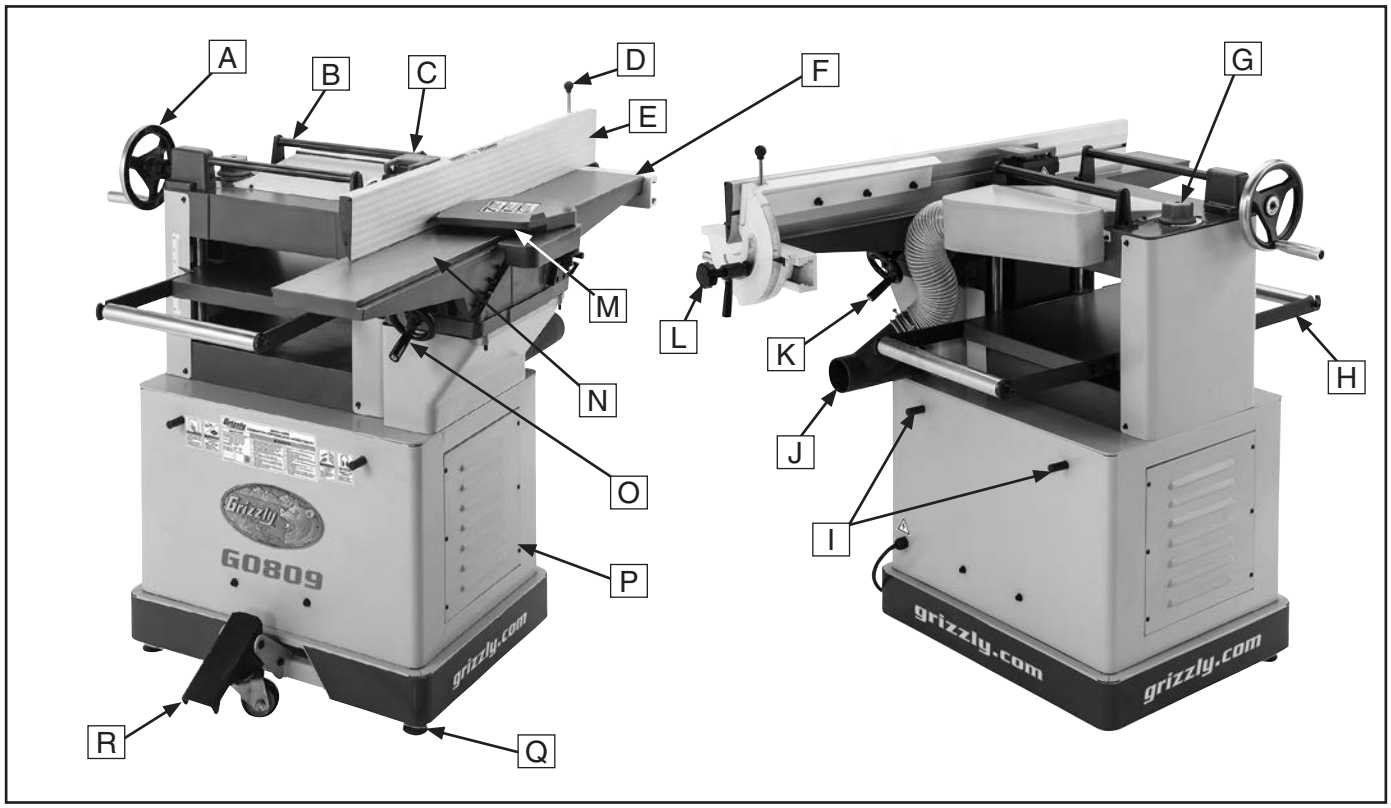
If you find this to be the case, and the difference between the manual and machine leaves you confused or unsure about something, check our website for an updated version. We post current manuals and manual updates for free on our website at **www.grizzly.com**.

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



Identification

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



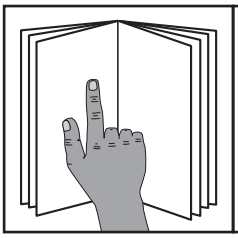
A. Table Height Handwheel
B. Return Roller (1 of 2)
C. ON/OFF Paddle Switch w/Disabling Key
D. Fence Tilt Handle
E. Fence
F. Infeed Table
G. Feed Rate Dial
H. Roller Support
I. Lifting Bars (2 of 4)
J. Combo Dust Port
K. Infeed Table Adjustment Handwheel
L. Fence Tilt Lock
M. Cutterhead Guard
N. Outfeed Table
O. Outfeed Table Adjustment Handwheel
P. Motor Access Panel (1 of 2)
Q. Adjustable Feet (1 of 2)
R. Foot Pedal Caster Assembly

⚠WARNING

For Your Own Safety Read Instruction Manual Before Operating Jointer

a) Wear eye protection.
b) Always keep cutterhead and drive guards in place and in proper operating condition. ALWAYS replace cutterhead guard after rabbeting operations.
c) Never make jointing or rabbeting cuts deeper than ⅛" or planing cuts deeper than 1/16".
d) Always use hold-down or push blocks when jointing material narrower than 3" or surface planing material thinner than 3".
e) Never perform jointing, planing, or rabbeting cuts on pieces shorter than 8" in length.

Controls & Components



⚠WARNING

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

Refer to **Figures 1–4** and the following descriptions to become familiar with the basic controls and components of this machine. Understanding these items and how they work will help you understand the rest of the manual and stay safe when operating this machine.

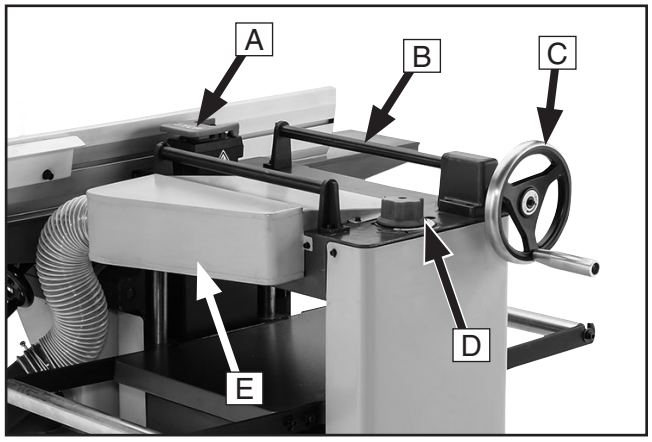


Figure 1. Planer controls and components.

A. ON/OFF Paddle Switch: Turns motor ***ON*** and ***OFF***. Insert disabling pin to lock ON/OFF switch.

B. Return Rollers (1 of 2): Easily slide workpiece back to operator following planing operation.

C. Table Elevation Handwheel: Raises and lowers table. Turning handle one full rotation raises or lowers table 1/16". Turning handle clockwise raises table; turning handle counterclockwise lowers it.

D. Feed Rate Control Dial: Switches between 15 FPM and 30 FPM feed rate.

E. Dust Hood: Funnels wood chips and sawdust into dust collection port.

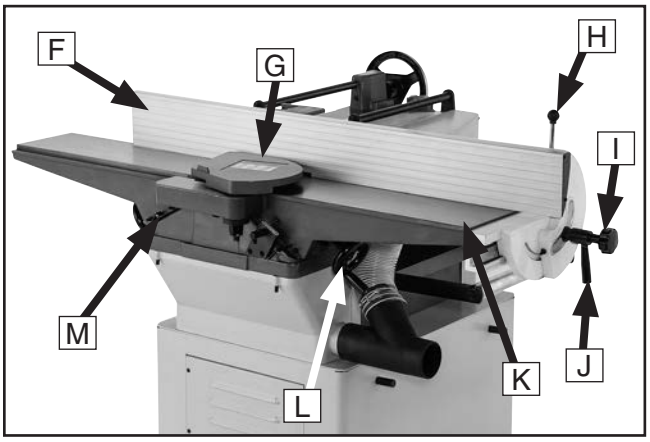


Figure 2. Main table controls, fence, and foot pedal caster.

F. Fence: Guides workpiece as it moves across cutterhead; determines angle of cut.

G. Cutterhead Guard: Covers cutterhead until pushed out of the way by workpiece during operation. When workpiece leaves cutterhead, guard springs back to its starting position.

H. Fence Tilt Handle: Tilts fence throughout its range of motion from 45° inward to 45° outward (135°).

I. Fence Lock Knob: Locks fence in place across width of jointer tables.

J. Fence Angle Lock Lever: Loosens to adjust fence from 45° inward to 45° outward (135°), and tightens to secure angle setting.

K. Infeed Table: Supports workpiece before it reaches cutterhead. Position of infeed table relative to cutterhead determines depth of cut.

L. Infeed Table Handwheel: Adjusts position of infeed table (when infeed table lock is loosened).

M. Outfeed Table Lock: Loosens to allow adjustment of outfeed table height relative to infeed table and rabbeting table.

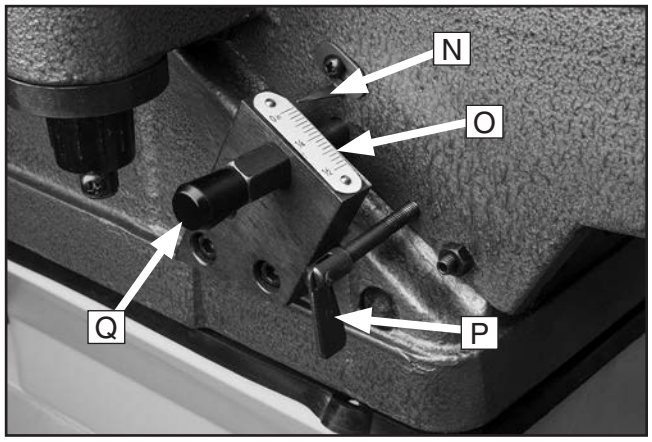


Figure 3. Infeed table height controls.

N. Infeed Table Depth Indicator: Points to current cut depth (in inches). Indicator can be reset to "0".

O. Depth-of-Cut Scale: Indicates cutting depth of a single pass.

P. Infeed Table Lock: Loosens to allow adjustment of infeed table height or cutting depth; tightens to secure infeed table.

Q. Zero Stop: Spring-loaded pin locks infeed table height at "0". Pull pin outward to change infeed table height.

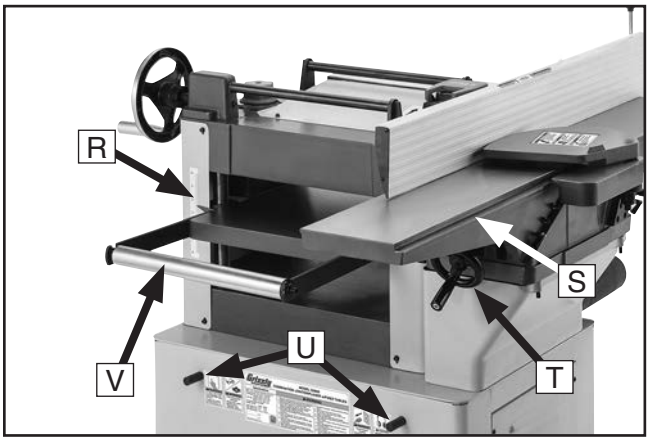


Figure 4. Planer frontside components and jointer outfeed.

R. Table Elevation Scale: Shows the elevation of the table in relation to the cutterhead. Red indicator arrow represents the effective board thickness *after* planing.

S. Outfeed Table: Supports workpiece after it passes over cutterhead. For safety and best results, outfeed table must be properly adjusted relative to cutterhead knives before ANY operations (refer to **Page 49** for more details).

T. Outfeed Table Handwheel: Adjusts position of outfeed table. Typically only used when setting outfeed table even with cutterhead knives or when servicing the cutterhead.

U. Lifting Bars (4): Pull out for lifting machine with forklift. Leave pushed in for planing and jointing operations.

V. Table Rollers (2): Keep workpiece parallel with planer bed as it passes cutterhead.

Internal Planer Components

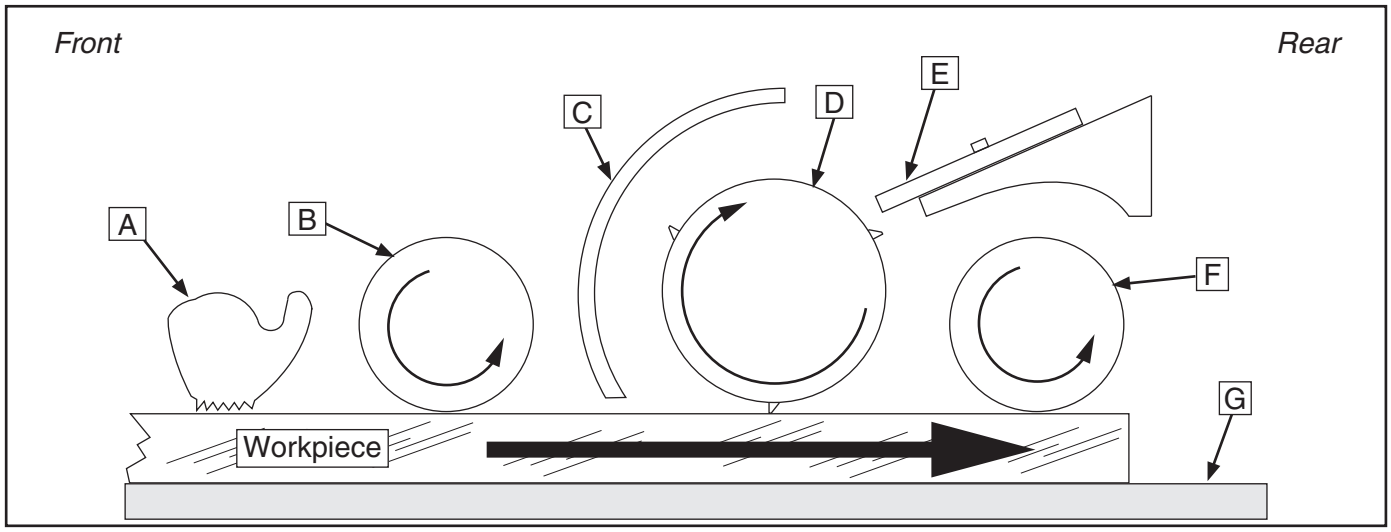


Figure 5. Workpiece path and major planing components (side cutaway view).

A. Anti-Kickback Fingers: "Grab" workpiece if a kickback occurs, reducing the risk of kickback related injuries.

B. Infeed Roller: Pulls the workpiece toward the cutterhead.

C. Chip Breaker: Breaks off freshly cut chips/shavings as they're lifted by the cutterhead to prevent tear-out and divert them toward the dust hood for improved overall extraction.

D. Cutterhead: Holds the knives that remove material from the workpiece.

E. Chip Deflector: Captures dust and chips removed during cutting operation, helping funnel material into the dust port.

F. Outfeed Roller: Pulls the workpiece through the planer.

G. Planer Table: Provides a smooth and level path for the workpiece as it travels through the planer.

⚠WARNING

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

MACHINE DATA SHEET

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

MODEL G0809
COMBINATION JOINTER/PLANER WITH FIXED TABLES

Product Dimensions:

Weight	522 lbs.
Width (side-to-side) x Depth (front-to-back) x Height	52-1/2 x 35-1/2 x 41-1/2 in.
Foot Print (Length x Width)	28 x 21-1/2 in.

Shipping Dimensions:

Type	Cardboard Box
Content	Machine
Weight	578 lbs.
Length x Width x Height	50 x 40 x 50 in.
Must Ship Upright	Yes

Electrical:

Power Requirement	240V, Single-Phase, 60 Hz
Full-Load Current Rating	7.5A
Minimum Circuit Size	15A
Connection Type	Cord & Plug
Power Cord Included	Yes
Power Cord Length	8 ft.
Power Cord Gauge	14 AWG
Plug Included	Yes
Included Plug Type	6-15
Switch Type	ON/OFF Push Button Switch

Motors:

Main

Type	TEFC Capacitor-Start Induction
Horsepower	2 HP
Phase	Single-Phase
Amps	7.5A
Speed	3400 RPM
Power Transfer	Twin V-Belts
Bearings	Shielded & Permanently Lubricated

Main Specifications:

Fence Information

Fence Length	41-7/8 in.
Fence Width	1-1/8 in.
Fence Height	4-3/4 in.
Fence Stops	45, 90, 135 deg.

Cutting Capacities (Jointer)

Bevel Jointing	0 – 45 deg. L/R
Maximum Width of Cut	6 in.
Maximum Depth of Cut	1/8 in.
Minimum Stock Length	8 in.
Minimum Stock Thickness	1/2 in.
Maximum Rabbeting Depth	1/2 in.
Number of Cuts Per Minute	16,200

Cutting Capacities (Planer)

Maximum Width of Cut	13 in.
Maximum Depth of Cut Planing Full Width	1/16 in.
Maximum Depth of Cut Planing 6" Wide Board	1/8 in.
Number of Cuts Per Minute	16,200
Number of Cuts Per Inch	122, 61
Feed Speeds	15, 30 FPM
Minimum Stock Length	6-1/2 in.
Maximum Stock Thickness	6 in.
Minimum Stock Thickness	1/8 in.

Knife Information (Jointer)

Number of Knives	3
Knife Type	HSS, Single Sided
Knife Length.	6 in.
Knife Width.	5/8 in.
Knife Thickness.	1/8 in.
Knife Adjustment.	Jack Screws

Knife Information (Planer)

Number of Knives	3
Knife Type	HSS, Single Sided
Knife Length.	13 in.
Knife Width.	5/8 in.
Knife Thickness.	1/8 in.
Knife Adjustment.	Jack Screws

Cutterhead Information (Jointer)

Cutterhead Type	3 Knife
Cutterhead Diameter	2-7/16 in.
Cutterhead Speed	5400 RPM

Cutterhead Information (Planer)

Cutterhead Type	3 Knife
Cutterhead Diameter	2-11/16 in.
Cutterhead Speed	5400 RPM

Table Information (Jointer)

Table Length	45-7/8 in.
Table Width	7-3/8 in.
Table Thickness	1/4 in.
Floor To Table Height	36-1/8 in.
Table Adjustment Type	Handwheel
Table Movement Type	Dovetail

Table Information (Planer)

Table Length	19-1/4 in.
Table Width	14-1/8 in.
Table Thickness	1/2 in.
Floor-To-Table Height	27-7/8 in.
Table Adjustment Type	Handwheel

Construction

Body Assembly	Cast Iron & Sheet Steel
Cutterhead	Steel
Infeed Roller	Rubber
Outfeed Roller	Rubber
Stand	Sheet Steel
Tables	Precision-Ground Cast Iron
Paint Type/Finish	Powder Coated, Epoxy

Other Information

Dust Port Size	4 in.
Number of Dust Ports	2
Measurement Scale (Jointer)	Inch/Metric
Measurement Scale (Planer)	Inch/Metric
Mobile Base	Built-In
Gear Box	2-Speed

Other Specifications:

Country of Origin	China
Warranty	1 Year
Serial Number Location	ID Label
ISO 9001 Factory	Yes
CSA, ETL, or UL Certified/Listed	Yes

Features:

Separate 3-Knife Cutterheads for Jointer and Planer
Two-Speed Automatic Board Feed for Planer
4" Dust Port
Built-In, Easy-to-Use Mobile Base
Board Return Rollers
Cast-Iron Planer Table with Extension Rollers
Dual V-Belt Drive
Precision-Ground Cast-Iron Tables
Handwheel Height Adjustment on Planer and Jointer
Anti-Kickback Pawls for Planer
Knife-Setting Jigs for Planer and Jointer Included
Rabbeting Table on Jointer

Accessories:

Hex Wrenches 8, 6, 5, 4, 3mm
Pair of Push Blocks

SECTION 1: SAFETY

For Your Own Safety, Read Instruction Manual Before Operating This Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures. Always use common sense and good judgment.

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

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

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

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

Safety Instructions for Machinery

⚠WARNING

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

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

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

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

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

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

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

⚠WARNING

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Additional Safety for Jointers

⚠WARNING

Serious cuts, amputation, entanglement, or death can occur from contact with rotating cutterhead or other moving components! Flying chips from cutting operations can cause eye injuries or blindness. Workpieces or inserts/knives thrown by cutterhead (kickback) can strike nearby operator or bystanders with deadly force. To reduce the risk of serious personal injury from these hazards, operator and bystanders MUST completely heed the hazards and warnings below.

KICKBACK. Occurs when workpiece is ejected from machine at a high rate of speed. Kickback injuries occur from getting struck by workpiece or hands being pulled into cutterhead. To reduce the risk of kickback, only use proper workpieces, safe feeding techniques, and proper machine setup or maintenance.

GUARD REMOVAL. Operating jointer without guards unnecessarily exposes operator to knives/inserts and other hazardous moving parts. Except when rabbeting, never operate jointer or allow it to be connected to power if any guards are removed. Turn jointer ***OFF*** and disconnect power before clearing any shavings or sawdust from around cutterhead. After rabbeting or maintenance is complete, immediately replace all guards and ensure they are properly installed/adjusted before resuming regular operations.

DULL OR DAMAGED KNIVES/INSERTS. Dull or damaged knives/inserts increase risk of kickback and cause poor workpiece finish. Only use sharp, undamaged knives/inserts.

OUTFEED TABLE ALIGNMENT. Setting outfeed table too high can cause workpiece to hit table or get stuck while feeding. Setting outfeed table too low may cause workpiece to rock or shift while feeding. Both of these results will increase risk of kickback. Always keep outfeed table even with knives/inserts at highest point during rotation.

INSPECTING STOCK. Impact injuries or kickback may result from using improper workpieces. Thoroughly inspect and prepare workpiece before cutting. Verify workpiece is free of nails, staples, loose knots or other foreign material. Always joint warped workpieces with cupped side facing down.

MAXIMUM CUTTING DEPTH. To reduce risk of kickback, never cut deeper than ⅛" per pass.

GRAIN DIRECTION. Jointing against the grain or end grain can increase risk of kickback. It also requires more cutting force, which produces chatter or excessive chip out. Always joint or surface plane WITH the grain.

CUTTING LIMITATIONS. Cutting workpieces that do not meet minimum dimension requirements can result in kickback or accidental contact with cutterhead. Never perform jointing, planing, or rabbeting cuts on pieces smaller than specified in machine data sheet.

PUSH BLOCKS. Push blocks reduce risk of accidental cutterhead contact with hands. Always use push blocks when planing materials less than 3" high or wide. Never pass your hands directly over cutterhead without a push block.

WORKPIECE SUPPORT. Poor workpiece support or loss of workpiece control while feeding will increase risk of kickback or accidental contact with cutterhead. Support workpiece with fence continuously during operation. Support long stock with auxiliary tables if necessary.

FEED WORKPIECE PROPERLY. Kickback or accidental cutterhead contact may result if workpiece is fed into cutterhead the wrong way. Allow cutterhead to reach full speed before feeding. Never start jointer with workpiece touching cutterhead. Always feed workpiece from infeed side to outfeed side without stopping until cut is complete. Never move workpiece backwards while feeding.

SECURE KNIVES/INSERTS. Loose knives or improperly set inserts can be thrown from cutterhead with dangerous force. Always verify knives/inserts are secure and properly adjusted before operation. Straight knives should never project more than ⅛" (0.125") from cutterhead body.

Additional Safety for Planers

⚠WARNING

Amputation, serious cuts, entanglement, or death can occur from contact with rotating cutterhead or other moving parts! Flying chips can cause eye injuries or blindness. Workpieces or knives thrown by cutterhead can strike nearby operator or bystanders with deadly force. To reduce the risk of these hazards, operator and bystanders MUST completely heed hazards and warnings below.

KICKBACK. Know how to reduce the risk of kickback and kickback-related injuries. "Kickback" occurs during the operation when the workpiece is ejected from the machine at a high rate of speed. Kickback is commonly caused by poor workpiece selection, unsafe feeding techniques, or improper machine setup/maintenance. Kickback injuries typically occur as follows: (1) operator/bystanders are struck by the workpiece, resulting in impact injuries (i.e., blindness, broken bones, bruises, death); (2) operator's hands are pulled into blade, resulting in amputation or severe lacerations.

AVOID CONTACT WITH MOVING PARTS. Never remove guards/covers or reach inside the planer during operation or while connected to power. You could be seriously injured if you accidentally touch the spinning cutterhead or get entangled in moving parts. If a workpiece becomes stuck or sawdust removal is necessary, turn planer ***OFF*** and disconnect power before clearing.

DULL/DAMAGED KNIVES/INSERTS. Only use sharp, undamaged knives/inserts. Dull or damaged knives/inserts increase the risk of kickback.

INSPECTING STOCK. To reduce the risk of kickback injuries or machine damage, thoroughly inspect and prepare the workpiece before cutting. Verify workpiece is free of nails, staples, loose knots or foreign material. Workpieces with minor warping should be jointed first or planed with the cupped side facing the table.

BODY PLACEMENT. Stand to one side of planer during the entire operation to avoid getting hit if kickback occurs.

GRAIN DIRECTION. Planing across the grain is hard on the planer and may cause kickback. Plane in the same direction or at a slight angle with the wood grain.

PLANING CORRECT MATERIAL. Only plane natural wood stock with this planer. DO NOT plane MDF, OSB, plywood, laminates or other synthetic materials that can break up inside the planer and be ejected towards the operator.

