



carbatec®

300mm Helical Head Jointer

JN-XC300C MANUAL

CARBATEC.COM.AU

3 YEAR
WARRANTY

THANK YOU FOR CHOOSING

carbatec®

Carbatec has been a trusted brand for woodworking enthusiasts and professionals across Australia and New Zealand, since 1987.

Our quality woodworking products are designed and built to offer value and performance, making the latest features and technological advancements more accessible to Aussie woodworkers.

Backed by our no-fuss after-sales care and warranty support, you can trust Carbatec to keep you woodworking, as promised.


We look forward to sharing in your woodworking journey!

If you have any questions about our products or service, please call us on **1800 658 111** or email us at info@carbatec.com.au

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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.

Inventory (Figures 8–10)	Qty
A. Jointer.....	1
B. Control Panel Pedestal Assembly.....	1
C. Fence Assembly.....	1
D. Cutterhead Guard.....	1
E. Push Blocks.....	2
F. Hardware Bag (Not Shown)	
• Cap Screws M10-1.5 x 30 (Pedestal).....	4
• Lock Washers 10mm (Pedestal).....	4
• Flat Washers 10mm (Pedestal)	4
• Lock Nut M12-1.75 (Fence)	1
• Flat Washer 12mm (Fence)	1
• Open-End Wrench 12/14mm	1
• Open-End Wrench 17/19mm	1
• Hex Wrenches 3, 4, 5, 8mm.....	1 Each
• Torx Driver Bit T20.....	2
• Torx L-Wrench T20	2
• Flat Head Torx Screws T20 M6-1 x 15 ...	3
• Carbide Inserts 15 x 15 x 2.5mm.....	5



Figure 8. Jointer assembly.