LOOKING INSIDE PLANER. Wood chips fly around inside the planer at a high rate of speed during operation. To avoid injury from flying material, DO NOT look inside planer during operation.

CUTTING LIMITATIONS. To reduce the risk of kickback hazards or damage to the machine, do not exceed the maximum depth of cut or minimum board length and thickness found in the **Data Sheet**. Only feed one board at a time.

INFEED ROLLER CLEARANCE. The infeed roller is designed to pull material into the spinning cutterhead. To reduce the risk of entanglement, keep hands, clothing, jewelry, and long hair away from the infeed roller during operation.

FEED WORKPIECE PROPERLY. To reduce the risk of kickback, never start planer with workpiece touching cutterhead. Allow cutterhead to reach full speed before feeding, and do not change feed speed during cutting operation.

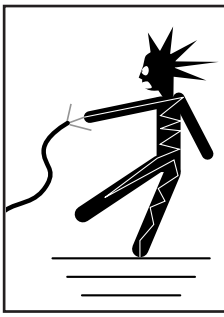
WORKPIECE SUPPORT. To reduce the risk of kickback, always make sure workpiece can move completely across table without rocking or tipping. Use auxiliary support stands for long stock.

SECURE KNIVES/INSERTS. Loose knives or improperly set inserts can become dangerous projectiles or cause machine damage. Always verify knives/inserts are secure and properly adjusted before operation.

SECTION 2: POWER SUPPLY

Availability

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



⚠WARNING

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

Full-Load Current Rating

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

Full-Load Current Rating at 240V .... 7.5 Amps

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

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

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.)

⚠CAUTION

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

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

Circuit Requirements

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

Nominal Voltage 208V, 220V, 230V, 240V
Cycle ..... 60 Hz
Phase ..... Single-Phase
Power Supply Circuit ..... 15 Amps
Plug/Receptacle ..... NEMA 6-15

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.

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

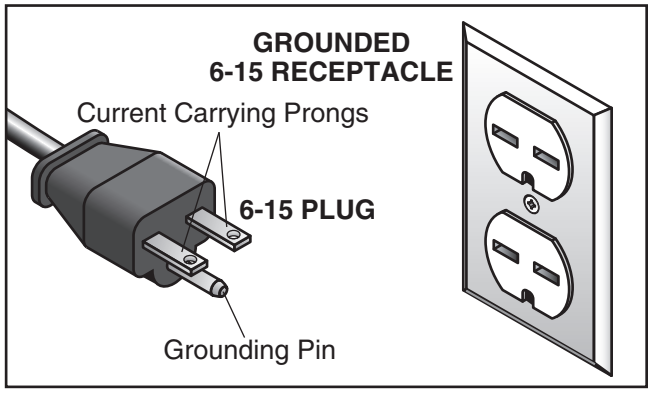
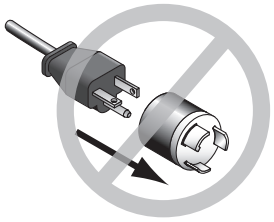


Figure 6. Typical 6-15 plug and receptacle.

⚠CAUTION



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.

⚠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.

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

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

Extension Cords

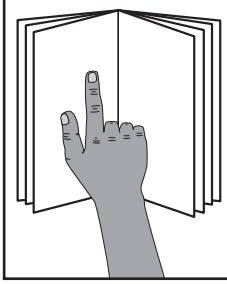
We do not recommend using an extension cord with this machine. If you must use an extension cord, only use it if absolutely necessary and only on a temporary basis.

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

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

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

SECTION 3: SETUP

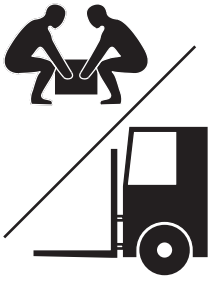


⚠WARNING

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

⚠WARNING

Wear safety glasses during the entire setup process!



⚠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.

Needed for Setup

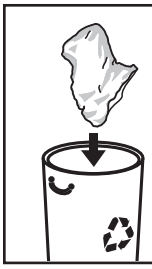
The following items are needed, but not included, for the setup/assembly of this machine.

Description	Qty
• Safety Glasses (for each person)	1
• Solvent/Cleaner	As Needed
• Shop Rags	As Needed
• Open-End Wrench or Socket 17mm	1 Ea.
• Straightedge 4'	1
• Phillips Screwdriver #2	1
• Dust Collection System	1
• 4" Dust Hose (length as needed)	1
• Another Person	1
• Lifting Equipment (Rated for at least 800 lbs.)	1

Unpacking

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

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



⚠WARNING

SUFFOCATION HAZARD!

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

Inventory

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

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

NOTICE

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

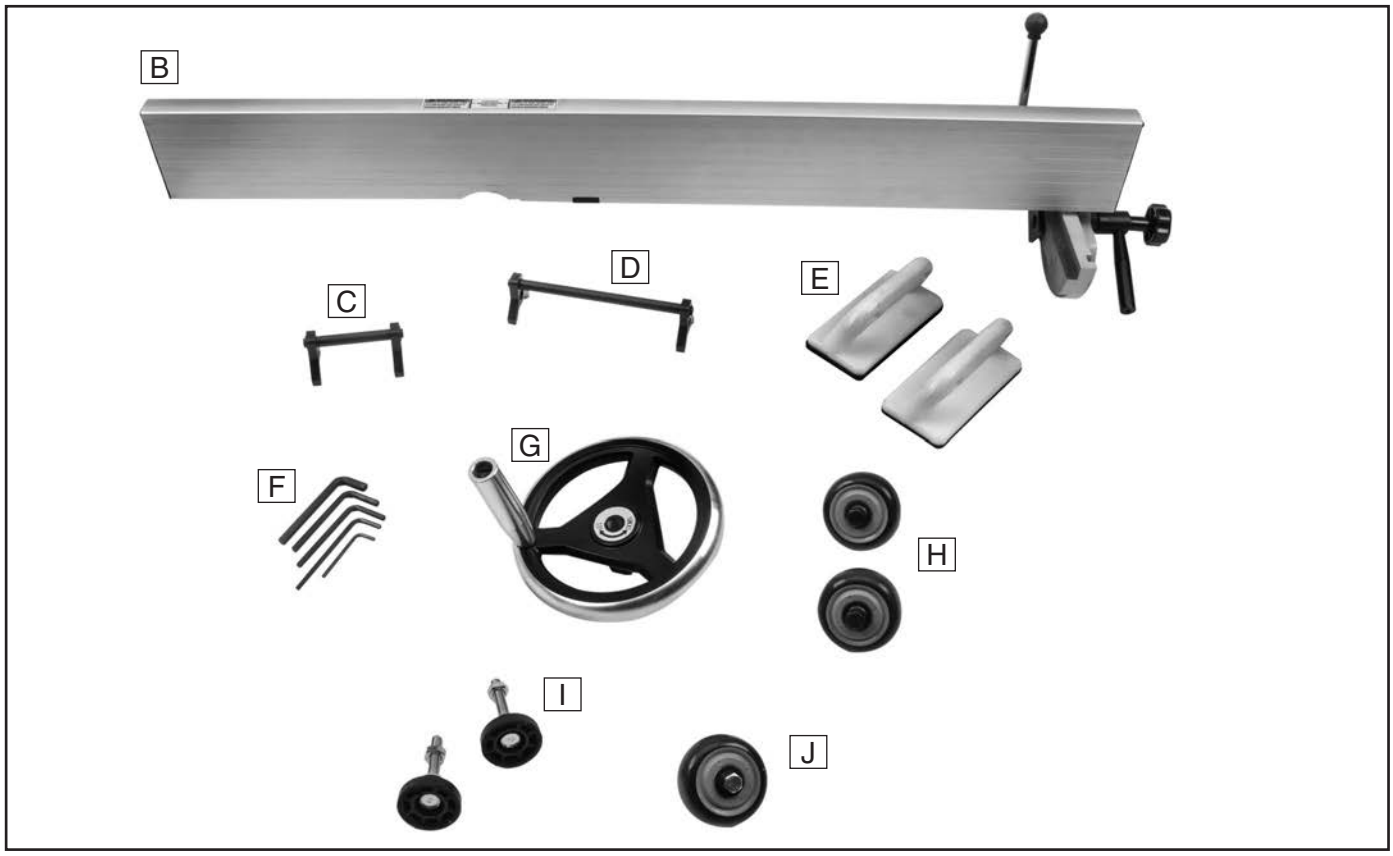


Figure 7. Component inventory.

Component Inventory (Figure 7)	Qty
A. Jointer/Planer (not shown)	1
B. Jointer Fence Assembly & Carriage	1
C. Jointer Knife-Setting Jig	1
D. Planer Knife-Setting Jig	1
E. Push Blocks	2

Component Inventory (Figure 7)	Qty
F. Hex Wrench 3, 4, 5, 6, 8mm	1 Ea.
G. Planer Table Elevation Handwheel	1
H. Wheel Assembly (Front)	2
I. Adjustable Feet	2
J. Foot Pedal Caster Wheel Assembly	1

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.

WARNING

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.

CAUTION

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 8. T23692 Orange Power Degreaser.

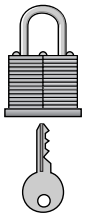
Site Considerations

Weight Load

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

Space Allocation

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



⚠CAUTION

Children or untrained people may be seriously injured by this machine. Only install in an access restricted location.

Physical Environment

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

Electrical Installation

Place this machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure to leave enough space around machine to disconnect power supply or apply a lockout/tagout device, if required.

Lighting

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

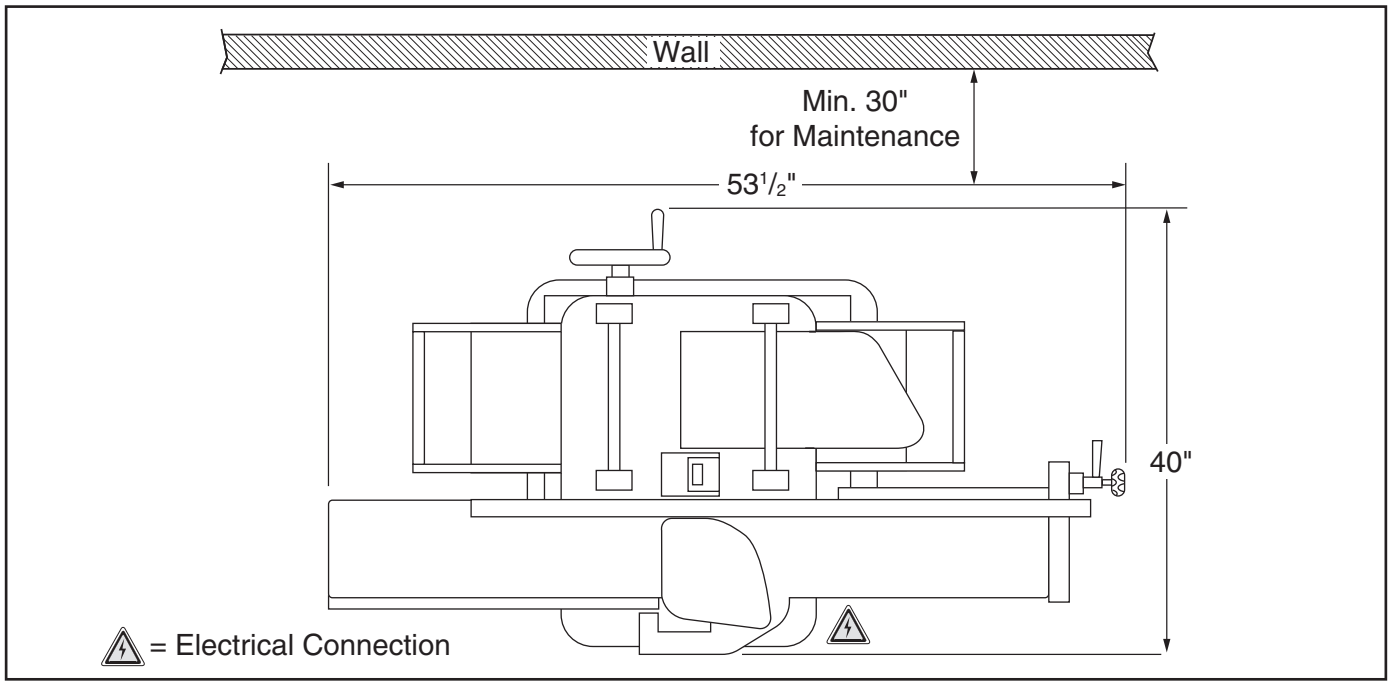


Figure 9. Minimum working clearances.

Assembly

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

⚠WARNING

This machine and its components are very heavy. Get lifting help or use power lifting equipment such as a forklift to move heavy items.

To assemble jointer/planer:

1. Install planer elevation handwheel (see **Figure 10**) with pre-installed M5-.8 x 20 cap screw and 5mm flat washer.

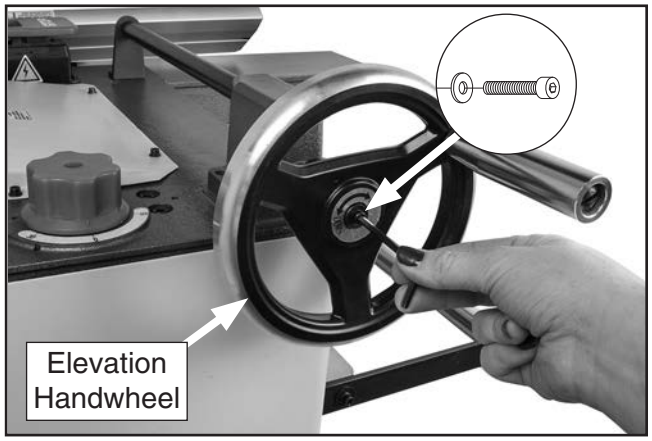


Figure 10. Installing planer elevation handwheel.

2. While an assistant pulls cutterhead guard back, insert lock plate into table channel (see **Figure 11**), then tighten knob to secure fence.

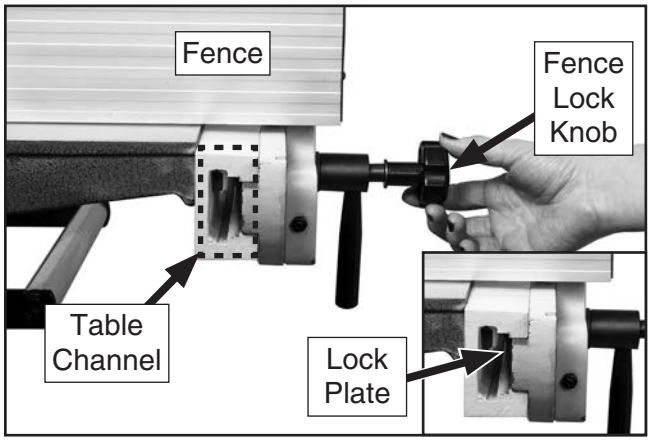


Figure 11. Attaching jointer fence to infeed table.

3. Attach accordion dust boot to back of jointer fence (see **Figure 12**) using (2) pre-installed M4-.7 x 10 Phillips head screws.

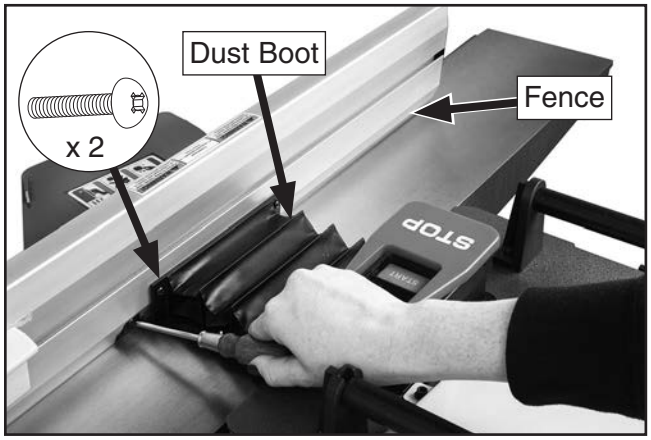


Figure 12. Installing accordion dust boot on jointer fence.

4. With the help of an assistant, tip machine enough to allow placement of two 4x4 blocks under backside of cabinet (see **Figure 13**), then remove access panels.

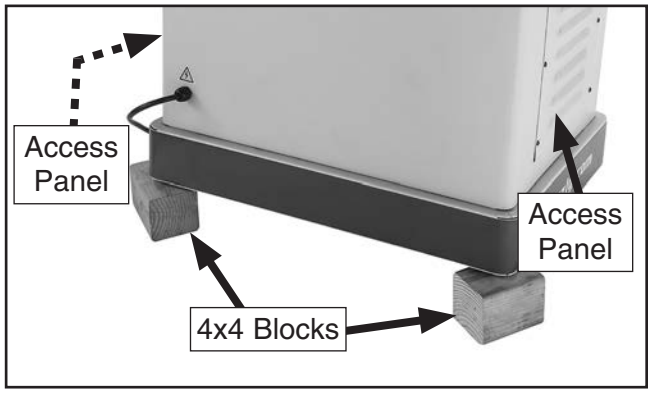


Figure 13. 4x4 block placement.

5. Attach (2) wheels to backside of cabinet with pre-installed hex bolts, lock washers, lock nuts, and wheel sleeves (see **Figure 14**). With help from an assistant, remove wood blocks and lower machine.

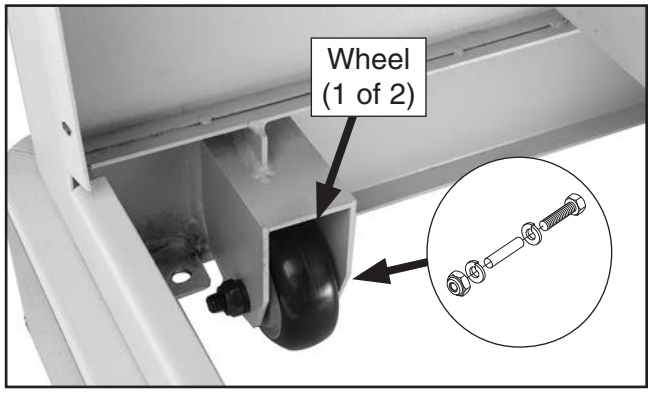


Figure 14. Wheel installation at backside of cabinet.

6. Lift front side of cabinet and place 4x4 wood blocks under cabinet, as shown in **Figure 15**.

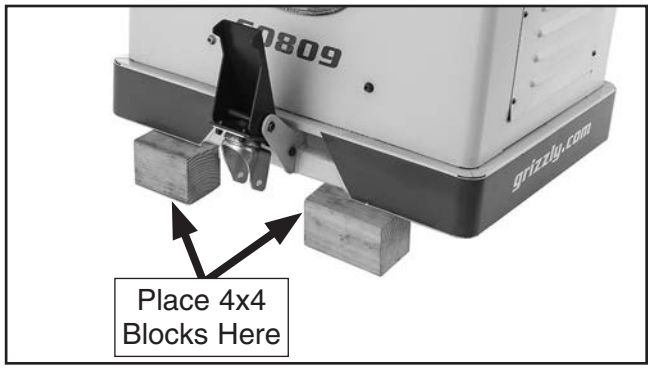


Figure 15. 4x4 block placement beneath cabinet.

7. Attach caster wheel to foot pedal assembly using pre-installed hex bolt, lock washers, lock nut, and wheel sleeve (see **Figure 16**).

Figure 16. Attaching caster wheel to foot pedal assembly.

8. Install (2) adjustable feet into threaded holes inside each corner of cabinet.

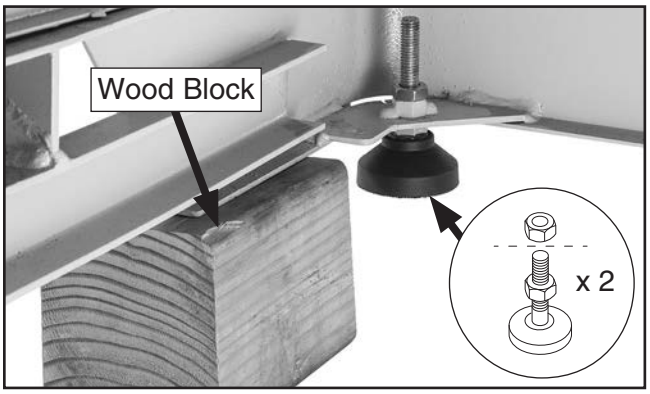


Figure 17. Adjustable foot installed.

9. With help from an assistant, remove 4x4 blocks and set machine on the ground.

⚠WARNING

The jointer outfeed table MUST be level with cutterhead knives when they are at top dead center (at their highest point during rotation). Otherwise, the workpiece may not properly feed past the cutterhead, which may result in kickback or related injuries.

10. Place straightedge on outfeed table so it extends over cutterhead, and use cutterhead pulley to rotate cutterhead until one of the knives is at top dead center (their highest point during rotation), as illustrated in **Figure 19**.

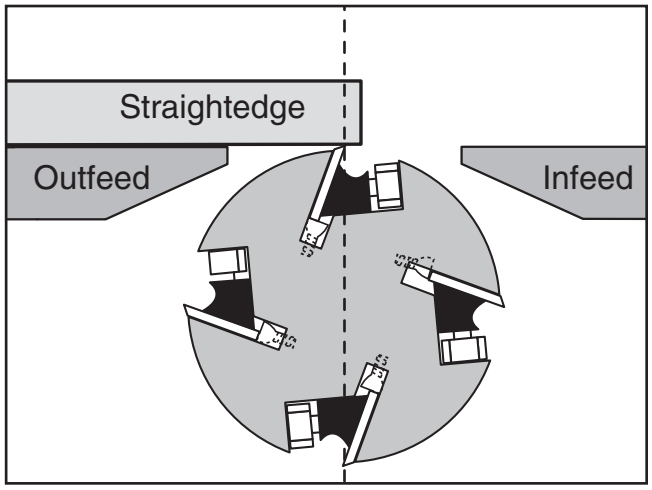


Figure 19. Using straightedge to check outfeed table height.

When outfeed table height is correctly set, knife (at top dead center) will barely touch straightedge, as illustrated in **Figure 19**.

— If knife lifts straightedge off table or is below straightedge, then outfeed table height must be reset (refer to **Setting Outfeed Table Height** on **Page 47** for detailed instructions).

Dust Collection

⚠CAUTION

This machine creates a lot of wood chips/dust during operation. Breathing airborne dust on a regular basis can result in permanent respiratory illness. Reduce your risk by wearing a respirator and capturing the dust with a dust-collection system.

Minimum 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 dust collection hose:

1. Fit 4" dust hose over dust port, as shown in **Figure 20**, and secure with included wire hose clamp.

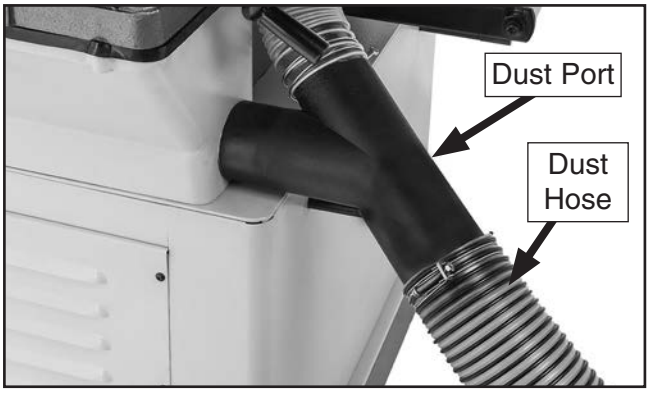


Figure 20. Dust hose attached to dust port.

2. Tug hose to make sure it does not come off.

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

Test Run

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

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

⚠WARNING

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

⚠WARNING

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

To test run machine:

1. Clear all setup tools away from machine.

2. Connect machine to power supply.

3. Turn machine ***ON***, verify motor operation, and then turn machine ***OFF***.

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

4. Insert disabling pin through switch button (see **Figure 21**).

Figure 21. Disabling pin inserted into button.

5. Try to start machine by pressing START button.

   — If the machine *does not* start, the switch disabling feature is working as designed. Congratulations! The test run is complete.

   — If the machine *does* start, immediately stop the machine. The switch disabling feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

Recommended Adjustments

Adjustments listed below have been performed at the factory and no further setup is required to operate your machine. However, we recommend verifying the following adjustments to ensure the best possible results from your new machine.

Factory adjustments that should be verified:

1. Cutterhead Adjustments (**Page 47**).

2. Jointer Depth Scale Calibration (**Page 50**).

3. Fence Stop Accuracy (**Page 51**).

4. Table Parallelism (**Page 53**).

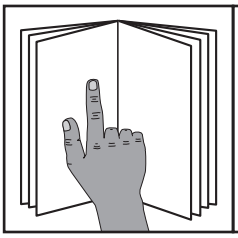
5. Check V-belt tension (**Page 43**).

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.



⚠WARNING

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

⚠WARNING

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

NOTICE

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

For your convenience, the operation of each machine has been separated. For typical planer operation, refer to **Page 25**.

Familiarize yourself with this process to better understand the controls and procedures explained throughout the **Operations** section.

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

1. Examines workpiece to verify it is safe and suitable for jointing, and places workpiece on table with flat side down.

   — If workpiece is cupped, operator surface joints cupped side first. Doing so ensures that it sits solidly on planer table during milling operation.

2. Adjusts fence for width of workpiece and locks it in place.

3. Adjusts fence tilt, if necessary.

4. Adjusts infeed table height to set depth of cut per pass.

5. Puts on safety glasses, respirator, and ear protection.

6. Turns machine ***ON***.

7. Using push blocks as needed, holds workpiece firmly against infeed table and fence, and slides it into cutterhead at a steady and controlled rate until entire length of workpiece has advanced beyond cutterhead to outfeed table.

8. Repeats cutting process until desired results are achieved.

9. Turns machine ***OFF***.

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

1. Examines workpiece to make sure it is suitable for planing.

2. Puts on safety glasses or face shield, a respirator, and ear protection.

3. Places workpiece on table with flat side down, and correctly adjusts table height for workpiece thickness and depth of cut.

   — If workpiece is cupped, operator surface planes workpiece on jointer until cupped side is flat. Doing so ensures that it sits solidly on planer table during operation.

4. When all safety precautions have been taken, turns machine ***ON***.

5. Stands to one side of planer path to reduce risk of kickback injuries, then feeds workpiece into planer until infeed roller grabs it.

   Note: *Infeed and outfeed rollers control feed rate of workpiece as it passes through planer. Operator does not push or pull on workpiece.*

   — If cut is too deep and bogs down planer, operator immediately reduces depth of cut.

6. Once workpiece is clear of outfeed roller and stops moving, operator removes workpiece from outfeed table and measures workpiece thickness. If further planing is required, operator raises table slightly (approximately ¼ to ½ turn of table height handwheel), then feeds workpiece into front of planer again.

7. Operator continues process until desired thickness is achieved, then turns machine ***OFF***.

Wood Types

The species of wood, as well as its condition, greatly affects the depth of cut effectively taken with each pass.

The chart in the figure below shows the Janka Hardness Rating for a number of commonly used species. The larger the number, the harder the workpiece, and the less material should be removed in any one pass for good results.

Note: *The Janka Hardness Rating is expressed in pounds of force required to embed a 0.444" steel ball into the surface of the wood to a depth equal to half the ball's diameter.*

Species	Janka Hardness
Ebony	3220
Red Mahogany	2697
Rosewood	1780
Red Pine	1630
Sugar Maple	1450
White Oak	1360
White Ash	1320
American Beech	1300
Red Oak	1290
Black Walnut	1010
Teak	1000
Black Cherry	950
Cedar	900
Sycamore	770
Douglas Fir	660
Chestnut	540
Hemlock	500
White Pine	420
Basswood	410
Eastern White Pine	380
Balsa	100

Figure 22. Janka Hardness Rating for some common wood species.

Stock Inspection & Requirements

Basic rules to follow before milling stock on a jointer or thickness planer:

- **Large/Loose Knots:** Loose knots can become dislodged and kickback during operation, causing machine damage. Ensure workpieces that do not have large/loose knots.

- **Excessive Warping:** Workpieces with excessive cupping, bowing, or twisting are dangerous to cut because they are unstable and often unpredictable when being cut. DO NOT use workpieces with these characteristics!

- **DO NOT joint or surface plane against the grain direction.** Cutting against the grain increases the likelihood of stock kickback, as well as tear-out on the workpiece.

- **Jointing and surface planing with the grain produces a better finish and is safer for the operator.** Cutting with the grain is described as feeding the stock so the grain points down and toward you on the jointer (**Figure 23**) or away from you on the planer (**Figure 24**), as viewed from the edge.

  Note: *If the grain changes direction along the edge of the board, decrease the cutting depth and make additional passes.*

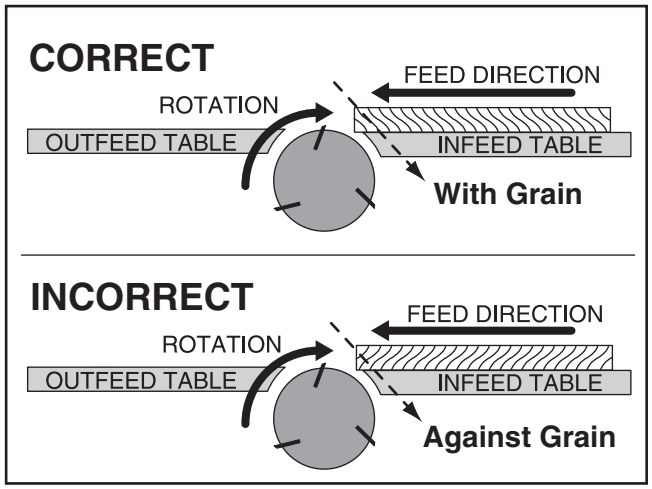


Figure 23. Correct and incorrect grain alignment to cutterhead (jointer).

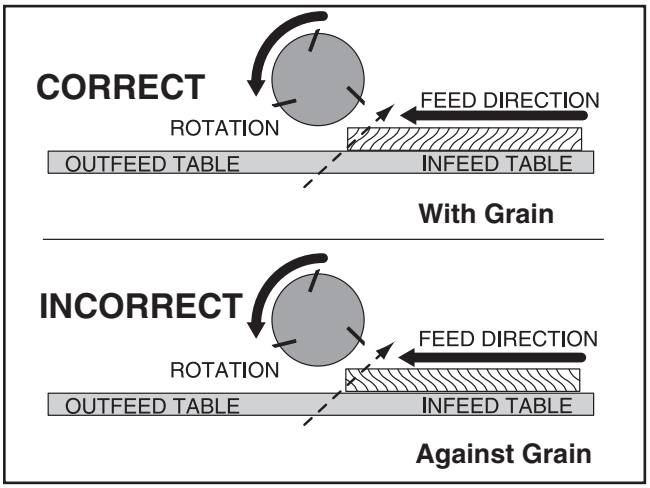


Figure 24. Correct and incorrect grain alignment to cutterhead (planer).

- **Minor Cupping:** Workpieces with slight cupping can be safely supported if the cupped side is facing the table. On the contrary, a workpiece supported on the bowed side will rock during operation and could cause severe injury from kickback.

- **Remove foreign objects from the stock.** Make sure that any stock you process with the jointer/planer is clean and free of any dirt, nails, staples, tiny rocks or any other foreign objects, which if they hit the knives and are drawn into the dust collector, may cause a fire hazard. The particles may also damage the knives. Wood stacked on a concrete floor can have small pieces of stone or concrete pressed into the surface.

- **Only process natural wood fiber through your jointer/planer.** Never joint MDF, particle board, plywood, laminates or other synthetically made materials.

- **Make sure all stock is sufficiently dried before jointing or planing.** Wood with a moisture content over 20% will cause unnecessary wear on the knives and poor cutting results. Excess moisture can also hasten rust and corrosion.

- **Scrape all glue off of boards before planing.**

- **Keep your work area clear.**

Jointer Specific Rules:

- Always joint with cupped side of workpiece facing down, otherwise workpiece could rock during cut, increasing likelihood of kickback.

- Make sure your workpiece exceeds the minimum dimension requirements (see Figures 25 & 26) before edge jointing or surface planing, or it may break or kick back during the operation!

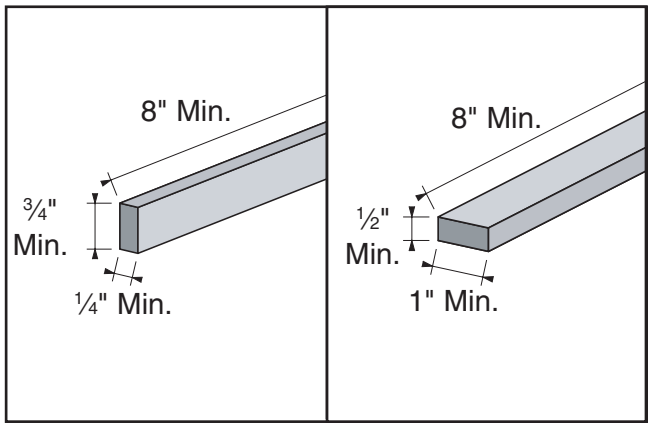


Figure 25. Minimum dimensions for edge jointing and surface planing (jointer).

Thickness Planer Specific Rules:

- Use the full width of the planer. Alternate between the left, the right, and the middle when feeding narrower lumber into the planer. Your knives will remain sharp much longer.

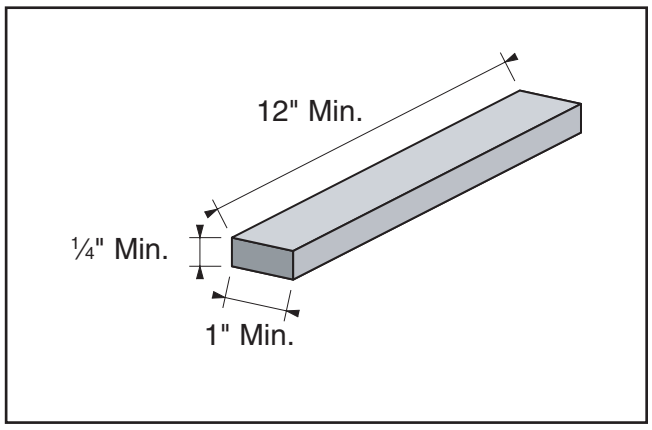
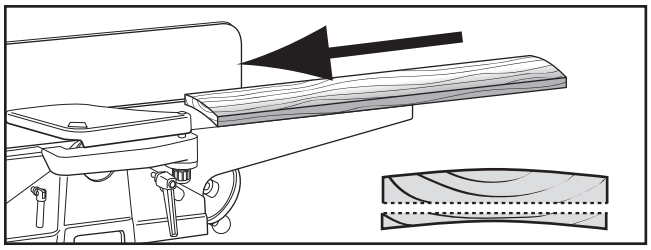


Figure 26. Minimum dimensions for surface planing (thickness planer).

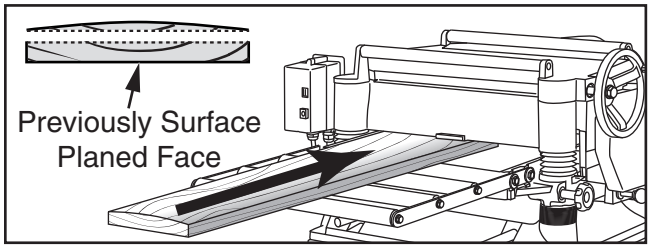
Squaring Stock

Squaring stock involves four steps performed in the order below:

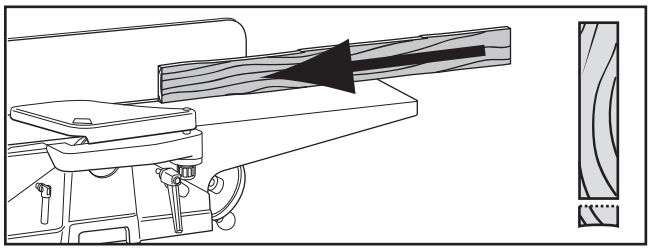
1. **Surface Plane on Jointer**—Concave face of workpiece is surface planed flat with jointer.



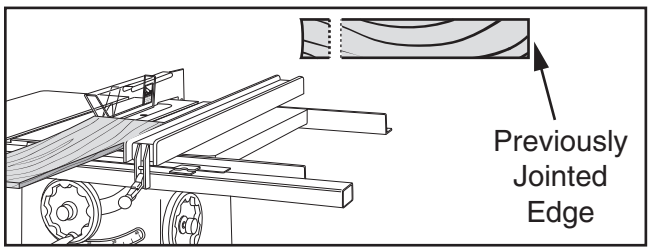
2. **Surface Plane on a Thickness Planer**—Opposite face of workpiece is surface planed flat with thickness planer.



3. **Edge Joint on Jointer**—Concave edge of workpiece is jointed flat with jointer.



4. **Rip Cut on a Table Saw**—Jointed edge of workpiece is placed against a table saw fence and opposite edge cut off.



Planing Tips

- Always true cupped or warped stock on jointer before planing.
- Inspect your lumber for twisting or cupping, and surface cupped face on jointer (if necessary) before planing workpiece.
- Scrape off all glue when planing glued-up panels. Dried glue can quickly dull knives.
- DO NOT plane more than one piece at a time.
- Never remove more than the recommended amount of material on each pass. Only remove a small amount of material on each pass, especially when planing wide or dense stock.
- Support the workpiece on both ends. Get assistance from another person if you are planing long lumber, or use roller stands to support the workpiece.
- Measure the workpiece thickness with calipers to get exact results.
- Carefully inspect all stock to make sure it is free of large knots or foreign objects that may damage your knives, cause kickback, or be ejected from the planer.
- Use the entire width of the planer to wear knives evenly. With narrow workpieces, alternate between far left, far right, and the middle of the table. Your knives will remain sharp much longer.
- To avoid "chip marks," always plane WITH the grain direction of the wood. Never plane cross-grain or end-grain.
- Plane ONLY natural wood fiber. Do not plane wood composites or other materials that could break up in the planer and cause operator injury or damage to planer.

Planing Cutting Problems

Below is a list of wood characteristics you may encounter when planing. The following descriptions of defects will give you some possible answers to problems you may encounter while planing different materials. Possible solutions follow the descriptions.

Chipped Grain

Problem: Usually a result of cutting against the grain, planing lumber with knots or excessive amount of cross grain, or using dull knives/inserts.

Note: *Some amount of chipping is normal with highly figured wood.*

Solution: Decrease the depth of cut. Reduce the feed rate. Inspect your lumber and determine if its grain pattern is causing the problem. If the lumber does not show substantial crossgrain, inspect your knives/inserts.

Fuzzy Grain

Problem: Usually caused by surfacing lumber with too high of a moisture content. Sometimes fuzzy grain is an unavoidable characteristic of some woods, such as basswood. Fuzzy grain can also be caused by dull knives/inserts.

Solution: Check the lumber with a moisture meter. If moisture is greater than 20%, sticker the lumber and allow it to dry. Otherwise, inspect the knife/insert condition.

Snipe

Problem: Occurs when board ends have more material removed than the rest of the board. Usually caused when the workpiece is not properly supported as it goes through the machine. In many cases, however, a small amount of snipe is inevitable.

Solution: Hold workpiece up slightly as it leaves the outfeed end of the planer. The best way to deal with snipe is by planing lumber longer than your intended work length and then cutting off the excess after planing is completed.

Pitch & Glue Build-up

Problem: Glue and resin buildup on the rollers and cutterhead will cause overheating by decreasing cutting sharpness while increasing drag in the feed mechanism. The result can include scorched lumber, uneven knife marks, and chatter.

Solution: Clean the rollers and cutterhead.

Chip Marks or Indentations

Problem: Chip indentation or chip bruising is the result of wood chips not being thrown away from the cutterhead and out of the machine. Instead they are carried around the cutterhead, deposited on the planed surface and crushed by the outfeed roller. Some of the causes of chip indentation are:

- Wood chips/sawdust not being properly expelled from the cutterhead.
- The type of lumber being planed. Certain species have a tendency to chip bruise.
- A high moisture content (over 20%) or surface moisture.
- Dull knives.
- Excessive depth of cut.

Solution:

- Use a proper dust collection system; ensure chip deflector is not clogged.
- Lumber must be completely dry, preferably kiln-dried (KD). Air-dried (AD) lumber must be seasoned properly and have no surface moisture. DO NOT surface partially air dried (PAD) lumber.
- Make sure planer knives are sharp.
- Reduce depth of cut.

Rippled Cut

Problem: Regularly spaced indentations across face of workpiece are caused by excessive outfeed roller pressure or excessive feed rate.

Solution: Reduce outfeed roller pressure; reduce feed rate.

Setting Planer Depth of Cut

Table Movement per Handwheel Revolution
One Full Revolution.....1/16"
Range of Material Thickness..... 1/8"–6"

The depth of cut on a planer means the amount of material that is removed from the top of the workpiece as it passes underneath the cutterhead.

The depth of cut is set by adjusting the distance of the table below the cutterhead. This distance is the thickness of the workpiece minus the depth of cut. The planing depth of cut is controlled by using the table height handwheel on the right side of the machine. Rotating the handwheel clockwise raises the table.

Although the correct depth of cut varies according to wood hardness and workpiece width, we recommend the maximum depth of cut (per pass) be no more than 1/16". A series of light cuts will give better end results and put less stress on the planer than trying to take off too much material in a single pass.

The depth of cut can be referenced directly from the inch/millimeter scale on the front of the planer, as shown in **Figure 27**.

Note: *The scale functions as a general guide only, and is not intended for low-tolerance, precision results.*

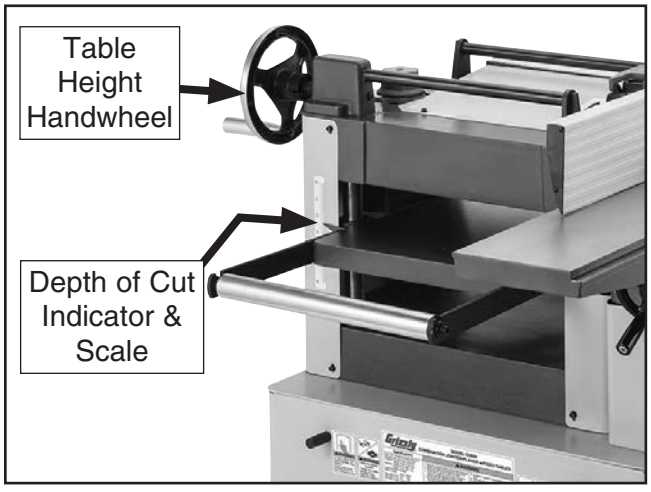


Figure 27. Depth-of-cut indicator and scale.

Setting Planer Feed Rate

The infeed and outfeed rollers move the workpiece through the planer while keeping it flat and providing a consistent rate of movement. The speed that these rollers move the workpiece through the planer is measured in Feet Per Minute (FPM) and is typically referred to as the "feed rate."

Generally, low feed rates are used for dimensioning passes, while higher feed rates are used for finishing passes.

NOTICE

Only change feed rate when planer is running. However, never attempt to change feed rate during any cutting operations or damage to gearbox will result.

The planer feed rate is controlled by rotating the knob shown in **Figure 28** to the indicated FPM setting.

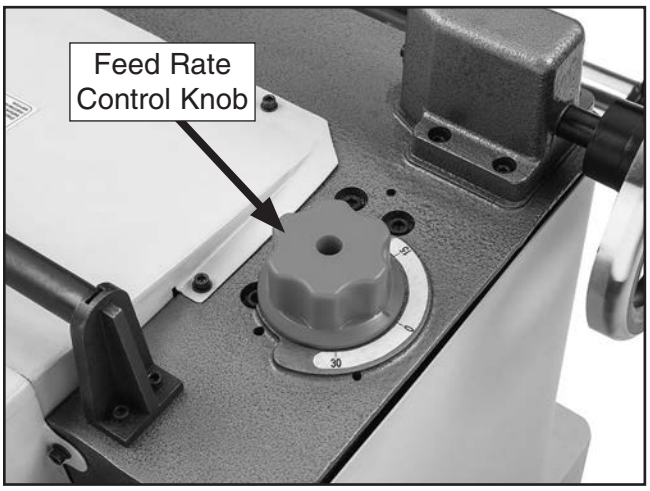


Figure 28. Planer feed rate control knob.

Figure 29 illustrates the three different positions of the feed rate control knob.

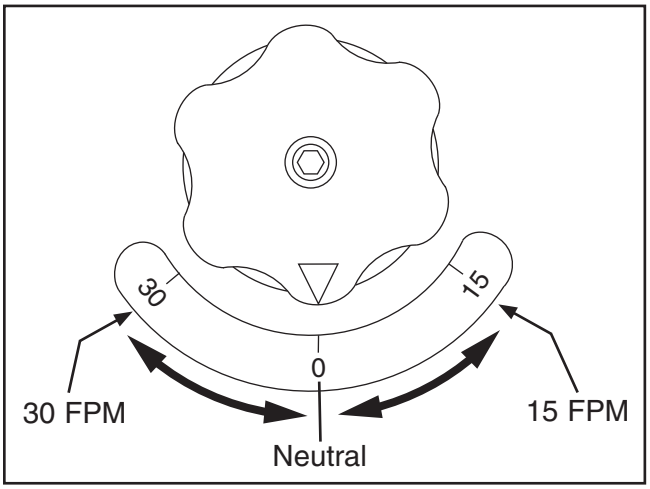


Figure 29. Feed rate control knob positions (numbers shown indicate FPM).

Setting Jointer Depth of Cut

The depth of cut on a jointer affects the amount of material removed from the bottom of the workpiece as it passes over the cutterhead.

The depth of cut is set by adjusting the height of the infeed table relative to the cutterhead knives at TDC (top dead center). **IMPORTANT:** The outfeed table must always remain locked in place and be set even with the knives at TDC. Otherwise, the workpiece will not be able to smoothly pass over the cutterhead and will either hit the outfeed table (if too high) or teeter on the spinning cutterhead (if too low), increasing risk of kickback.

DO NOT exceed ⅛" depth of cut per pass on this machine or kickback and serious injury may occur!

Adjusting Infeed Table Height

To adjust the infeed table height, loosen the infeed table lock, rotate the infeed table handwheel to raise or lower the table, and then tighten the lock to secure the setting (see **Figure 30**).

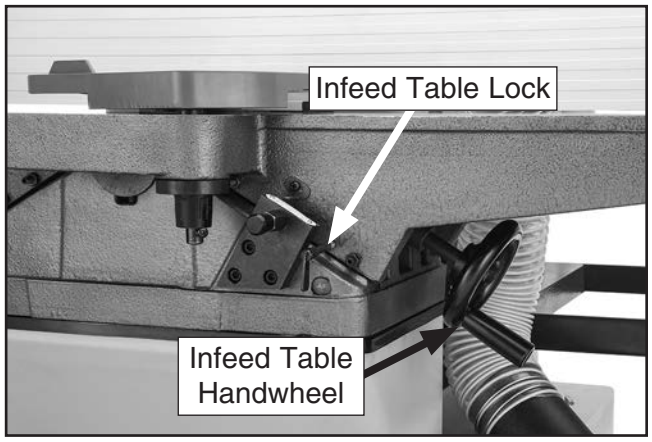


Figure 30. Infeed table controls located on front and right side of machine.

Depth-of-Cut Scale

The depth of cut can be referenced directly from the depth scale located on the front of the jointer (see **Figure 31**).

Note: *The depth scale can be calibrated or "zeroed" if it is not correct. Refer to* ***Calibrating Depth Scale*** *on* ***Page 50*** *for more information.*

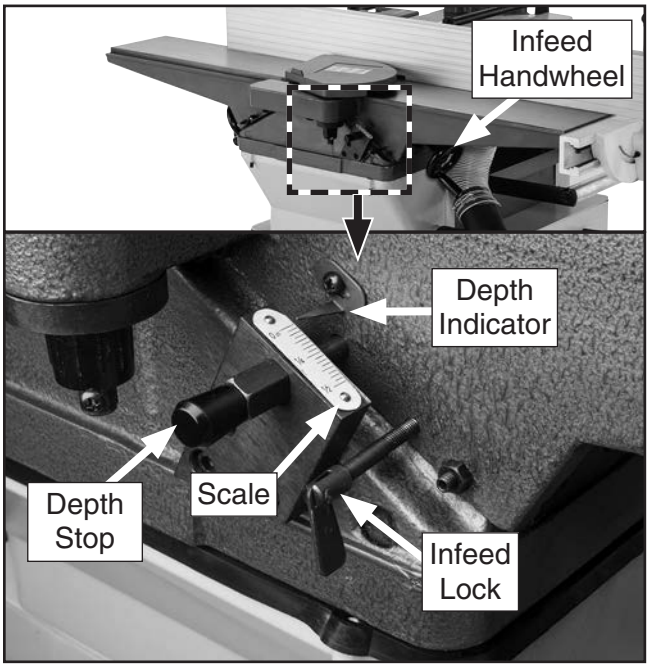


Figure 31. Location of depth-of-cut scale components.

Depth Stop

The depth stop is preset at ⅛", which is the maximum depth of cut (per pass) for most jointing operations. The depth-of-cut scale displays the depth of cut in inches and goes up to ½" for rabbet cutting operations (see **Figure 31**).

To engage the depth stop, rotate infeed handwheel clockwise to raise infeed table to its top position, as shown in **Figure 31**. The depth stop will automatically spring into the hole in the infeed table.

To increase depth of cut, pull outward on depth stop, turn infeed handwheel counterclockwise, lower table to the desired height, then tighten the infeed lock (see **Figure 31**).

Surface Planing

The purpose of surface planing (see example **Figures** below) on the jointer is to make one flat face on a piece of stock to prepare it for thickness planing on a planer.

⚠WARNING

Failure to use push blocks when surface planing could result in your hands contacting rotating cutterhead, which will cause serious personal injury. ALWAYS use push blocks when surface planing on jointer!

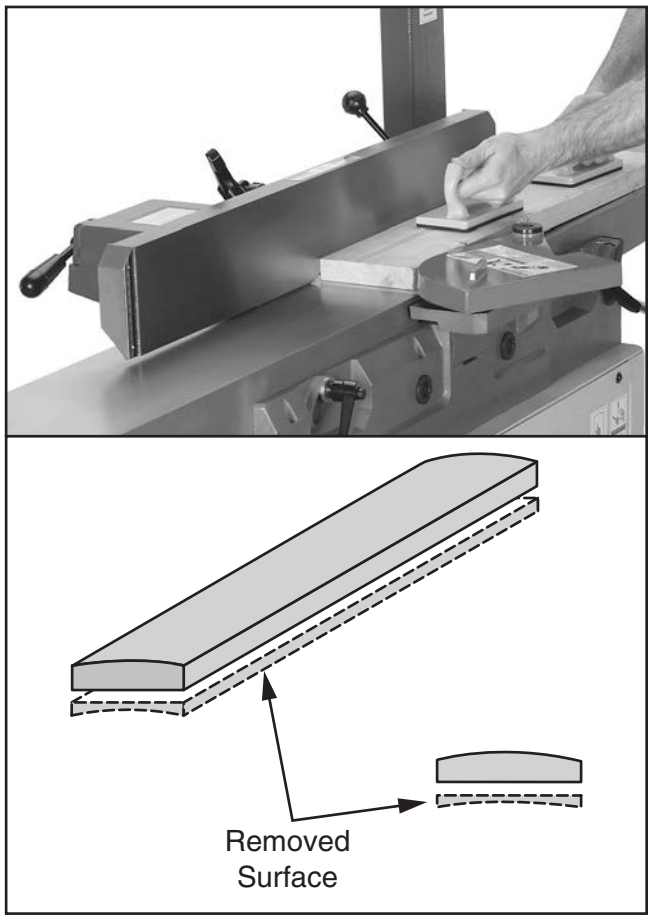


Figure 32. Example photo of a surface planing operation.

NOTICE

If you are not experienced with a jointer, set depth of cut to 0", and practice feeding workpiece across tables as described. This will help you prepare for actual operations.

To surface plane on jointer:

1. Inspect stock to ensure it is safe and suitable for the operation (see **Stock Inspection & Requirements** section).

2. Set infeed table height to desired cutting depth for each pass.

   ⚠ **CAUTION:** To minimize risk of kickback, do not exceed a cutting depth of 1/16" per pass when surface planing.

3. Set fence to 90°.

4. Start jointer.

5. Place workpiece firmly against fence and infeed table.

   ⚠ **CAUTION:** To ensure workpiece remains stable during cut, concave sides of workpiece must face toward table and fence.

6. Feed workpiece completely across cutterhead while keeping it firmly against fence and tables during the entire cut.

   ⚠ **CAUTION:** Keep hands at least 4" away from cutterhead during the entire cut. Instead of allowing a hand to pass directly over cutterhead, lift it up and over cutterhead, and safely reposition it on the outfeed side to continue supporting workpiece. Use push blocks whenever practical to further reduce risk of accidental hand contact with cutterhead.

7. Repeat **Step 6** until entire surface is flat.

   Tip: *When squaring up stock, cut opposite side of workpiece with a planer instead of the jointer to ensure both sides are parallel.*

Edge Jointing

Edge jointing (see example **Figures** below) produces a flat and true surface along the side of a workpiece by removing uneven areas. It is an essential step for squaring up warped or rough stock and when preparing a workpiece for joinery or finishing.

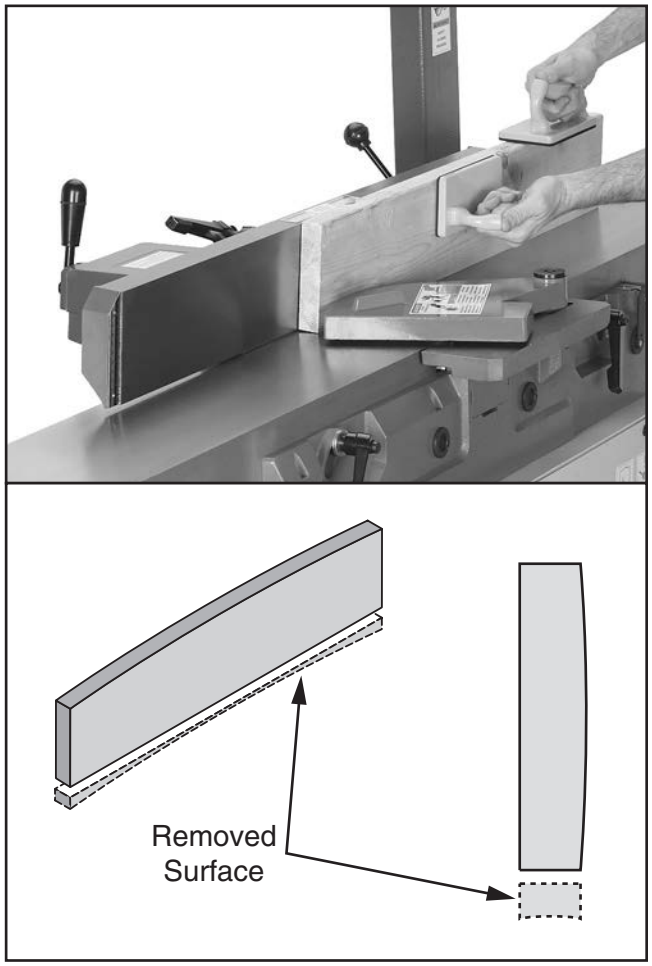


Figure 33. Example photo of an edge jointing operation.

NOTICE

If you are not experienced with a jointer, set depth of cut to 0", and practice feeding workpiece across tables as described. This will help you prepare for actual operations.

To edge joint on jointer:

1. Inspect stock to ensure it is safe and suitable for the operation (see **Stock Inspection & Requirements** section).

2. Set infeed table height to desired cutting depth for each pass.

   ⚠ **CAUTION:** To minimize risk of kickback, do not exceed a cutting depth of ⅛" per pass.

3. Set fence to 90°.

4. Start jointer.

5. Place workpiece firmly against fence and infeed table.

   ⚠ **CAUTION:** To ensure workpiece remains stable during cut, concave sides of workpiece must face toward table and fence.

6. Feed workpiece completely across cutterhead while keeping it firmly against fence and tables during the entire cut.

   ⚠ **CAUTION:** Keep hands at least 4" away from cutterhead during the entire cut. Instead of allowing a hand to pass directly over cutterhead, lift it up and over cutterhead, and safely reposition it on the outfeed side to continue supporting workpiece. Use push blocks whenever practical to further reduce risk of accidental hand contact with cutterhead.

7. Repeat **Step 6** until the entire edge is flat.

   Tip: *When squaring up stock, cut opposite edge of workpiece with a table saw instead of the jointer—otherwise, both edges of workpiece will not be parallel with each other.*

Bevel Cutting

Bevel cuts (see example **Figures** below) can be made by setting the fence at the desired angle and feeding the workpiece firmly along the fence face, with the bottom inside corner firmly against the table. The cutting process typically requires multiple passes or cuts to bevel the entire edge of a workpiece.

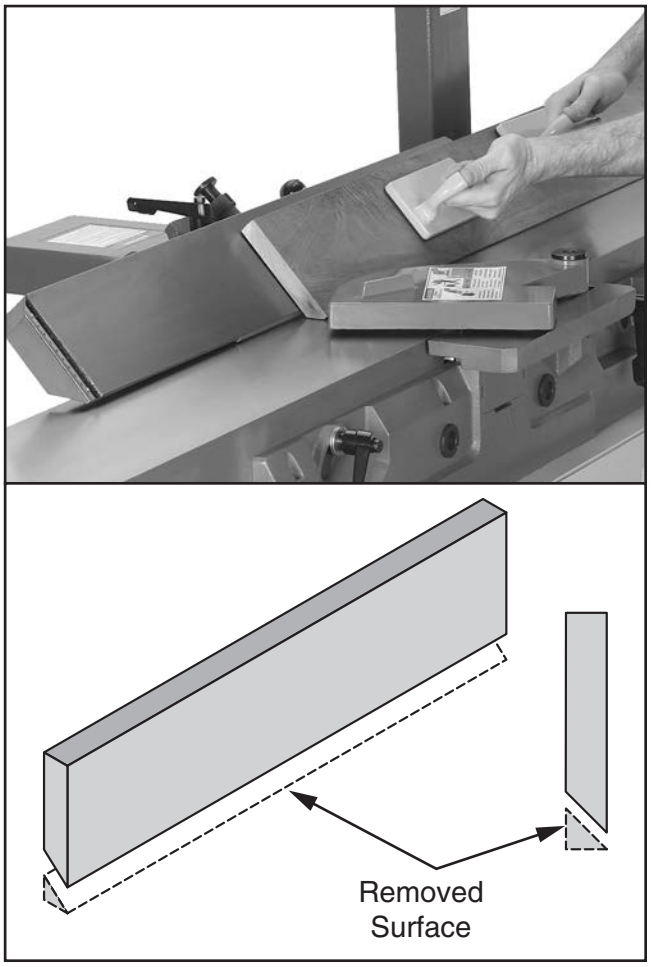


Figure 34. Example photo of fence setup for a bevel cut of 45°.

NOTICE

If you are not experienced with a jointer, set depth of cut to 0", and practice feeding workpiece across tables as described. This will help you prepare for actual operations.

To bevel cut on jointer:

1. Inspect stock to ensure it is safe and suitable for the operation (see **Stock Inspection & Requirements** section).

2. Set infeed table height to cutting depth desired for each pass.

   ⚠ **CAUTION:** Cutting depth for bevel cuts is typically between 1/16" and 1/8", depending on hardness and width of stock.

3. Set fence tilt to desired angle of cut.

4. Place workpiece against fence and infeed table with concave side face down.

5. Start jointer.

6. With a push block in your leading hand, press workpiece against table and fence with firm pressure, and feed workpiece over cutterhead with a push block in your trailing hand.

   ⚠ **CAUTION:** When your leading hand gets within 4" of the cutterhead, lift it up and over cutterhead, and place push block on portion of the workpiece once it is 4" past cutterhead. Now, focus your pressure on outfeed end of the workpiece while feeding, and repeat same action with your trailing hand when it gets within 4" of cutterhead. To help keep your hands safe, DO NOT let them get closer than 4" from moving cutterhead at any time during operation!

7. Repeat cutting process, as necessary, until you are satisfied with the results.

Rabbet Cutting

The purpose of rabbet cutting is to remove a section of the workpiece edge (see example **Figures** below). When combined with another rabbet cut edge, the rabbet joints create a simple, yet strong method of joining stock.

⚠WARNING

When cutterhead guard is removed, attempting any other cut besides a rabbet directly exposes operator to moving cutterhead. To minimize risk of injury and unnecessary exposure to cutterhead, always

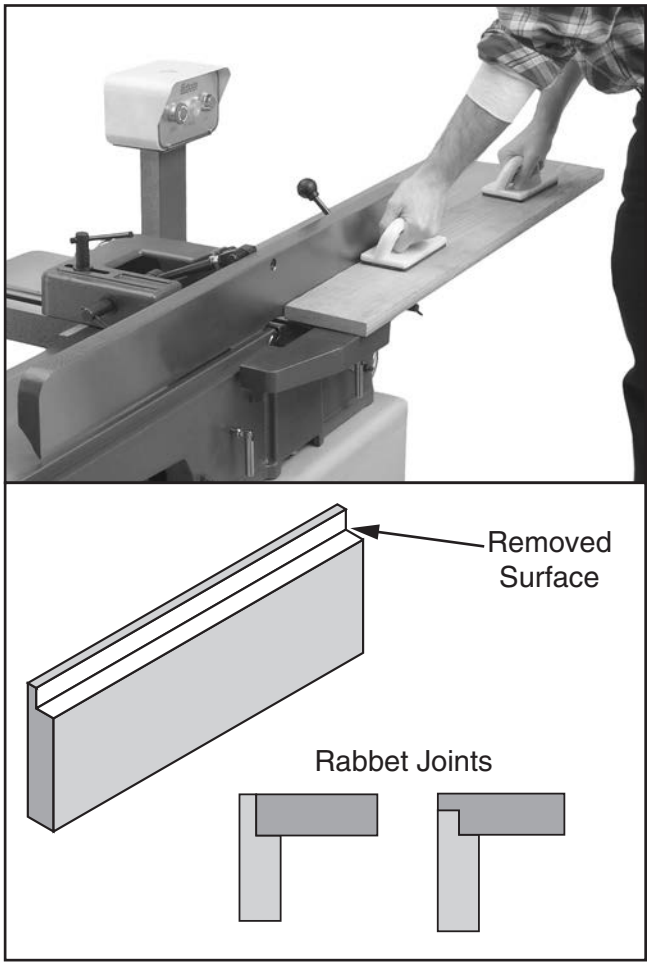


Figure 35. Example photo of typical rabbet cutting operation.

NOTICE

If you are not experienced with a jointer, set depth of cut to 0", and practice feeding workpiece across tables as described. This will help you prepare for actual operations.

4. Set fence to 90° and near front of jointer, so amount of exposed cutterhead in front of fence matches size of desired rabbet.

5. Start jointer.

6. Place workpiece firmly against fence and infeed table.

   ⚠ **CAUTION:** To ensure workpiece remains stable during cut, concave sides of workpiece must face toward table and fence.

7. Feed workpiece completely across cutterhead while keeping it firmly against fence and tables during entire cut.

   ⚠ **CAUTION:** Keep hands at least 4" away from cutterhead during the entire cut. Instead of allowing a hand to pass directly over cutterhead, lift it up and over cutterhead, and safely reposition it on the outfeed side to continue supporting workpiece. Use push blocks whenever practical to further reduce risk of accidental hand contact with cutterhead.

8. Repeat **Step 7** until rabbet is cut to depth.

9. Re-install cutterhead guard if removed in **Step 3**.

SECTION 5: ACCESSORIES

WARNING

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

NOTICE

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

W1211A—Jointer Pal® Magnetic Knife Gauge (For HSS & Cobalt Knives)
W1212—Jointer Pal® Magnetic Knife Gauge (For Carbide Knives)
This magnetic knife-setting system lets you set jointer knives in perfect alignment every time!

Figure 36. W1211A Jointer Pal® Knife Gauge.

D1123—Jointer/Planer Knife Hone
This handy tool sharpens flat and beveled surfaces quickly and easily. Great for touch-ups.

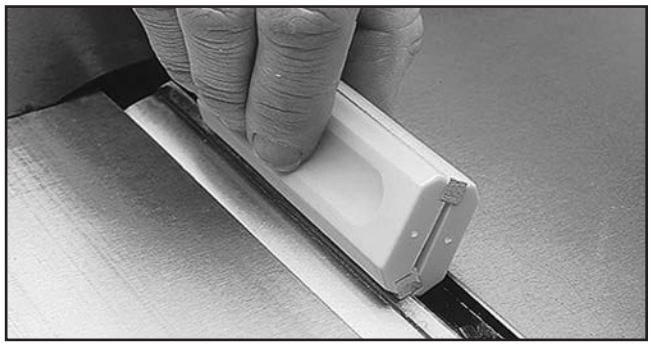


Figure 37. D1123 Jointer Knife Hone.

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
H7194—Bifocal Safety Glasses 1.5

Figure 38. Assortment of basic eye protection.

H2301—Pair of Planer Pals®
Save time and cutting accuracy by setting your knife height perfect every time. Planer Pals feature precision magnets to hold blades to within ±0.001" every time.

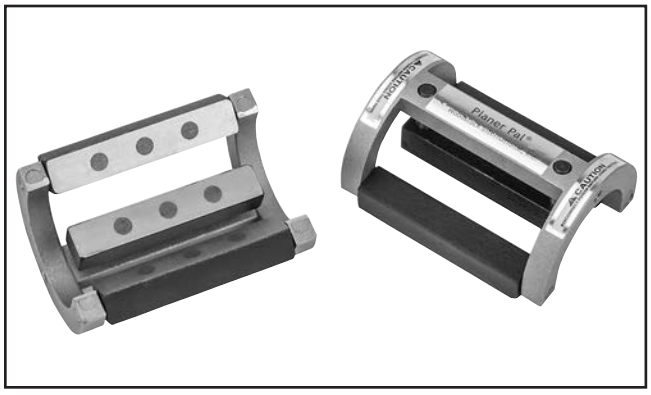


Figure 39. Planer Pals.

G6697—6" x 1" x ⅛" HSS Jointer Knives, Set of 3
G4517—13" x ⅝" x ⅛" HSS Planer Knives, Set of 3
These knives are made from high-speed steel. All sets are balanced to within one gram.

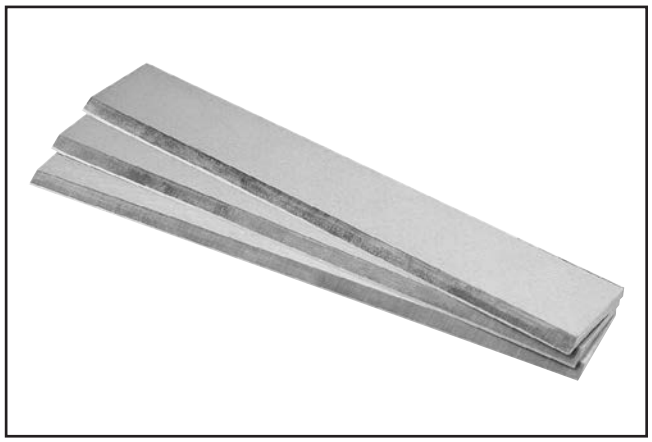


Figure 40. Replacement Knives for G0809 Jointer.

G3182—Dust Collection Kit #2
Dust Collection Kit #2 takes our dust collection kit concept a step further by providing the necessary hoses, clamps, hoods, and fittings to connect two woodworking machines to a dust collector. Air flow to each machine is controlled by a blast gate. Kit comes complete with comprehensive instructions.

Kit includes:
- (2) W1007 4" Blast Gates
- (2) W1031 4" x 10' Hose
- (1) W1004 Table Saw Dust Hood 4" OD
- (1) W1010 Universal Dust Hood 4" OD
- (1) W1015 Y-Fitting 4" x 4" x 4" OD
- (10) W1317 Wire Hose Clamps

Figure 41. Model G3182 Dust Collection Kit #2.

T21147—Dispoz-A-Blade® System for 6" Jointers
(Includes 3 Holders & Knife Inserts)
T21156—Dispoz-A-Blade® Knife Inserts for 6" Jointers (Set of 3)
T21160—Cobalt Knife Inserts for 6" Jointers (Set of 3)
Install a Dispoz-A-Blade® Knife system in your new jointer and save up to 70% on knife replacements for the life of your jointer. Each knife insert is double-edged, so you get two knives in one, and is indexed so that all knife inserts can be installed at the same height in just minutes. Yes, that means you can throw away the knife jig!

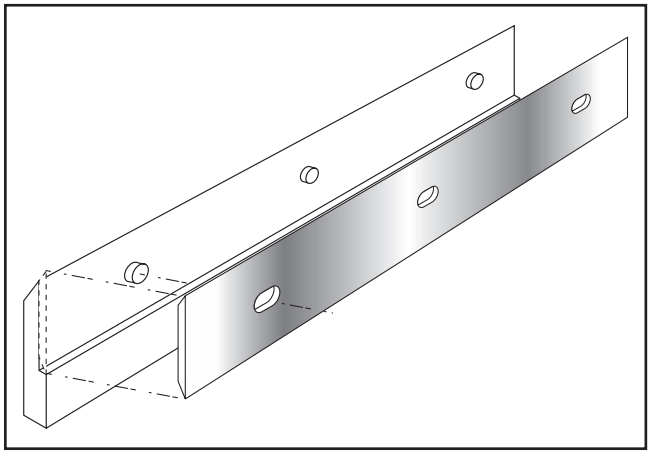
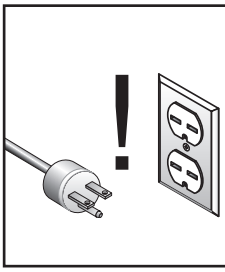


Figure 42. Dispoz-A-Blade® Holder and Knife.

H2499—Small Half-Mask Respirator
H3631—Medium Half-Mask Respirator
H3632—Large Half-Mask Respirator
H3635—Cartridge Filter Pair P100
If you work around dust everyday, a half-mask respirator can be a lifesaver. Also compatible with safety glasses!

Figure 43. Half-mask respirator with disposable cartridge filters.

SECTION 6: MAINTENANCE



⚠WARNING

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

Schedule

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

Daily (or More Frequently as Needed)
- Vacuum all dust on and around the machine.
- Wipe down tables and all other unpainted cast-iron with a metal protectant.
- Check for/repair worn or damaged wires.
- Check/replace damaged cutterhead or blades (**Page 47**).
- Check/retighten loose mounting bolts.
- Check/resolve any other unsafe condition.

Monthly (or More Frequently as Needed)
- Belt tension, damage, or wear (**Page 43**).
- Clean/vacuum dust buildup from inside stand and off of motor.

Cleaning & Protecting

The cleaning process for this machine is simple. 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. Treat all unpainted cast iron and steel with a non-staining lubricant after cleaning.

Protect the unpainted cast iron surfaces on the table by wiping the table clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces.

Keep tables rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9.

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

Figure 44. Recommended products for protecting unpainted cast-iron and steel.

Lubrication

Since all bearings are sealed and permanently lubricated, simply leave them alone until they need to be replaced. DO NOT lubricate them.

It is essential to clean components before lubricating them because dust and chips build up on lubricated components and make them hard to move. Simply adding more grease to them will not yield smooth moving components.

Clean the components below with mineral spirits or other oil/grease solvent cleaner and shop rags.

Outfeed Table Leadscrew

Oil Type ..... SB1365 or ISO 68 Equivalent
Oil Amount..... Thin Coat
Frequency..... As Needed

Lubricate the outfeed table leadscrew with light machine oil as needed (see **Figure 45**). Wipe off excess oil and sawdust with a cloth.

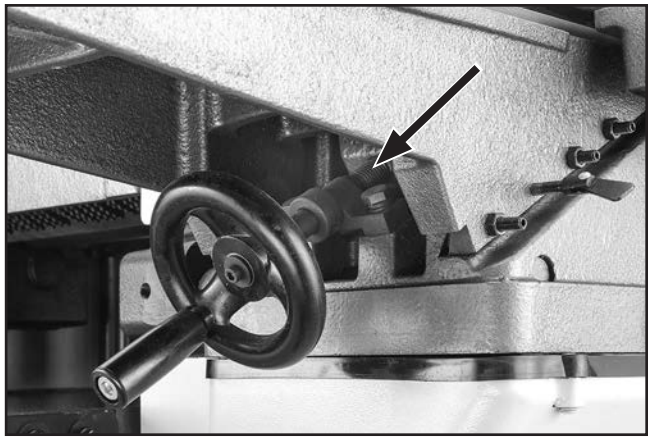


Figure 45. Leadscrew lubrication location.

Planer Table Column Leadscrews

Grease Type..... NLG#2 or Equivalent
Frequency..... Every 40 Hours of Operation

To lubricate left side column leadscrews, remove cover panel and coat leadscrews via access channels as needed (see **Figure 46**).

To lubricate right side column leadscrews (see **Figure 46**), follow steps in **Replacing/Tensioning Belts** on **Page 43** to access columns. Thoroughly coat leadscrews with grease, and raise/lower table fully to distribute grease evenly.

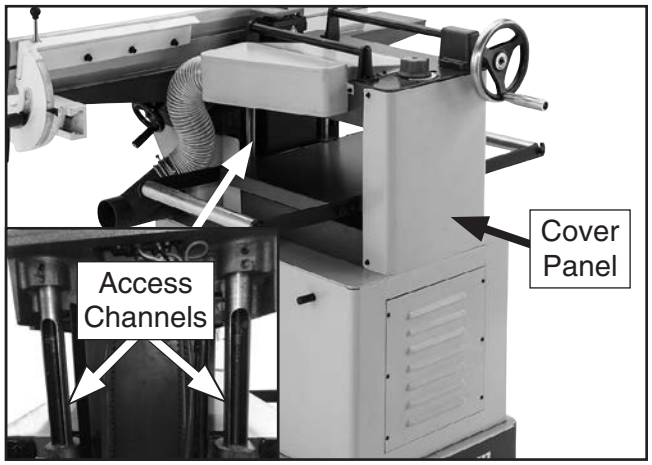


Figure 46. Column lubrication locations.

Table Ways

Oil Type ..... SB1365 or ISO 68 Equivalent
Oil Amount..... 1–2 Drops
Lubrication Frequency..... As Needed

Lower infeed and outfeed tables to access ways. Place a couple of drops of oil at top of each way as needed, and move tables up and down to distribute oil (see **Figure 47**). Wipe off excess oil.

Figure 47. Locations for lubricating table ways.

Fence

Oil Type ..... SB1365 or ISO 68 Equivalent
Oil Amount..... 1–2 Drops
Lubrication Frequency..... As Needed

Place one or two drops of light machine oil on fence pivot points (see **Figure 48**) as needed.

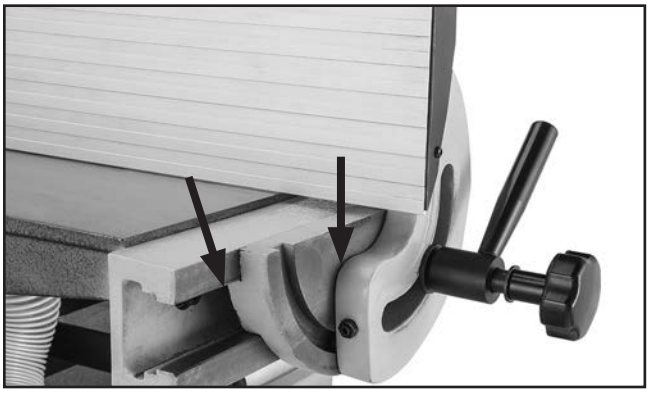


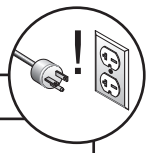
Figure 48. Fence lubrication locations.

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.*

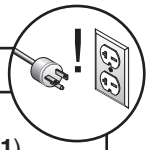
Troubleshooting

Motor & Electrical



Symptom	Possible Cause	Possible Solution
Machine does not start or a breaker trips immediately after startup.	1. Switch disabling pin installed. 2. Incorrect power supply voltage/circuit size. 3. Power supply circuit breaker tripped/fuse blown. 4. Motor wires broken, disconnected, corroded, or not connected correctly. 5. START/STOP switch at fault. 6. Start capacitor at fault. 7. Centrifugal switch at fault. 8. Contact plate at fault. 9. Motor at fault.	1. Remove switch disabling pin. 2. Ensure correct power supply voltage/circuit size. 3. Ensure circuit is sized correctly and free of shorts. Reset circuit breaker or replace fuse. 4. Correct motor wiring connections (**Page 57**). 5. Test/replace switch. 6. Test/replace capacitor. 7. Adjust/replace centrifugal switch if available. 8. Test/replace contact plate. 9. Test/repair/replace.
Machine stalls or is underpowered.	1. Excessive cutting depth. 2. Excessive feed rate. 3. Workpiece material not suitable. 4. Dull knives. 5. Belts worn, loose, or slipping; oil/grease on belt. 6. Pulley loose or not properly aligned. 7. Dust collection problem, causing internal components to clog up with shavings. 8. Motor overheated. 9. Motor wires connected incorrectly.	1. Reduce cutting depth (**Page 31**). 2. Reduce feed rate. 3. Ensure workpiece is suitable for jointing (**Page 26**). 4. Sharpen/replace knives (**Page 47**). 5. Tension/replace belt (**Page 43**); clean belt; ensure pulleys are aligned (**Page 43**). 6. Re-align pulleys (**Page 43**); ensure shaft key is present and tighten pulley set screw(s). 7. Clear blockages; move machine closer to dust collector; upgrade dust collector. 8. Clean motor and let cool. Reduce depth of cut. 9. Correct motor wiring connections (**Page 57**).
Machine has vibration or noisy operation.	1. Belt worn, loose, or slapping cover. 2. Pulley loose or not properly aligned with other pulley. 3. Motor fan rubbing on fan cover. 4. Foot-pedal caster engaged. 5. Motor or other component loose. 6. Knives improperly set or loose. 7. Gears improperly set in gearbox. 8. Cutterhead bearings at fault. 9. Motor bearings at fault.	1. Tension/replace belt (**Page 43**). 2. Ensure pulleys are properly aligned and tightened (w/shaft key present). 3. Fix/replace fan cover; replace loose/damaged fan. 4. Release foot-pedal caster to stabilize machine. 5. Replace damaged bolts/nuts; retighten loose bolts/nuts. Use thread-locking fluid if condition repeats. 6. Set knife alignment/height correctly and secure firmly. 7. Ensure all gears are meshed properly (not too tight or too loose). 8. Replace bearing(s)/ensure shaft key is present and pulley set screw(s) are tightened. 9. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.

Jointer Operations



Symptom	Possible Cause	Possible Solution
Table(s) difficult to adjust.	1. Table lock(s) engaged/partially engaged. 2. Infeed table stop blocking upward movement.	1. Completely loosen table lock(s). 2. Loosen/reset infeed table stop bolt (**Page 31**).
Excessive snipe (gouge in end of board that is uneven with rest of cut).	1. Outfeed table set too low, or knives set too high. 2. Operator pushing down on trailing end of workpiece as it leaves cutterhead.	1. Align outfeed table with cutterhead knife at top dead center (**Page 49**); adjust height of knives evenly with outfeed table (**Page 47**). 2. Reduce/eliminate downward pressure on trailing end of workpiece as it leaves cutterhead.
Workpiece stops in middle of cut.	1. Outfeed table set too high.	1. Align outfeed table with cutterhead knife at top dead center (**Page 49**).
Workpiece chipping, tear-out, or overall rough cuts.	1. Not feeding workpiece to cut "with the grain." 2. Dull knives. 3. Workpiece not suitable for jointing. 4. Feeding workpiece too fast. 5. Excessive cut depth. 6. Lack of proper dust collection or clogged dust port.	1. Turn the workpiece 180° before feeding again. 2. Sharpen/replace knives (**Page 47**). 3. Ensure workpiece is suitable for jointing (**Page 26**). 4. Reduce feed rate. 5. Reduce cut depth (**Page 31**). 6. Clear blockages, ensure dust collector is operating efficiently; upgrade dust collector.
Fuzzy grain.	1. Wood has high moisture content. 2. Dull knives.	1. Ensure wood moisture content is less than 20%. Allow to dry if necessary (**Page 26**). 2. Sharpen/replace knives (**Page 47**).
Long lines or ridges that run along length of workpiece.	1. Nicked or chipped knives.	1. Replace knives (**Page 47**).
Uneven cutter marks, wavy surface, or chatter marks across face of workpiece.	1. Feeding workpiece too fast. 2. Knives not properly adjusted.	1. Reduce feed rate. 2. Properly adjust knives (**Page 47**).
Glossy surface; scorching or burn marks on workpiece.	1. Dull knives. 2. Feed rate too slow.	1. Sharpen/replace knives (**Page 47**). 2. Increase feed rate.
Workpiece is concave or convex along its length after jointing.	1. Workpiece not held with even pressure against outfeed table during cut. 2. Workpiece too uneven at start of operation. 3. Outfeed table not parallel with infeed table.	1. Apply even downward pressure against workpiece throughout entire travel along outfeed side during cut. 2. Take partial cuts to remove extreme high spots before doing a full pass. 3. Check/Adjust table parallelism (**Page 53**).

Planer Operations

Symptom	Possible Cause	Possible Solution
Excessive snipe (gouge in end of board that is uneven with rest of cut). Note: A small amount of snipe is inevitable with all types of planers. The key is minimizing it as much as possible.	1. Some snipe is inevitable. 2. Outfeed extension slopes down or is not level with main table. 3. Workpiece is not supported properly as it leaves planer. 4. Feed rollers and roller spring clogged with material.	1. Plane lumber longer than your intended workpiece length, then cut off excess after planing complete. 2. Adjust outfeed extension wing screws until wing is level with main table. 3. Hold workpiece up slightly as it leaves outfeed end of planer. 4. Clean feed rollers and roller springs (**Page 55**).
Workpiece stops/ slows in middle of cut.	1. Taking too heavy of a cut. 2. Pitch and glue build up on feed rollers.	1. Take a lighter cut. 2. Clean feed rollers with a pitch/resin dissolving solvent.
Chipping (consistent pattern).	1. Knots or conflicting grain direction in wood. 2. Taking too deep of a cut. 3. Feeding workpiece too fast. 4. Mis-adjusted chipbreaker. 5. Nicked or chipped knife.	1. Inspect workpiece for knots and grain direction; only use clean stock, and cut WITH the grain. 2. Reduce depth of cut, especially when planing hard woods. 3. Slow down feed rate. 4. Adjust both sides of chipbreaker to correct height. 5. Replace affected knife (**Page 45**) or have it sharpened.
Chipping/indentation in workpiece surface (inconsistent pattern).	1. Chips aren't being properly expelled from cutterhead.	1. Use a proper dust collection system.
Fuzzy grain.	1. Wood may have high moisture content. 2. Dull knives.	1. Verify moisture content is below 20%. Allow to dry if moisture is too high. 2. Replace knives (**Page 45**) or have them professionally sharpened.
Long lines or ridges that run along length of board.	1. Nicked or chipped knife.	1. Replace knives (**Page 45**) or have them professionally sharpened.
Uneven cutting` marks, wavy surface, or chatter marks across face of board.	1. Feeding workpiece too fast. 2. Knives not installed evenly. 3. Feed rollers set unevenly. 4. Worn cutterhead bearings.	1. Slow down feed rate. 2. Adjust knives with knife gauge (**Page 45**); remove knives, properly clean mounting channel, and re-install (**Page 45**). 3. Clean feed roller thoroughly; clean feed roller springs (**Page 55**). 4. Replace cutterhead bearings.
Glossy surface.	1. Knives are dull. 2. Feeding workpiece too slow. 3. Cutting depth too shallow.	1. Replace knives (**Page 45**) or have them professionally sharpened. 2. Increase feed rate. 3. Increase depth of cut.

Replacing/ Tensioning Belts

To ensure optimum power transmission from the motor to the cutterhead, the belts must be in good condition (free from cracks, fraying, or wear) and properly tensioned. After the first 16 hours of belt use, retension the belts, as they will stretch and seat during this time.

Items Needed	Qty
Additional Person	1
Hex Wrench 3mm	1
Hex Wrench 4mm	1
Hex Wrench 5mm	1
Hex Wrench 6mm	1
Open-Ended Wrench 14mm	1
Phillips Screwdriver #2	1
Flat Head Screwdriver	1

Tensioning Belts

1. DISCONNECT MACHINE FROM POWER!

2. Remove access panel from cabinet on jointer side.

3. Turn belt tension hex nut (see **Figure 49**) clockwise to raise motor mounting plate (loosen belt tension) to remove belts from pulleys.

   Turn belt tension hex nut (see **Figure 49**) counterclockwise to lower motor mounting plate (increasing belt tension) to secure belts for operation.

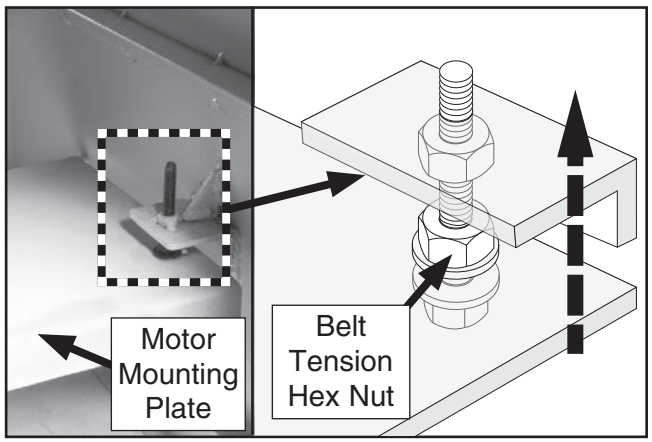


Figure 49. Location of belt tension hex nut for raising/lowering motor plate.

4. Press belt with moderate pressure in center to check belt tension, as shown in **Figure 50**.

   Note: *Belt is correctly tensioned when there is approximately ¼" deflection when pushed in middle, as shown in* **Figure 50**.

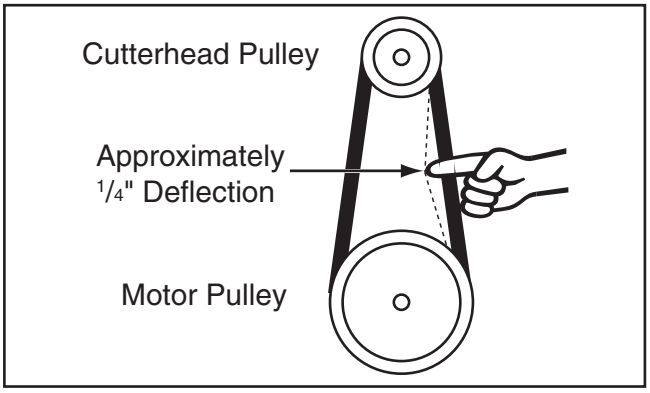


Figure 50. Correct belt deflection when properly tensioned.

5. Replace access panel.

Replacing Belt

1. DISCONNECT MACHINE FROM POWER!

2. Remove cabinet access panel on jointer side of stand.

3. Disconnect accordion dust cover from backside of jointer fence, and remove dust collection hose.

4. Loosen set screws securing jointer bars to planer cabinet (see **Figure 51**).

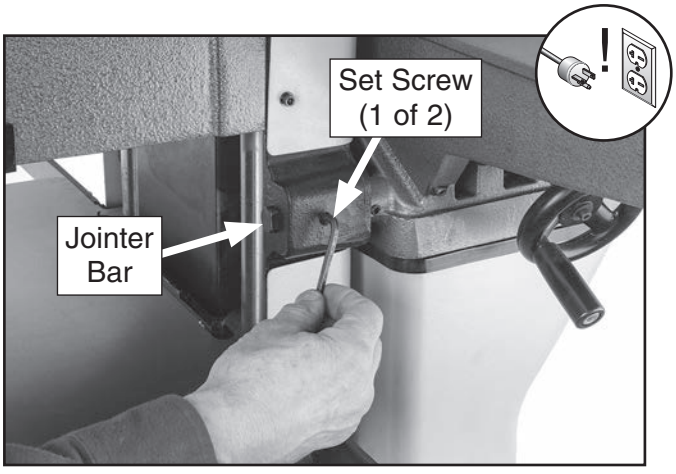


Figure 51. Jointer bar set screw location (1 of 2).

5. With help from an assistant, remove jointer by sliding rods out of rod brackets, and set it aside.

6. Remove (4) cap screws securing jointer support to main cabinet (see **Figure 52**), then remove jointer support.

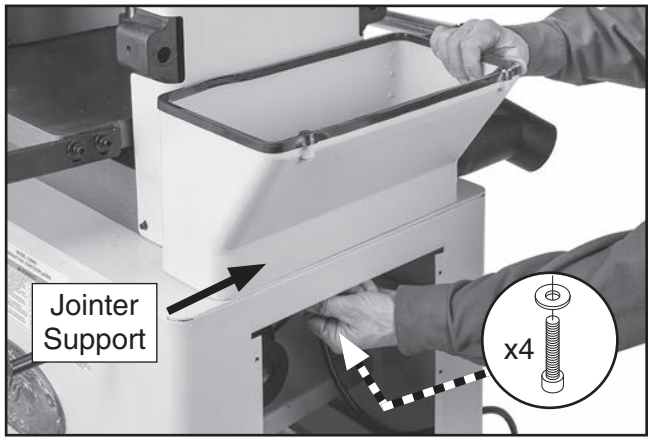


Figure 52. Removing jointer support stand.

7. Remove (6) cap screws securing belt cover plate to planer cabinet (see **Figure 53**), then remove belt cover.

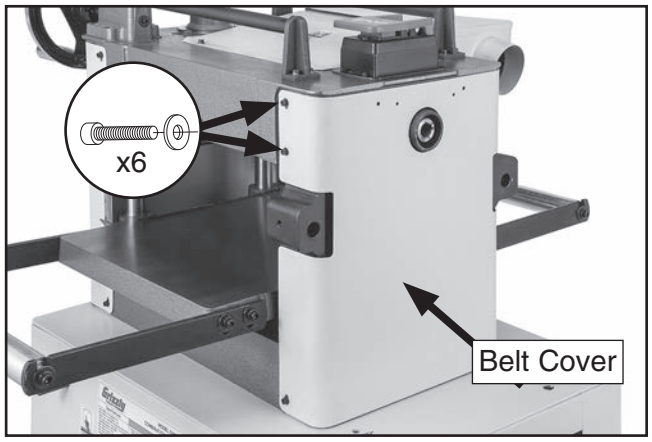


Figure 53. Location of belt cover.

8. Remove (4) cap screws securing support plate to planer cabinet (see **Figure 54**), then remove support plate.

Note: *We strongly recommend lubricating planer table column leadscrews (located beneath support plate pictured in* **Figure 54**) *while completing belt change operation. See* **Lubrication** *on* **Page 39** *for more information.*

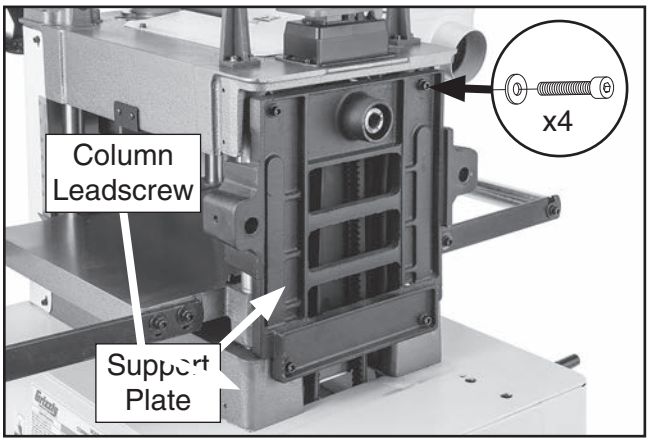


Figure 54. Location of support plate.

9. Turn belt tension hex nut (see **Figure 55**) clockwise to raise motor mounting plate until both belts are loose and can be rolled from pulleys.

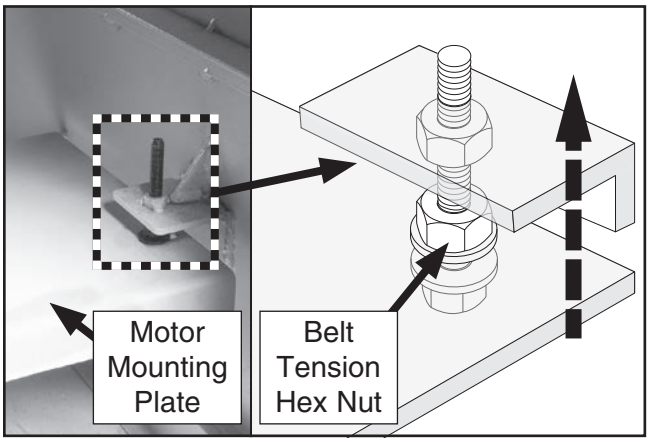


Figure 55. Location of belt tension hex nut for raising/lowering motor plate.

10. Replace belts with a new matched set, and properly re-tension.

Note: *Follow **Steps 3–4** in **Tensioning Belts** procedure to set correct belt tension.*

11. Re-assemble removed components from **Step 2–7** in reverse order.

Note: *When installing jointer onto jointer support, ensure cutterhead shaft key is aligned with keyway in pulley coupler (*see ***Figure 56***).*

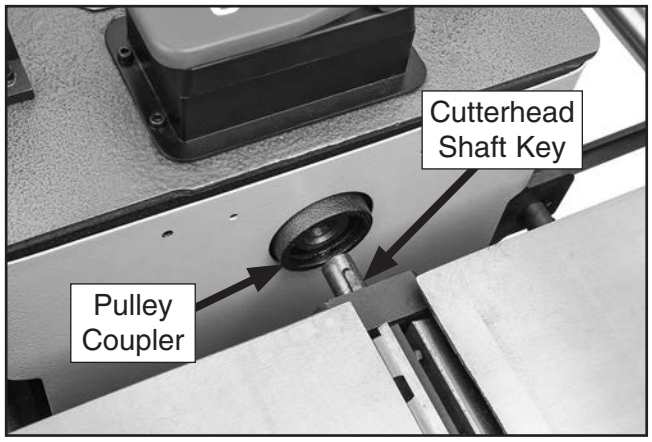
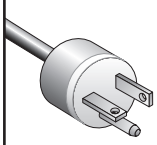


Figure 56. Aligning cutterhead shaft key with pulley coupler.

Adjusting/Replacing Knives (Planer)



⚠WARNING

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

⚠CAUTION

Cutterhead knives are extremely sharp. Accidental contact with knives can result in severe cuts. Take great caution whenever working with or around cutterhead knives. Wear heavy leather gloves to reduce risk of severe cuts.

NOTICE

To maintain accurate and consistent planing results, we do not recommend sharpening knives yourself. Instead, just replace dull knives or have them professionally sharpened.

Setting the height of the knives correctly is crucial to the proper operation of your planer and is very important in keeping the knives sharp. If one knife protrudes higher than the others, it will do the majority of the work, dull much faster, and produce poor cutting results.

Note: *If you need to replace or sharpen a knife, you can remove the knife from the cutterhead during **Step 4** of the following procedure. Thoroughly clean out any debris from the knife slots before replacing the knives.*

*Replacement knives are available through Grizzly (refer to **Page 37** for options).*

Tools Needed	Qty
Phillips Screwdriver #2	1
Open-End Wrench 12, 13mm	1 Ea.
Hex Wrench 3, 4mm	1
Planer Knife-Setting Jig	1
Rubber Mallet	1
Wood Block	1

To adjust height of knives:

1. DISCONNECT MACHINE FROM POWER!

2. Remove rear dust hood and top cover to expose cutterhead.

3. Remove cabinet side cover, then use belts to rotate cutterhead pulley to give you good access to one of the knives.

4. Loosen gib set screws until knife is completely loose, then position knife-setting jig over knife so that knife edge is directly under center pad, as shown in **Figure 57**.

Note: *A wood block and rubber mallet may be needed to loosen knife in cutterhead.*

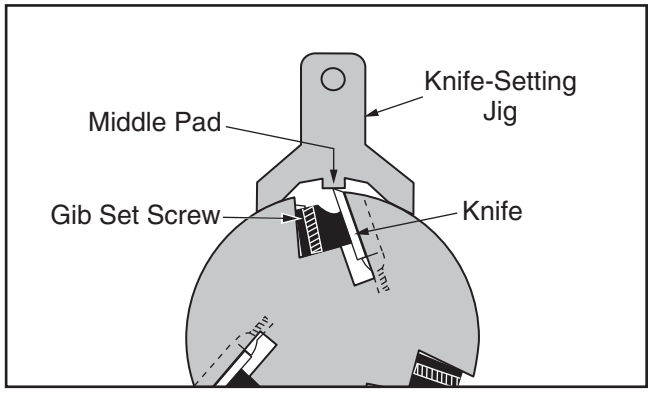


Figure 57. Knife-setting jig correctly positioned.

5. Insert hex wrench into jack screws through access holes in cutterhead (see **Figure 58**). Rotate jack screws to raise or lower knife until it barely touches center pad of knife-setting jig with all legs of jig still firmly on cutterhead, then snug gib set screws enough to hold knife in place.

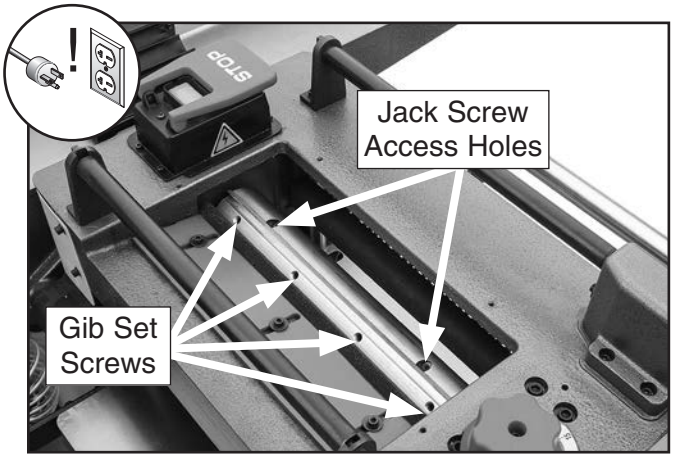


Figure 58. Planer cutterhead jack screw access holes.

6. Slightly tighten gib set screws, starting at middle and working your way to ends by alternating left and right, as illustrated in **Figure 59**. This helps seat each blade evenly.

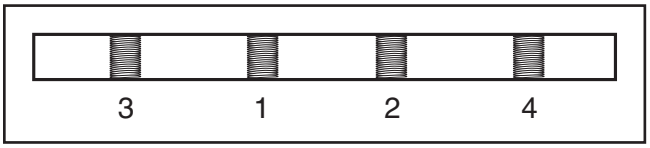


Figure 59. Gib bolt tightening sequence.

7. Repeat **Step 6**, tightening gib set screws a little more.

8. Repeat **Step 6**, tightening gib set screws all the way.

9. Repeat **Steps 4–8** for remaining knives.

10. Re-install belt cover, rear dust hood, and top cover.

Inspecting Knives (Jointer)

The height of the knives can be inspected with a straightedge on the outfeed table (see **Figure 60**) to ensure that they are set even with the outfeed table at TDC (top dead center), or their highest point in the cutterhead rotation.

To check knife height with a straightedge:

1. DISCONNECT MACHINE FROM POWER!
2. Remove cutterhead guard or block it open.
3. Using a straightedge on outfeed table, check height of each knife at positions as shown.

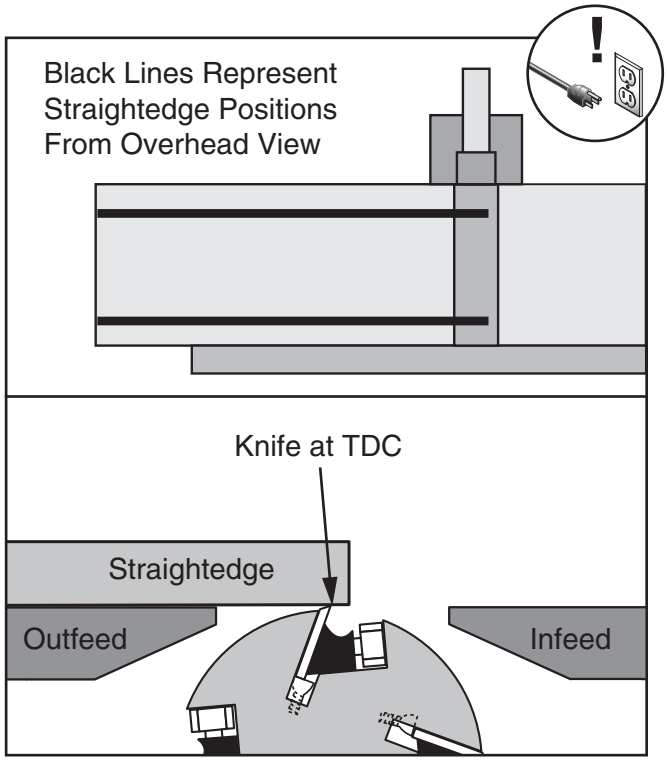


Figure 60. Using a straightedge to inspect knives.

—Knives are set correctly when they just touch bottom of straightedge at TDC in each of straightedge positions.

—If knives do not touch straightedge or they lift up at any position, then those knives need to be adjusted.

Setting/Replacing Knives (Jointer)

Setting the knives correctly is crucial to the proper operation of the jointer and it plays an important role in keeping the knives sharp. If one knife is higher than the others, it will do the majority of the work, and thus, become dull much faster.

The knife jig included with the jointer is designed to set all the knives evenly and at the correct height in the cutterhead.

The cutterhead in this jointer is equipped with jack screws that allow for careful positioning of the knives.

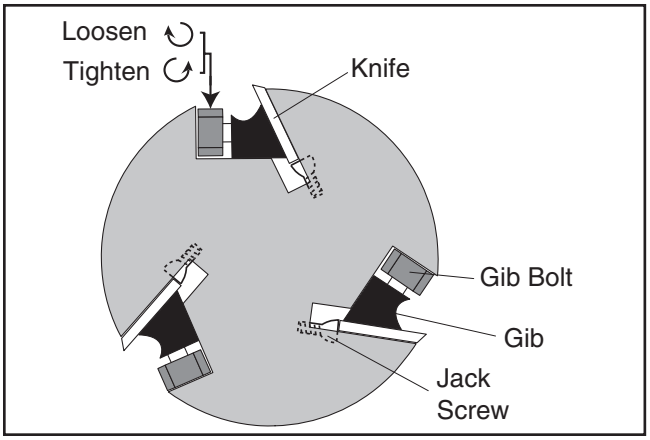


Figure 61. Cutterhead profile diagram.

Checking Knife Settings

Use the knife-setting jig to verify that all knives are positioned evenly in the cutterhead.

Tools Needed	**Qty**
Knife-Setting Jig	1

To check knife settings:

1. DISCONNECT MACHINE FROM POWER!
2. Remove cutterhead guard or block it open.
3. Lower infeed table to ½" scale mark.

4. Place knife jig on cutterhead, with middle pad directly over a knife.

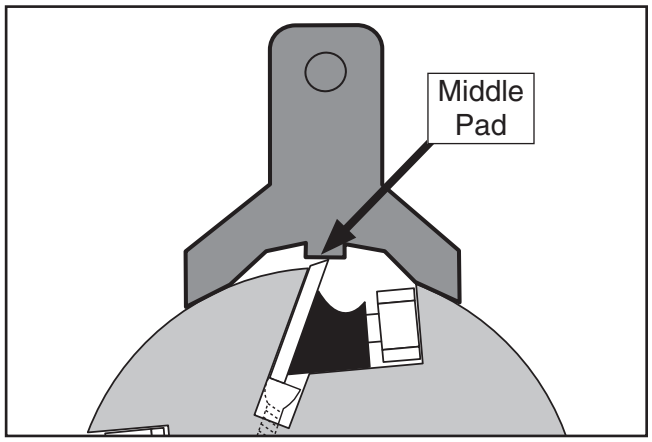


Figure 62. Using knife-setting jig to set knife height.

5. Closely examine how jig touches cutterhead and knife. Knife is set correctly when, on each side of cutterhead, both legs of jig sit firmly on cutterhead body and middle pad of jig just touches top edge of knife.

   — If jig does not sit as described, then that knife must be reset. (Repeat this inspection with other knives before resetting.)

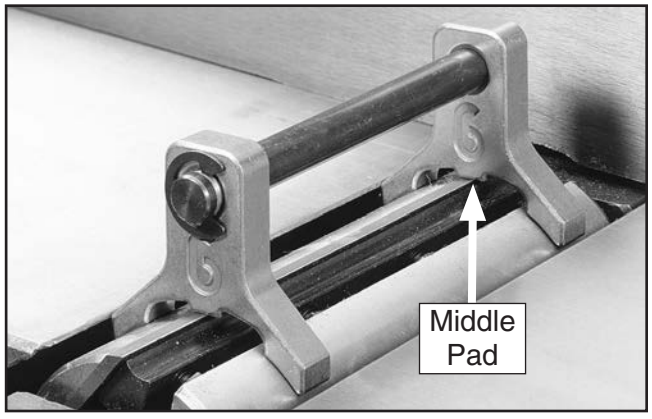


Figure 63. Example of knife-setting jig positioned over cutterhead knife.

Setting/Replacing Knives

Items Needed	Qty
Phillips Screwdriver #2	1
Open-End Wrench 7mm	1 Ea.
Hex Wrench 4mm	1
Jointer Knife-Setting Jig	1
Leather Gloves	1 Pair

Setting/Replacing Knives

1. DISCONNECT MACHINE FROM POWER!

2. Remove cutterhead guard from table and lower infeed table to ½" on depth-of-cut scale. This will provide unrestricted access to cutterhead.

3. Remove cabinet rear access panel to expose cutterhead pulley.

4. Rotate cutterhead pulley to provide good access to cutterhead knives.

5. Loosen cutterhead gib bolts, starting in the middle, and alternating back and forth until all gib bolts are loose, but not falling out.

   The first time you set or replace a knife, remove gib and knife from cutterhead. Clean gib and clean inside cutterhead slot to remove all pitch or sawdust. Coat knife and gib with a metal protectant.

6. Position knife jig over knife. Loosen gib bolts until knife is completely loose.

7. Access jack screws through holes in cutterhead. Using a hex wrench, rotate jack screws to raise or lower knife. When knife is set correctly, it will barely touch middle pad of knife jig or bottom of straightedge in each of the straightedge positions. Snug gib bolts just tight enough to hold knife in place. Repeat with remaining knives.

8. Rotate cutterhead to reveal the first knife you started with. Lightly snug all gib bolts (see **Figure 64**), alternating from one side to the other, and working from the middle to the ends (see **Figure 65**). Repeat with remaining knives.

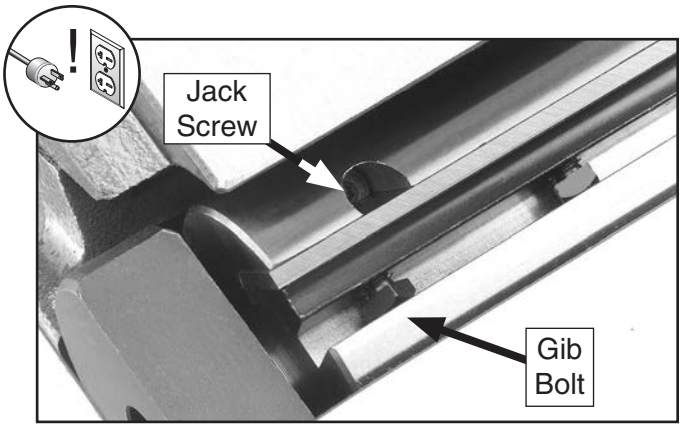


Figure 64. Jack screw access hole.

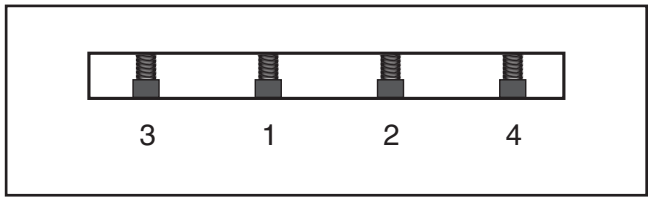


Figure 65. Gib bolt tightening sequence.

9. Tighten each gib bolt in the same alternating manner as you did in the previous step.

10. Make sure outfeed table is set even with the new knives at top dead center.

11. Replace cutterhead guard and cabinet rear access panel.

Setting Outfeed Table Height (Jointer)

The outfeed table height must be even with the top of the cutterhead knives when they are positioned at top dead center. If the outfeed table is set too low, there will be snipe. If the outfeed table is set too high, the workpiece will hit the edge of the outfeed table during operation, increasing the chance of kickback.

Before beginning this procedure, the knives must be properly set in the cutterhead (refer to **Setting/ Replacing Knives (Jointer)** on **Page 47** for detailed instructions).

Tools Needed	**Qty**
Straightedge 24"	1

To set outfeed table height:

1. DISCONNECT MACHINE FROM POWER!

2. Remove cutterhead guard, fence, and cabinet side access panel.

3. Place straightedge on outfeed table so it extends over cutterhead.

4. Use motor pulley to rotate cutterhead until one knife is at top dead center (its highest point during rotation), as illustrated in **Figures 66–67**.

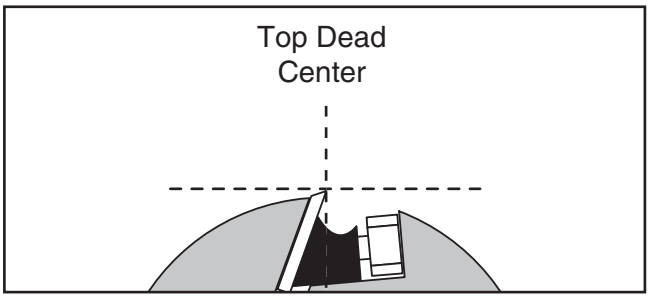


Figure 66. Knife at top dead center.

When outfeed table height is correctly set, knives will barely touch straightedge, as shown in **Figure 67**.

— If your outfeed table is correctly set, no adjustments are necessary. Skip to **Step 8.**

— If knife lifts straightedge off table or is below straightedge, then outfeed table must be adjusted. Proceed to next step.

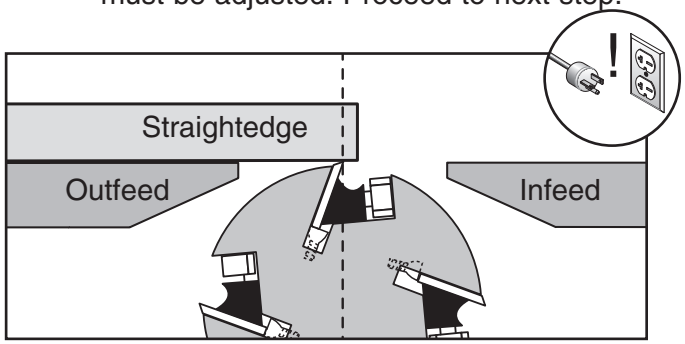


Figure 67. Using straightedge to ensure outfeed table height is set even with knives at TDC.

5. Loosen outfeed table lock (see **Figure 68**).

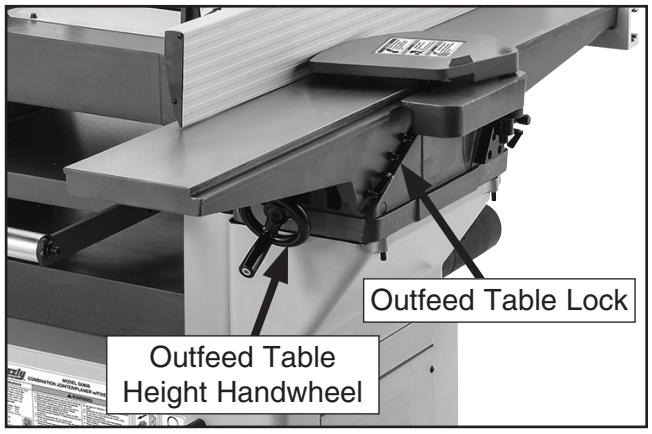


Figure 68. Location of table locks.

6. Use outfeed table height handwheel to set outfeed table so knife barely touches straightedge (see **Figure 67**).

7. Tighten outfeed table lock so outfeed table will not move during operation.

8. Re-install cutterhead guard, fence, and cabinet side access panel.

Calibrating Depth Scale (Jointer)

The depth-of-cut scale can be calibrated or "zeroed" to make sure the cutting depth shown on the scale matches the actual cutting depth (per pass). Before beginning, set outfeed table height as described in on **Page 49**.

Tools Needed	**Qty**
Straightedge	1
Phillips Screwdriver #2	1

To calibrate depth-of-cut scale:

1. DISCONNECT MACHINE FROM POWER!

2. Loosen infeed table lock (see **Figure 69**).

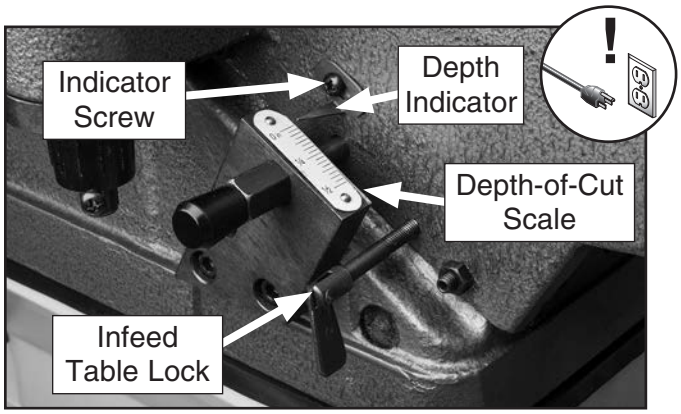


Figure 69. Depth indicator set to "0" on depth-of-cut scale.

3. Place straightedge across infeed and outfeed tables, and rotate infeed table handwheel until infeed table is even with outfeed table (see **Figure 70**).

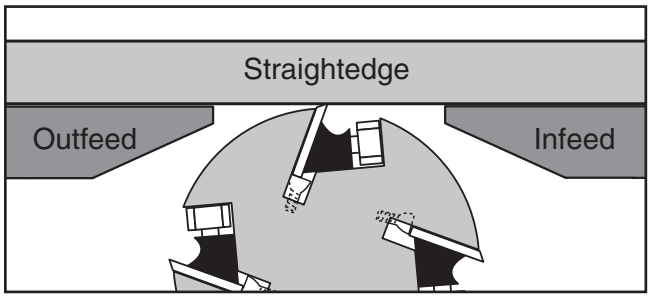


Figure 70. Infeed and outfeed tables aligned.

5. Loosen indicator screw, adjust pointer to “0”, then re-tighten screw to secure setting.

Adjusting Gibs (Jointer)

The function of the table gibs is to eliminate excessive play in the table movement. The gibs also control how easy it will be to move the tables up and down.

Tools Needed	Qty
Open-End Wrench 12mm	1
Hex Wrench 4mm	1

To adjust table gibs:

1. Loosen two infeed table gib nuts on front of jointer base (see **Figure 71**).

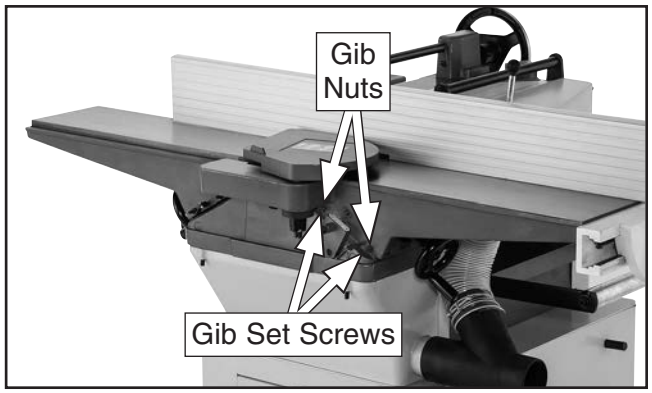


Figure 71. Infeed table gib controls.

2. Oil table ways and outfeed leadscrew (see **Lubrication** on **Page 39**) to ensure table movement is not restricted due to lack of lubrication.

3. Evenly tighten gib set screws a small amount, then check table by moving it up and down. Adjust set screws as needed until friction of table movement is balanced between minimal play and ease of movement.

   Note: *Tighter gibs reduce play but make it harder to adjust tables.*

4. Repeat **Steps 1–3** with outfeed table, then reset outfeed table height, as described in **Setting Jointer Outfeed Table Height** on **Page 49**.

Setting Fence Angle Stops (Jointer)

The fence adjusts from 135° (45° outward) to 45° inward and is locked in place using the fence tilt lock. Adjust fence stops for repeat operations.

Tools Needed	Qty
Combination Square	1
3mm Hex Wrench	1
Open-End Wrench 12mm	1

Setting Fence to 90°

1. Loosen fence angle lock lever (see **Figure 72**).

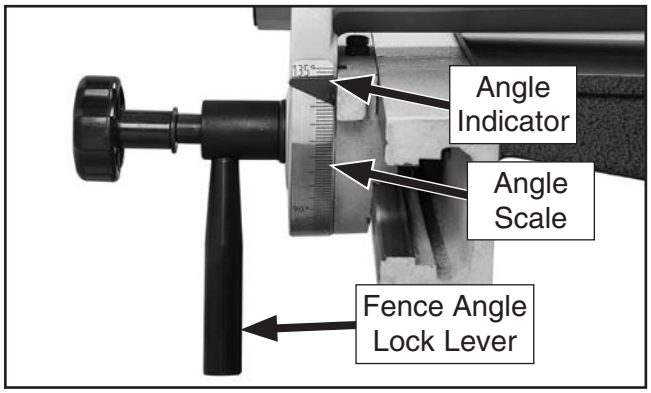


Figure 72. Fence adjustment components.

2. Use fence tilt handle and a 90° square to adjust fence to 90° (see **Figure 73**).

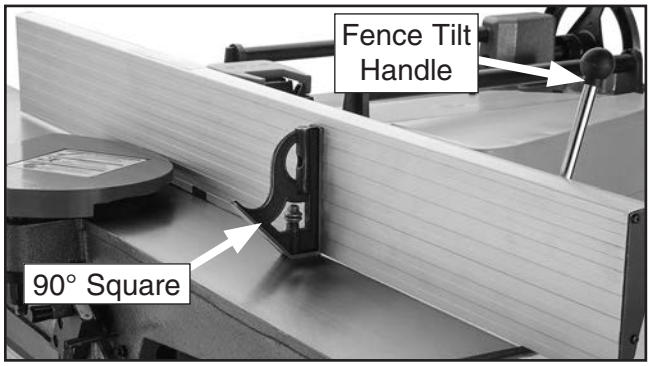


Figure 73. Fence adjusted to 90°.

3. Retighten fence-angle lock lever (see **Step 1**) and check angle indicator (see **Figure 73**) to verify setting.

   Note: If needed, loosen screw securing angle indicator and adjust indicator to align with 90° mark on angle scale, then retighten screw.

Setting 135° Fence Stop

1. Loosen fence-angle lock lever (see **Figure 72**), and use a combination square adjusted to 135˚ to adjust fence to 135˚ (45˚ outward) position, as shown in **Figure 74**.

Figure 74. Fence adjusted to 135˚ (45˚ outward).

2. Check angle scale to verify 135˚ setting (see **Figure 75**).

   — If fence stops at 135˚, no further adjustment is needed. Retighten fence-angle lock lever.

   — If fence *does not* stop exactly at 135˚, stop bolt (see **Figure 75**) requires adjustment. Proceed to **Step 3**.

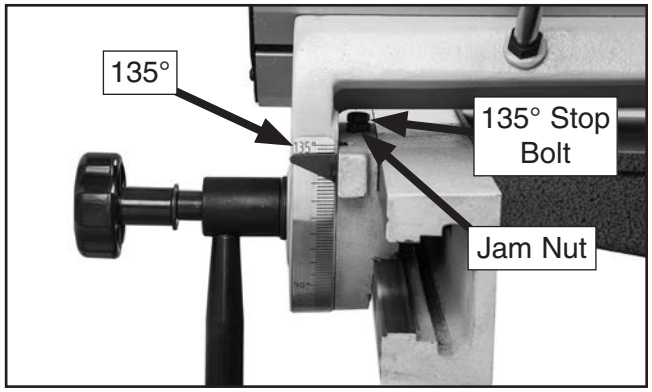


Figure 75. Location of 135˚ stop bolt and jam nut.

3. Adjust 135˚ stop bolt and jam nut until bolt makes contact with back of fence, then re-check fence angle with square.

4. Retighten lock lever loosened in **Step 1** and, if needed, adjust angle indicator by loosening screw aligning indicator with 135˚ mark on angle scale, then re-tightening screw.

Setting 45° Fence Stop

1. Loosen fence-angle lock lever (see **Figure 72**), and use the 135˚ side of a combination square to adjust fence to 135˚ (45˚ inward) position, as shown in **Figure 76**.

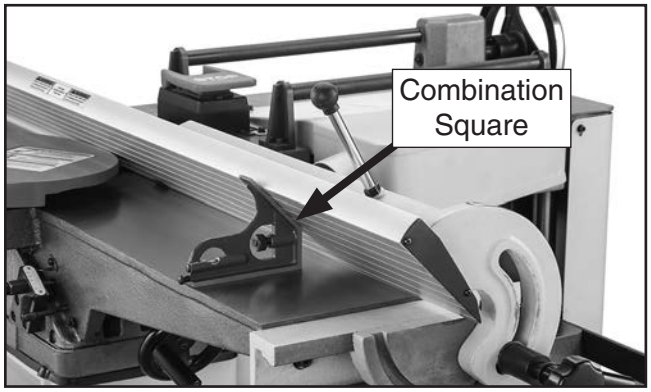


Figure 76. Fence adjusted 45˚ inward.

2. Check angle scale to verify 45˚ setting.

   — If fence stops at 45˚, no further adjustment is needed. Retighten fence-angle lock lever.

   — If fence does not stop exactly at 45˚, stop screw (see **Figure 77**) requires adjustment. Proceed to Step 3.

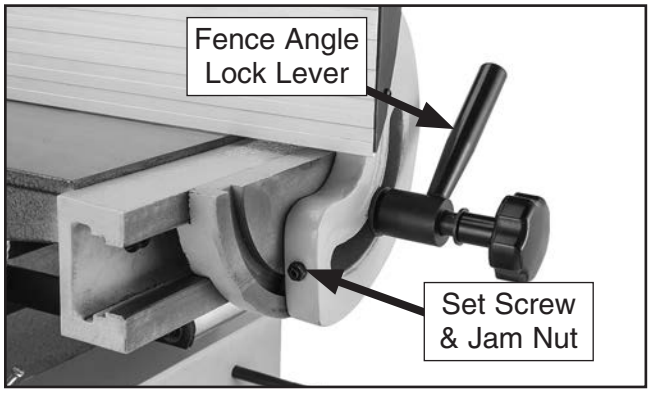


Figure 77. Location of 45˚ stop bolt and jam nut.

3. Adjust 45˚ stop screw and jam nut (see **Figure 77**) until fence face rests evenly on combination square.

4. Re-tighten lock lever loosened in **Step 1** and, if needed, adjust angle indicator by loosening screw to align with 45˚ mark on angle scale, then re-tightening screw.

Adjusting Table Parallelism (Jointer)

The infeed and outfeed tables must be parallel with each other in order to produce a straight, jointed edge. When the tables are not parallel with each other, the jointer will produce workpieces that are cupped (concave) or bowed (convex) along their length.

Table parallelism is factory-set and should not normally need to be adjusted when the machine is new. However, after prolonged use, or if the machine has been jarred during lifting or transportation, it may become necessary to adjust the table parallelism.

Table parallelism is adjusted by inserting shims between the dovetailed ways of the outfeed table to make it parallel with the infeed table. Once this adjustment is made, the outfeed table height should not need to be adjusted again.

Items Needed	**Qty**
Straightedge 4–8'	1
Feeler Gauge Set	1
Metal Shims	As Needed

To check/adjust table parallelism:

1. DISCONNECT MACHINE FROM POWER!

2. Move cutterhead guard out of the way.

3. Set outfeed table height as described in **Setting Outfeed Table Height (Jointer)**.

4. Rotate cutterhead until knife/insert is no longer at TDC, extend straightedge over both tables, raise infeed table until it contacts straightedge (see **Figure 78**), then lock infeed table.

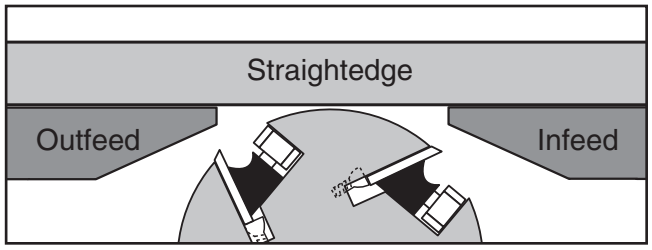


Figure 78. Checking table parallelism.

5. Look down length of straightedge on outfeed side to see if there are any noticeable gaps between straightedge and outfeed table. Do this at both front and rear of table.

— If there are no gaps, and the straightedge makes full contact with both tables at front and rear, the tables are parallel with each other and no adjustments are necessary.

— If there are gaps anywhere between one of the tables and the straightedge, the tables are not parallel to each other and must be adjusted. Proceed to **Step 6**.

6. Insert feeler gauge between table and straightedge where gap is greatest (see **Figure**). The size of the feeler gauge that fits in the gap determines the amount that the table must be shimed

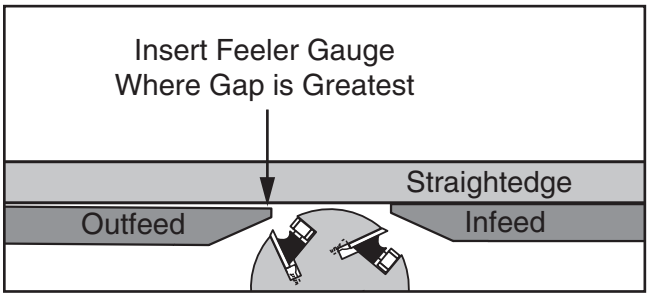


Figure 79. Example of feeler gauge location for checking table parallelism.

7. Loosen outfeed table lock(s). Place shims between dovetailed ways, as shown, until outfeed table is parallel with infeed table at front and rear of tables.

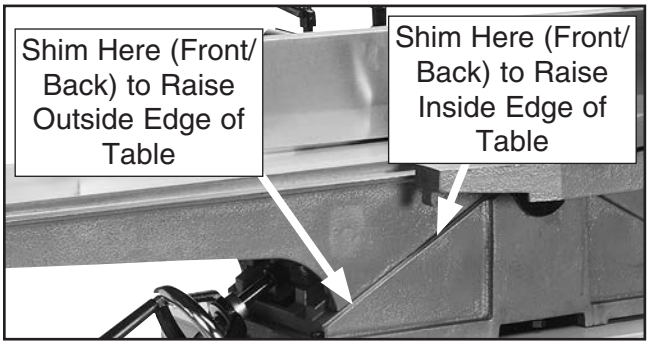


Figure 80. Typical locations to place shims when adjusting table parallelism.

8. Re-check outfeed table height. Refer to **Setting Outfeed Table Height (Jointer)**, and re-adjust if necessary.

Adjusting Chip Deflector (Planer)

Removal of chips ensures the workpiece moves through the planer evenly and at the correct distance from the cutterhead knives.

Note: *The chip breaker is permanently mounted to the dust hood and requires no adjustment.*

It is essential that the chip deflector (see **Figure 81**) is set at the correct distance from the cutterhead knives to ensure adequate collection of dust and chips. When properly distanced from the cutterhead, the chip deflector directs the chips into the dust hood and keeps them from falling onto the outfeed roller and being pressed into the workpiece.

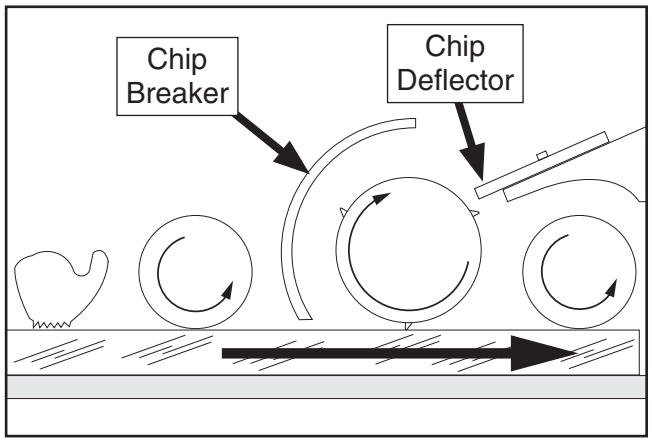


Figure 81. Planer internal component locations (illustration is not to scale).

Adjusting Chip Deflector Gap

Chip Deflector Gap Setting ..... ¼"

Tools Needed	Qty
Hex Wrench 4mm	1
Hex Wrench 5mm	1
Fine Ruler or Calipers	1
Leather Gloves	1 Pair

To adjust chip deflector gap:

1. DISCONNECT MACHINE FROM POWER!

2. Remove dust hood and top cover.

3. Rotate cutterhead until a knife reaches closest distance to chip deflector (see **Figure 82**), then measure distance between knife and chip deflector.

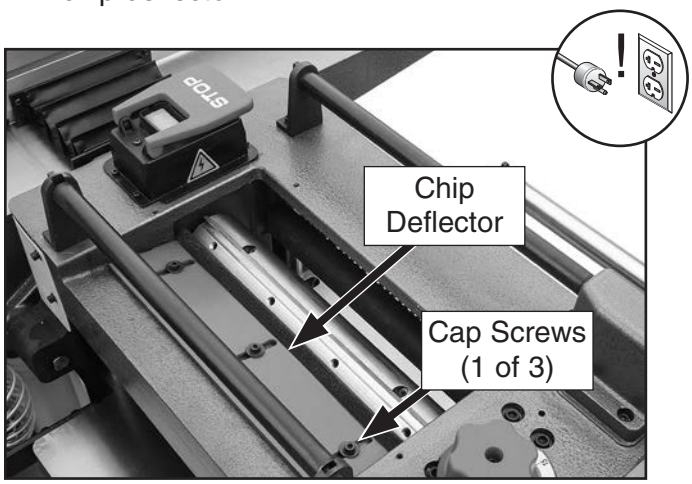


Figure 82. Location of chip deflector.

4. If distance is *not* equal to ¼", then loosen (3) cap screws securing chip deflector and adjust gap to ¼".

5. Retighten screws, then replace top cover and dust hood.

Cleaning Feed Rollers (Planer)

The feed rollers (see **Figure 83**) rotate in spring-loaded bushing blocks, allowing them to raise with an uneven workpiece surface. Ensure no chips or sawdust build up is present between the bracket and bushing block (see **Figure 83**). Material build up reduces amount of roller vertical travel.

Items Needed	**Qty**
4" Tall Block of Wood	1
Air Compressor w/Nozzle	1

To clean feed rollers blocks:

1. DISCONNECT MACHINE FROM POWER!
2. Place a 4" tall block of wood between one feed roller and planer table. Ensure block of wood is *not* under cutterhead.
3. Lower cutterhead assembly just enough so roller is pushed up against spring and pressure is off of two brackets.
4. Blow out any trapped material from between roller assembly and bracket.

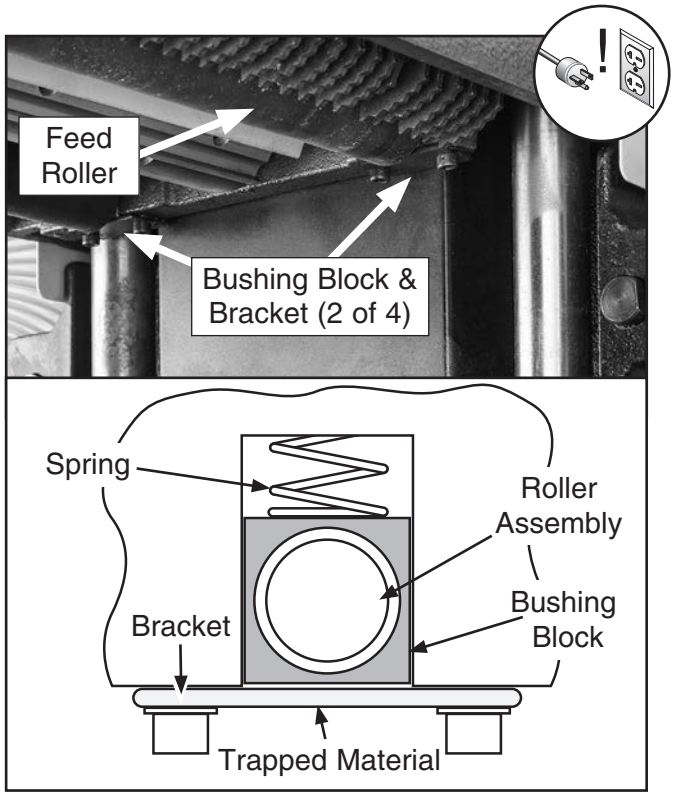


Figure 83. Remove sawdust from feed rollers.

Anti-Kickback Fingers

The anti-kickback fingers are an important safety feature of your planer. The fingers hang from a rod suspended across the head casting and in front of the infeed roller, as shown in **Figure 84**. This design allows the workpiece to easily enter the planer but reduces the risk of kickback by digging into the workpiece if it moves backward.

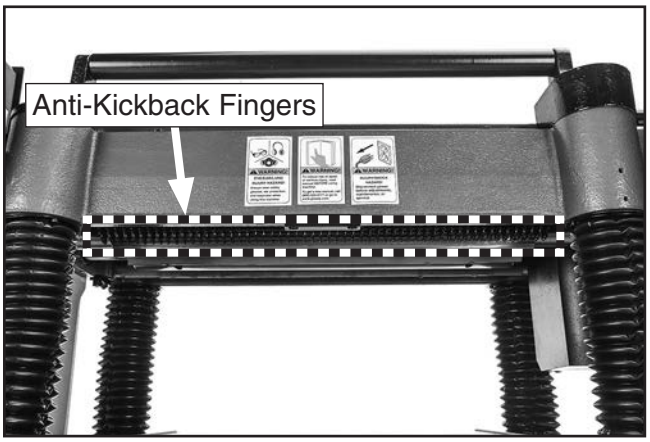


Figure 84. Anti-kickback fingers.

Check the anti-kickback fingers regularly to ensure they swing freely and easily. If the fingers do not swing freely and easily, first clean them with a wood resin solvent, then inspect them for damage. If any of the fingers are damaged, the device must be replaced before using the machine.

Do not apply oil or other lubricants to the anti-kickback fingers that will attract dust and restrict free movement of the fingers.

⚠WARNING

Proper operation of anti-kickback fingers is critical for safe operation of this planer. DO NOT operate planer if anti-kickback fingers are not operating correctly. Failure to heed this warning could result in serious personal injury.

SECTION 8: WIRING

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

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

⚠WARNING
Wiring Safety Instructions

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

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

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

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

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

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

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

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

NOTICE

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

COLOR KEY

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

Wiring Diagram

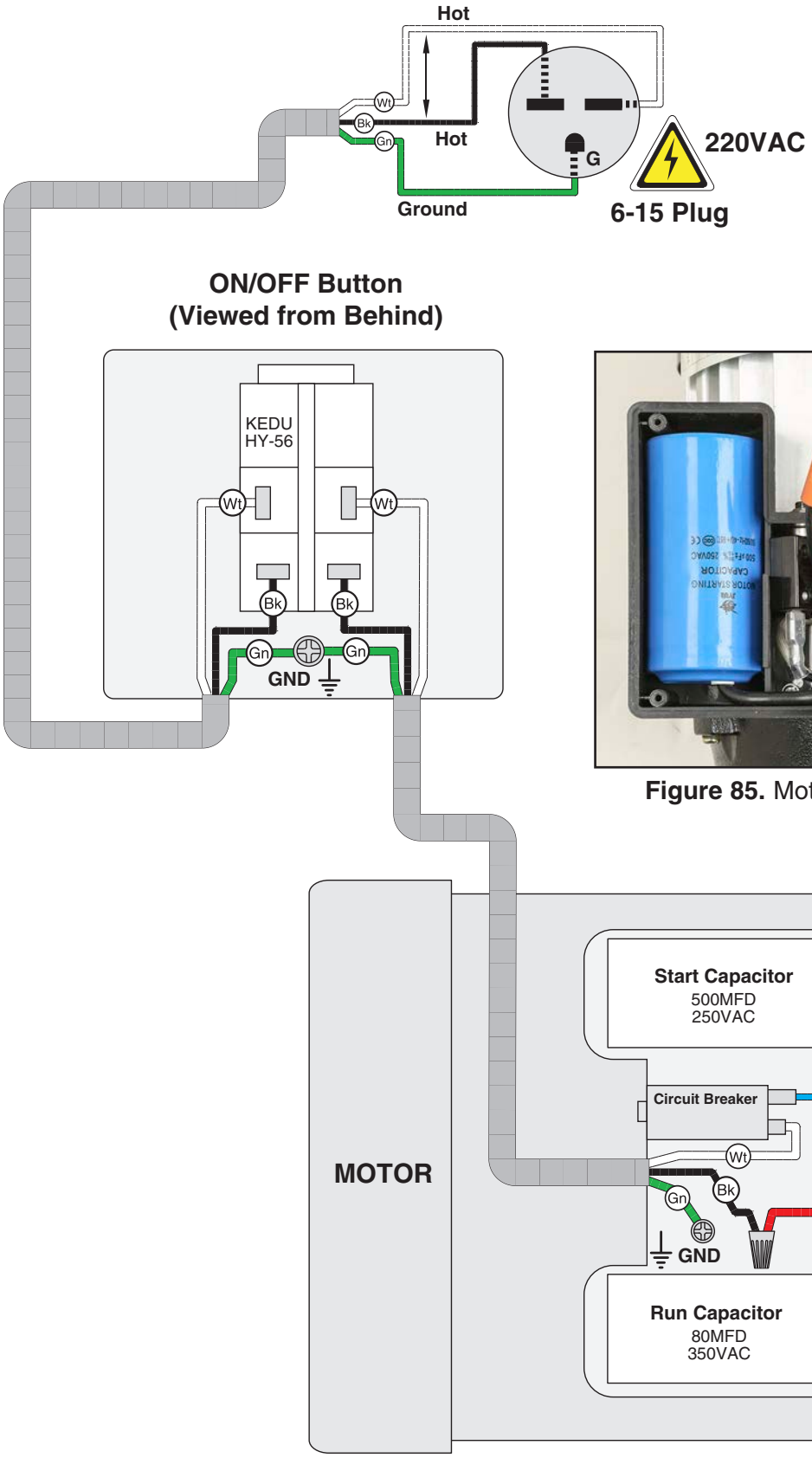
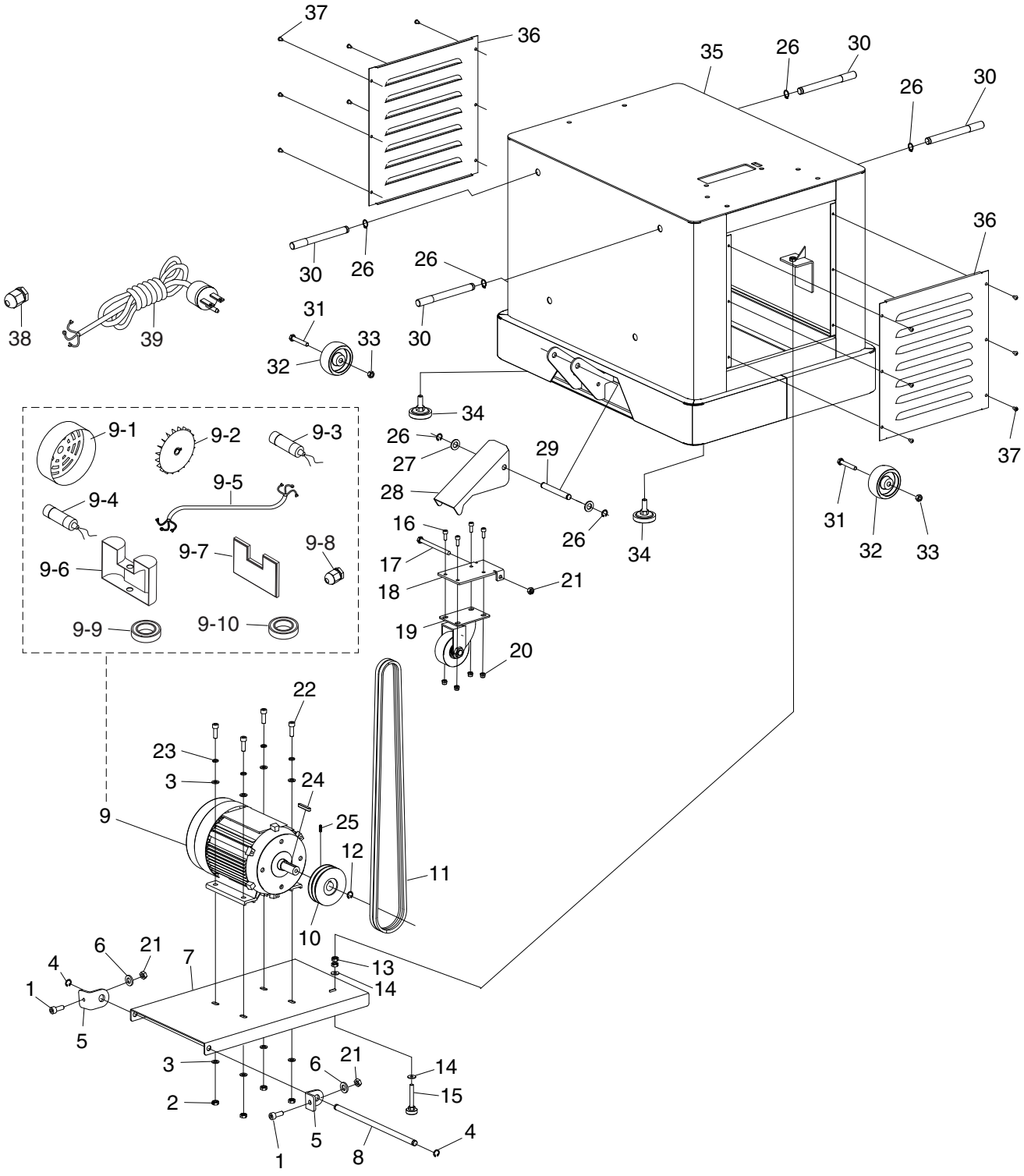


Figure 85. Motor junction box wiring.

SECTION 9: PARTS

Please Note: *We do our best to stock replacement parts whenever possible, but we cannot guarantee that all parts shown here are available for purchase. Call* ***(800) 523-4777*** *or visit our online parts store at* ***www.grizzly.com*** *to check for availability.*

Cabinet

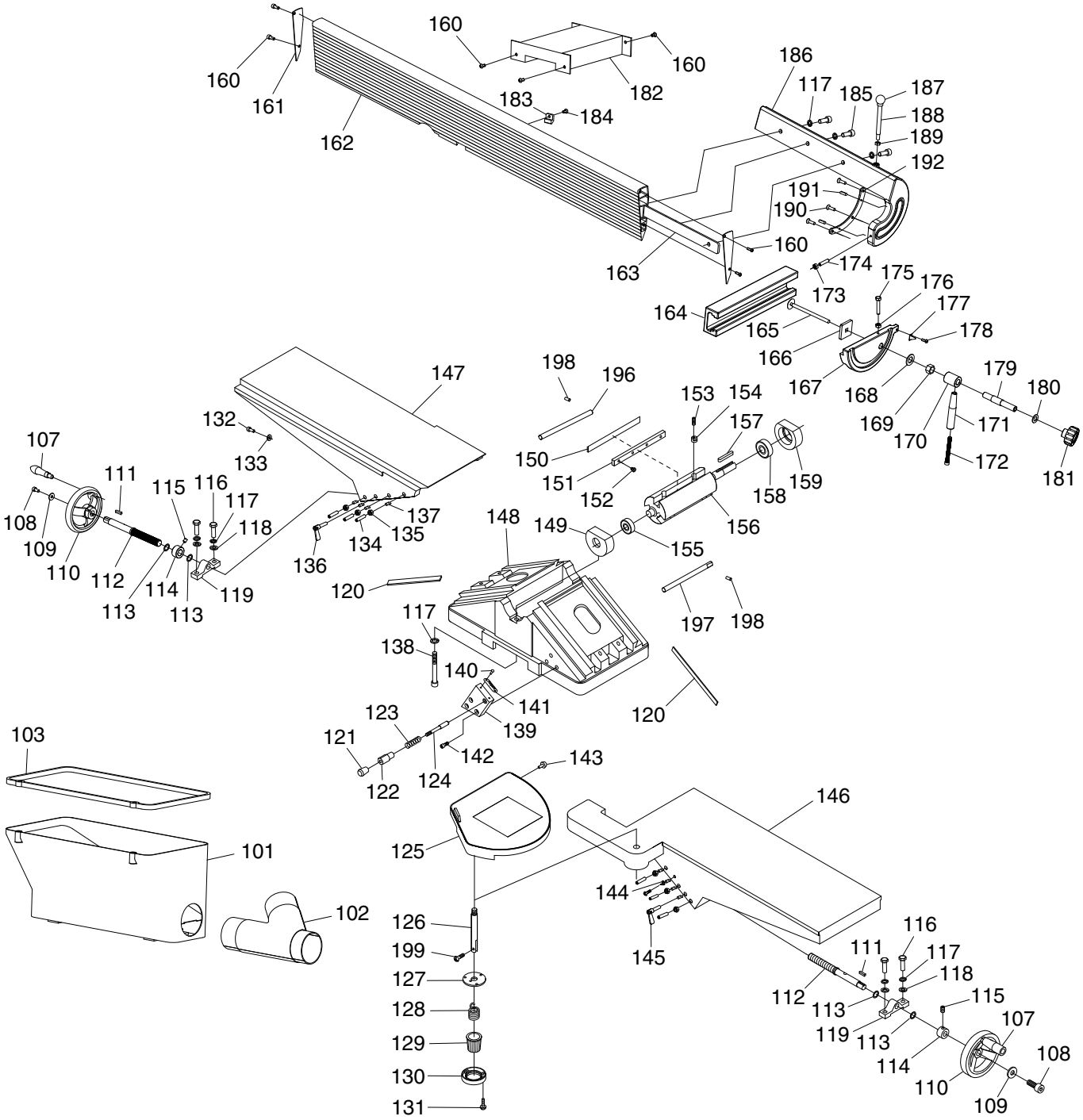


Cabinet Parts

REF	PART #	DESCRIPTION
1	P0809001	CAP SCREW M8-1.25 X 20
2	P0809002	HEX NUT M8-1.25
3	P0809003	FLAT WASHER 8MM
4	P0809004	EXT RETAINING RING 15MM
5	P0809005	MOTOR PLATE PIVOT BRACKET
6	P0809006	FLAT WASHER 8 X 20 X 2
7	P0809007	MOTOR MOUNTING PLATE
8	P0809008	PIVOT ROD 12 X 283MM
9	P0809009	MOTOR 2HP 240V 1-PH
9-1	P0809009-1	MOTOR FAN COVER
9-2	P0809009-2	MOTOR FAN
9-3	P0809009-3	S CAPACITOR 500M 250V 2" X 4"
9-4	P0809009-4	R CAPACITOR 80M 350V 2" X 4"
9-5	P0809009-5	MOTOR POWER CORD 14G 3W 36"
9-6	P0809009-6	CAPACITOR CASE
9-7	P0809009-7	CAPACITOR COVER
9-8	P0809009-8	STRAIN RELIEF TYPE-3 M20-1.5
9-9	P0809009-9	BALL BEARING 6205-2RS (FRONT)
9-10	P0809009-10	BALL BEARING 6205-2RS (REAR)
10	P0809010	MOTOR PULLEY
11	P0809011	V-BELT GATES TRUFLEX 3L360
12	P0809012	EXT RETAINING RING 20MM
13	P0809013	HEX NUT M8-1.25
14	P0809014	FLAT WASHER 8MM
15	P0809015	HEX BOLT M8-1.25 X 70

REF	PART #	DESCRIPTION
16	P0809016	CAP SCREW M6-1 X 15
17	P0809017	HEX BOLT M8-1.25 X 100
18	P0809018	LIFTING PLATE
19	P0809019	CASTER ASSY 37W X 75D
20	P0809020	HEX NUT M6-1
21	P0809021	HEX NUT M8-1.25
22	P0809022	HEX BOLT M8-1.25 X 25
23	P0809023	LOCK WASHER 8MM
24	P0809024	KEY 6 X 6 X 40
25	P0809025	SET SCREW M5-.8 X 4
26	P0809026	EXT RETAINING RING 12MM
27	P0809027	FLAT WASHER 12MM
28	P0809028	PEDAL
29	P0809029	DOWEL PIN 12 X 94
30	P0809030	LIFTING ROD
31	P0809031	HEX BOLT M10-1.5 X 60
32	P0809032	REAR WHEEL 37W X 75D X 10B
33	P0809033	HEX NUT M10-1.5
34	P0809034	ADJUSTABLE FOOT M10-1.5 X 85
35	P0809035	CABINET
36	P0809036	SIDE COVER
37	P0809037	BUTTON HD CAP SCR M5-.8 X 8
38	P0809038	STRAIN RELIEF TYPE-3 M20-1.5
39	P0809039	POWER CORD 14G 3W 72" 6-15P

Jointer Table & Fence

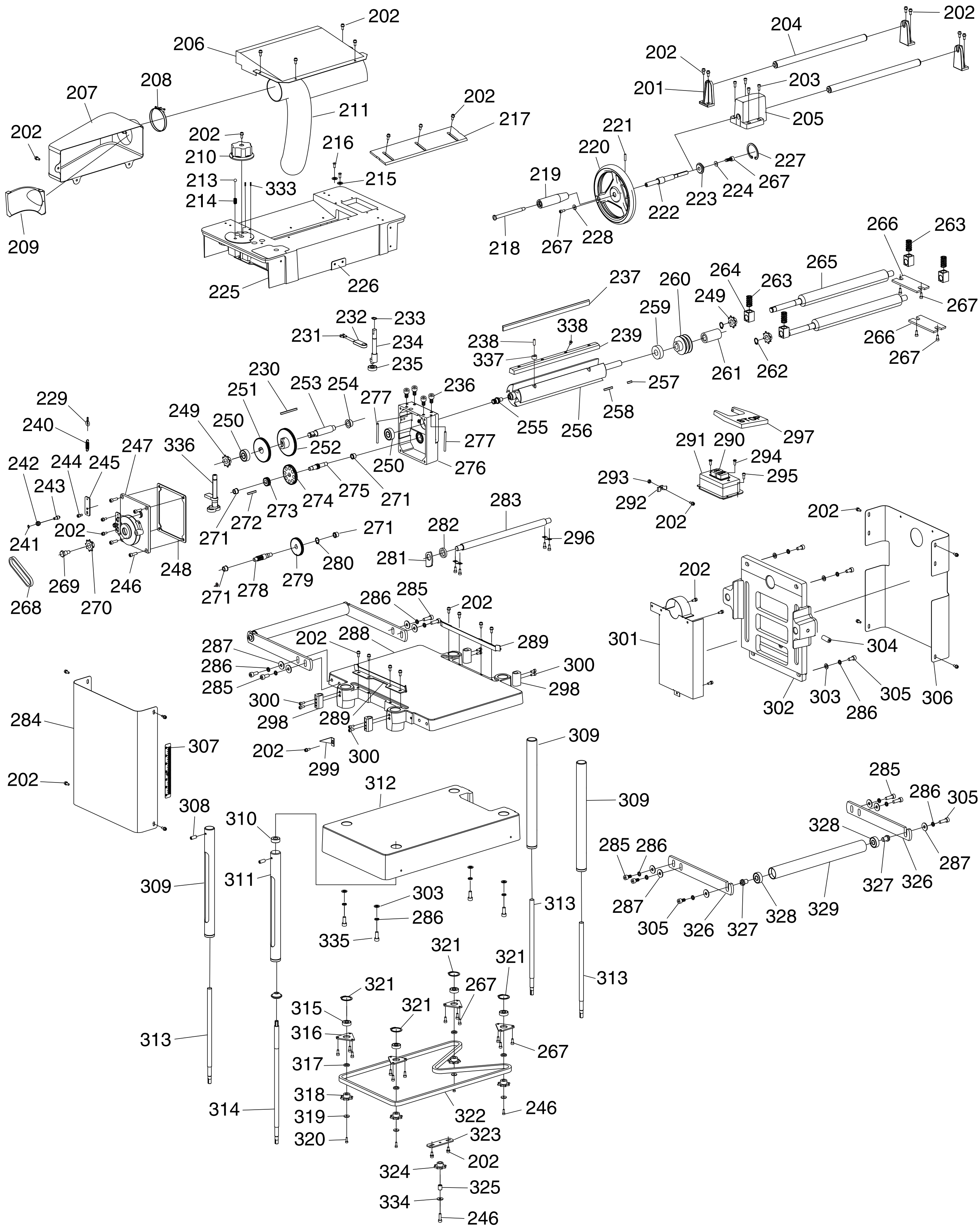


Jointer Table & Fence Parts

REF	PART #	DESCRIPTION
101	P0809101	DUST CHUTE
102	P0809102	Y-CONNECTOR 4" PLASTIC
103	P0809103	GASKET FOR DUST CHUTE
107	P0809107	HANDLE W/OUT SHAFT 21 X 57, 8D
107-1	P0809107-1	SHOULDER SCR M6-1 X 10, 8 X 62
108	P0809108	CAP SCREW M5-.8 X 10
109	P0809109	FLAT WASHER 5 X 16 X 2
110	P0809110	HANDWHEEL TYPE-19 100D X 12B-K X M6-1
111	P0809111	KEY 4 X 4 X 10
112	P0809112	LEADSCREW
113	P0809113	SPACER 13 X 16 X 0.65 ALUM
114	P0809114	FIXED SLEEVE
115	P0809115	SET SCREW M6-1 X 8
116	P0809116	HEX BOLT M8-1.25 X 20
117	P0809117	LOCK WASHER 8MM
118	P0809118	FLAT WASHER 8MM
119	P0809119	LEADSCREW BRACKET
120	P0809120	GIB FOR JOINTER TABLE
121	P0809121	KNOB M5-.8, 16 X 20 TAPERED
122	P0809122	STANDOFF HEX M-F M12-1.5 X 15, 34L
123	P0809123	COMPRESSION SPRING 0.8 X 8 X 26
124	P0809124	LOCK PIN M6-1 X 12 X 67
125	P0809125	BLADE GUARD
126	P0809126	BLADE GUARD SHAFT
127	P0809127	SPRING PLATE
128	P0809128	TORSION SPRING 1.5 X 22 X 32
129	P0809129	SPRING HOUSING
130	P0809130	SPRING HOUSING RETAINER
131	P0809131	PHLP HD SCR M4-.7 X 16
132	P0809132	CAP SCREW M5-.8 X 10
133	P0809133	FLAT WASHER 5 X 16 X 2 CLIPPED
134	P0809134	SET SCREW M6-1 X 25
135	P0809135	HEX NUT M6-1
136	P0809136	FOLDING WING SCREW M6-1 X 40
137	P0809137	ROLL PIN 5 X 7
138	P0809138	CAP SCREW M8-1.25 X 80
139	P0809139	LOCK PIN MOUNTING PLATE
140	P0809140	RIVET 2.5 X 4MM NAMEPLATE
141	P0809141	DEPTH-OF-CUT SCALE
142	P0809142	CAP SCREW M6-1 X 16
143	P0809143	BUSHING 3 X 8.5 X 13 (PLASTIC)
144	P0809144	INFEED TABLE DEPTH INDICATOR
145	P0809145	FOLDING WING SCREW M6-1 X 60
146	P0809146	INFEED TABLE
147	P0809147	OUTFEED TABLE
148	P0809148	JOINTER BASE
149	P0809149	BEARING BLOCK M8-1.25 (FRONT)
150	P0809150	KNIFE 6" X 5/8" X 1/8" HSS

REF	PART #	DESCRIPTION
151	P0809151	GIB FOR JOINTER CUTTERHEAD
152	P0809152	GIB SCREW M6-1 X 7
153	P0809153	SET SCREW M6-1 X 12
154	P0809154	ADJUSTING BLOCK
155	P0809155	BALL BEARING 6202ZZ
156	P0809156	CUTTERHEAD 6" 3-KNIFE
157	P0809157	KEY 5 X 5 X 16 RE
158	P0809158	BALL BEARING 6203ZZ
159	P0809159	BEARING BLOCK M8-1.25 (REAR)
160	P0809160	PHLP HD SCR M5-.8 X 8
161	P0809161	FENCE END COVER
162	P0809162	FENCE
163	P0809163	FENCE FIXED PLATE
164	P0809164	FENCE RAIL
165	P0809165	CARRIAGE BOLT M8-1.25 X 125
166	P0809166	SQUARE SPACER 8MM
167	P0809167	FENCE SLIDING BLOCK
168	P0809168	FLAT WASHER 17 X 30 X 3
169	P0809169	HEX NUT M16-2
170	P0809170	LOCKING HANDLE HEX SLEEVE
171	P0809171	HANDLE 18 X 100, 8D
172	P0809172	CAP SCREW M8-1.25 X 95
173	P0809173	HEX NUT M6-1
174	P0809174	SET SCREW M6-1 X 25
175	P0809175	HEX BOLT M6-1 X 25
176	P0809176	HEX NUT M6-1
177	P0809177	ANGLE POINTER
178	P0809178	PHLP HD SCR M4-.7 X 6
179	P0809179	SHAFT
180	P0809180	FENDER WASHER 8MM
181	P0809181	KNOB 5-LOBE M8-1.25, 49 X 46
182	P0809182	PROTECTIVE COVER
183	P0809183	SUPPORT PLATE
184	P0809184	PHLP HD SCR M4-.7 X 8
185	P0809185	CAP SCREW M8-1.25 X 20
186	P0809186	FENCE BASE
187	P0809187	STUD-UDE M8-1.25 X 110, 10, 16
188	P0809188	KNOB M8-1.25
189	P0809189	HEX NUT M8-1.25
190	P0809190	FLAT HD SCR M5-.8 X 10
191	P0809191	ROLL PIN 3 X 20
192	P0809192	FENCE BASE BUSHING
196	P0809196	SUPPORT ROD A
197	P0809197	SUPPORT ROD B
198	P0809198	SET SCREW M10-1.5 X 10
199	P0809199	PHLP HD SCR M5-.8 X 10
200	P0809200	PHLP HD SCR M5-.8 X 6

Planer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Planer Parts

REF	PART #	DESCRIPTION
201	P0809201	RETURN ROLLER BRACKET
202	P0809202	CAP SCREW M5-.8 X 12
203	P0809203	CAP SCREW M6-1 X 12
204	P0809204	RETURN ROLLER
205	P0809205	ELEVATION HANDWHEEL HOUSING
206	P0809206	HEADSTOCK COVER
207	P0809207	DUST PORT 3"
208	P0809208	HOSE CLAMP 3"
209	P0809209	CURVED PLATE
210	P0809210	SPEED CONTROL KNOB
211	P0809211	DUST HOSE 3" X 16" FLEXIBLE
213	P0809213	STEEL BALL 8MM
214	P0809214	COMPRESSION SPRING 0.8 X 8 X 13
215	P0809215	EXT TOOTH WASHER 5MM
216	P0809216	PHLP HD SCR M5-.8 X 8
217	P0809217	CHIP DEFLECTOR
218	P0809218	SHOULDER SCR M8-1.25 X 16, 9 X 120
219	P0809219	HANDWHEEL HANDLE 26 X 106, 10D ALUM
220	P0809220	HANDWHEEL TYPE-1 183D X 12B X M8-1.25
221	P0809221	ROLL PIN 3 X 20
222	P0809222	HANDWHEEL SHAFT
223	P0809223	TAPERED GEAR 16T
224	P0809224	FENDER WASHER 5MM
225	P0809225	UPPER PLANER FRAME
226	P0809226	DEPTH LIMITER
227	P0809227	INT RETAINING RING 42MM
228	P0809228	FENDER WASHER 5MM
229	P0809229	EYE BOLT M5-.8 X 26
230	P0809230	KEY 5 X 5 X 55
231	P0809231	CAP SCREW M4-.7 X 16
232	P0809232	GUIDE FIXED SEAT
233	P0809233	EXT RETAINING RING 12MM
234	P0809234	SHAFT
235	P0809235	BALL BEARING 6000ZZ
236	P0809236	CAP SCREW M8-1.25 X 12
237	P0809237	KNIFE 13" X 5/8" X 1/8" HSS
238	P0809238	SET SCREW M8-1.25 X 16
239	P0809239	GIB FOR PLANER CUTTERHEAD
240	P0809240	EXTENSION SPRING 1.2 X 9.2 X 37.5
241	P0809241	LOCK WASHER 4MM
242	P0809242	CHAIN TENSION WHEEL
243	P0809243	TENSION WHEEL SHAFT
244	P0809244	SET SCREW M5-.8 X 14
245	P0809245	FIXED PLATE
246	P0809246	CAP SCREW M6-1 X 20
247	P0809247	GEARBOX COVER
248	P0809248	GEARBOX COVER GASKET
249	P0809249	SPROCKET 8T
250	P0809250	BALL BEARING 6202ZZ

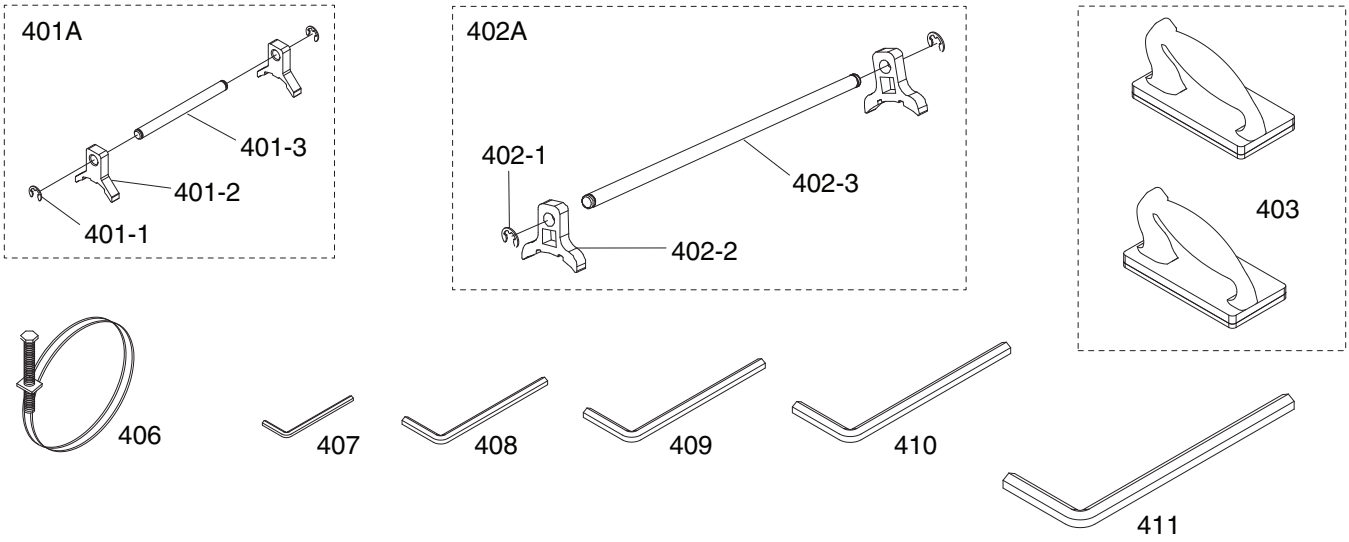
REF	PART #	DESCRIPTION
251	P0809251	GEAR 72T
252	P0809252	GEAR 82T
253	P0809253	GEAR SHAFT
254	P0809254	FLANGED SLEEVE BEARING 14 X 20 X 12
255	P0809255	PINION GEAR 12T
256	P0809256	CUTTERHEAD 13" 3-KNIFE
257	P0809257	KEY 5 X 5 X 16
258	P0809258	KEY 5 X 5 X 32
259	P0809259	BALL BEARING 6203ZZ
260	P0809260	CUTTERHEAD PULLEY
261	P0809261	SHAFT SLEEVE
262	P0809262	EXT RETAINING RING 15MM
263	P0809263	COMPRESSION SPRING 2.2 X 17 X 40
264	P0809264	REAR ROLLER BLOCK
265	P0809265	REAR ROLLER
266	P0809266	COMPRESSION PLATE
267	P0809267	CAP SCREW M5-.8 X 16
268	P0809268	CHAIN #410-37
269	P0809269	CONNECTING SHAFT
270	P0809270	SPROCKET 8T
271	P0809271	FLANGED SLEEVE BEARING 10 X 14 X 11
272	P0809272	KEY 4 X 4 X 15
273	P0809273	GEAR B 23T
274	P0809274	GEAR A 58T
275	P0809275	GEAR SHAFT B 13T
276	P0809276	GEARBOX CASTING
277	P0809277	ROLL PIN 6 X 32
278	P0809278	GEAR SHAFT A
279	P0809279	GEAR 52T
280	P0809280	EXT RETAINING RING 12MM
281	P0809281	ANTI-KICKBACK PAWL
282	P0809282	SLEEVE
283	P0809283	ANTI-KICKBACK PAWL SHAFT
284	P0809284	LEFT COVER
285	P0809285	CAP SCREW M8-1.25 X 25
286	P0809286	LOCK WASHER 8MM
287	P0809287	FLAT WASHER 8 X 17.5 X 3
288	P0809288	PLANER TABLE
289	P0809289	GUIDE PLATE
290	P0809290	ON-OFF SWITCH KEDU HY56
291	P0809291	SWITCH BOX
292	P0809292	CORD CLAMP PLATE (DUAL)
293	P0809293	HEX NUT M5-.8
294	P0809294	TAP SCREW M4.2 X 25
295	P0809295	CAP SCREW M4-.7 X 12
296	P0809296	ANTI-KICKBACK PAWL
297	P0809297	STOP PADDLE HY56-P3
298	P0809298	LEADSCREW MOUNTING NUT
299	P0809299	DEPTH-OF-CUT INDICATOR (PLANER)

Planer Parts (Cont.)

REF	PART #	DESCRIPTION
300	P0809300	CAP SCREW M5-.8 X 16
301	P0809301	BELT COVER
302	P0809302	CONNECTING PLATE
303	P0809303	FLAT WASHER 8MM
304	P0809304	SET SCREW M10-1.5 X 10
305	P0809305	CAP SCREW M8-1.25 X 16
306	P0809306	RIGHT COVER
307	P0809307	DEPTH-OF-CUT SCALE (PLANER)
308	P0809308	SET SCREW M8-1.25 X 6
309	P0809309	LEADSCREW COVER (SHORT)
310	P0809310	FIXED SHAFT SLEEVE
311	P0809311	LEADSCREW COVER (LONG)
312	P0809312	TABLE BASE
313	P0809313	LEADSCREW (SHORT)
314	P0809314	LEADSCREW (LONG)
315	P0809315	BALL BEARING 6000ZZ
316	P0809316	FIXED PLATE
317	P0809317	SPACER 20 X 29 X 5.5
318	P0809318	SPROCKET 10T

REF	PART #	DESCRIPTION
319	P0809319	FLAT WASHER 4 X 16 X 2
320	P0809320	CAP SCREW M4-.7 X 12
321	P0809321	EXT RETAINING RING 30MM
322	P0809322	CHAIN #35-166
323	P0809323	FIXED PLATE
324	P0809324	SPROCKET 10T
325	P0809325	SLEEVE
326	P0809326	ROLLER BRACKET
327	P0809327	BEARING SLEEVE
328	P0809328	BALL BEARING 6201ZZ
329	P0809329	BED EXTENSION ROLLER
333	P0809333	ROLL PIN 3 X 12
334	P0809334	FENDER WASHER 6MM
335	P0809335	CAP SCREW M8-1.25 X 20
336	P0809336	WORM GEAR ASSEMBLY
337	P0809337	BLADE JACK NUT M8-1.25
338	P0809338	CAP SCREW M5-.8 X 12
339	P0809339	CAP SCREW M5-.8 X 10

Tools & Accessories



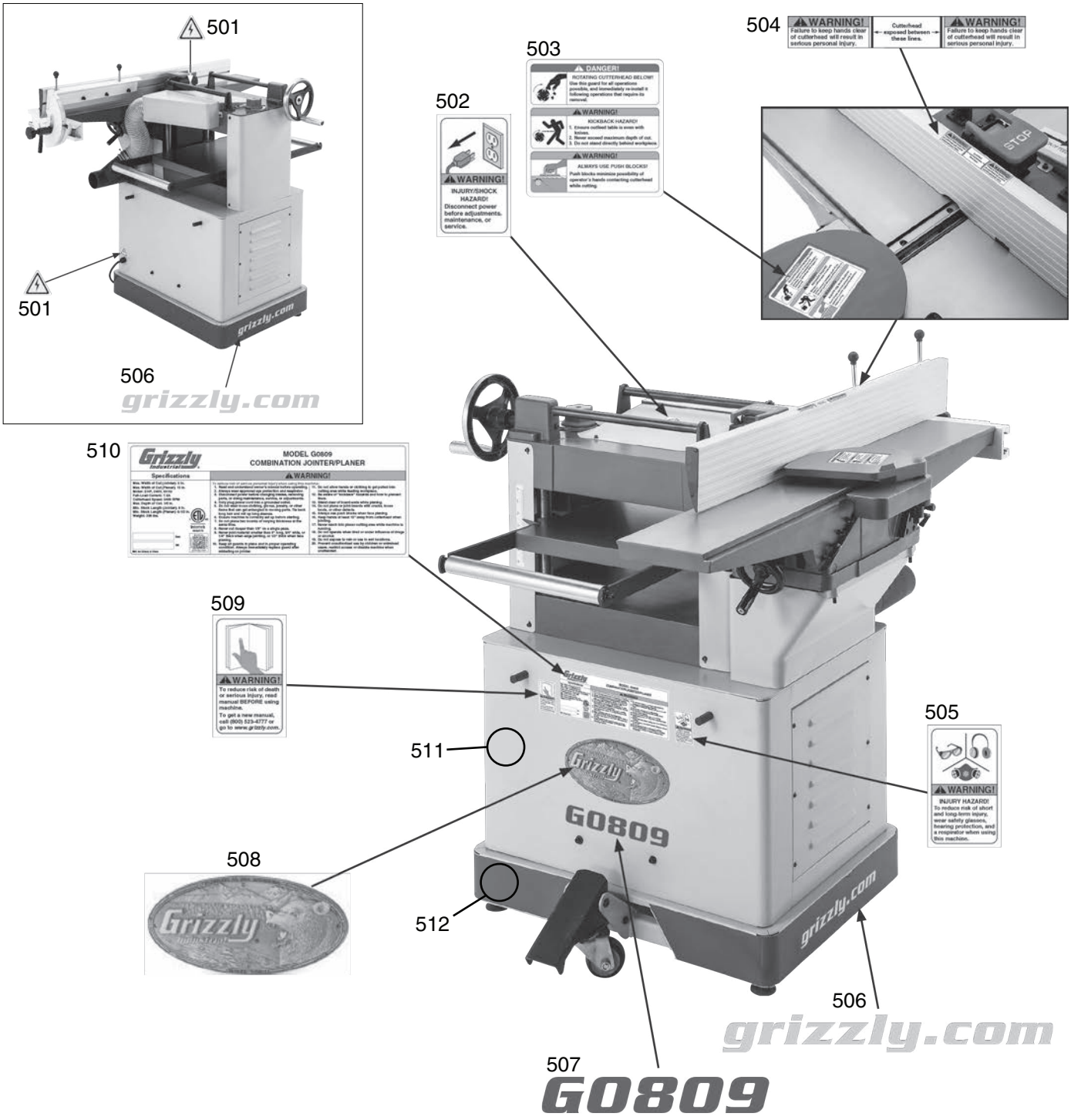
REF	PART #	DESCRIPTION
401	P0809401	KNIFE-SETTING JIG ASSY (JOINTER)
401-1	P0809401-1	E-CLIP 8MM
401-2	P0809401-2	KNIFE-SETTING JIG FOOT
401-3	P0809401-3	KNIFE-SETTING JIG SHAFT 12 X 102MM
402	P0809402	KNIFE-SETTING JIG ASSY (PLANER)
402-1	P0809402-1	E-CLIP 8MM
402-2	P0809402-2	KNIFE-SETTING JIG FOOT
402-3	P0809402-3	KNIFE-SETTING JIG SHAFT 12 X 205MM

REF	PART #	DESCRIPTION
403	P0809403	PUSH BLOCKS
406	P0809406	WIRE DUST HOSE CLAMP 4"
407	P0809407	HEX WRENCH 3MM
408	P0809408	HEX WRENCH 4MM
409	P0809409	HEX WRENCH 5MM
410	P0809410	HEX WRENCH 6MM
411	P0809411	HEX WRENCH 8MM

⚠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.

Labels & Cosmetics



REF	PART #	DESCRIPTION
501	P08090501	ELECTRICITY LABEL
502	P08090502	SHOCK HAZARD LABEL
503	P08090503	CUTTERHEAD WARNING LABEL
504	P08090504	FENCE WARNING LABEL
505	P08090505	EAR/EYE/LUNG WARNING LABEL
506	P08090506	GRIZZLY.COM LABEL

REF	PART #	DESCRIPTION
507	P08090507	MODEL NUMBER LABEL
508	P08090508	GRIZZLY LOGO PLATE
509	P08090509	READ MANUAL LABEL
510	P08090510	MACHINE ID LABEL
511	P08090511	TOUCH-UP PAINT, GRIZZLY PUTTY
512	P08090512	TOUCH-UP PAINT, GRIZZLY GREEN

Grizzly Industrial, Inc. WARRANTY CARD

Name _____

Street _____

City _____ State _____ Zip _____

Phone # _____ Email _____

Model # _____ Order # _____ Serial # _____

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

1. How did you learn about us?

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

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

____ Cabinetmaker & FDM
____ Family Handyman
____ Hand Loader
____ Handy
____ Home Shop Machinist
____ Journal of Light Cont.
____ Live Steam
____ Model Airplane News
____ Old House Journal
____ Popular Mechanics
____ Popular Science
____ Popular Woodworking
____ Precision Shooter
____ Projects in Metal
____ RC Modeler
____ Rifle
____ Shop Notes
____ Shotgun News
____ Today's Homeowner
____ Wood
____ Wooden Boat
____ Woodshop News
____ Woodsmith
____ Woodwork
____ Woodworker West
____ Woodworker's Journal
____ Other:

3. What is your annual household income?

____ $20,000-$29,000 ____ $30,000-$39,000 ____ $40,000-$49,000
____ $50,000-$59,000 ____ $60,000-$69,000 ____ $70,000+

4. What is your age group?

____ 20-29 ____ 30-39 ____ 40-49
____ 50-59 ____ 60-69 ____ 70+

5. How long have you been a woodworker/metalworker?

____ 0-2 Years ____ 2-8 Years ____ 8-20 Years ____ 20+ Years

6. How many of your machines or tools are Grizzly?

____ 0-2 ____ 3-5 ____ 6-9 ____ 10+

7. Do you think your machine represents a good value? _____Yes _____No

8. Would you recommend Grizzly Industrial to a friend? _____Yes _____No

9. Would you allow us to use your name as a reference for Grizzly customers in your area?
Note: *We never use names more than 3 times.* _____Yes _____No

10. Comments: _____

_____

_____

_____

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE

Place
Stamp
Here

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

FOLD ALONG DOTTED LINE

Send a Grizzly Catalog to a friend:

Name_____

Street_____

City_____State_____Zip_____

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

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.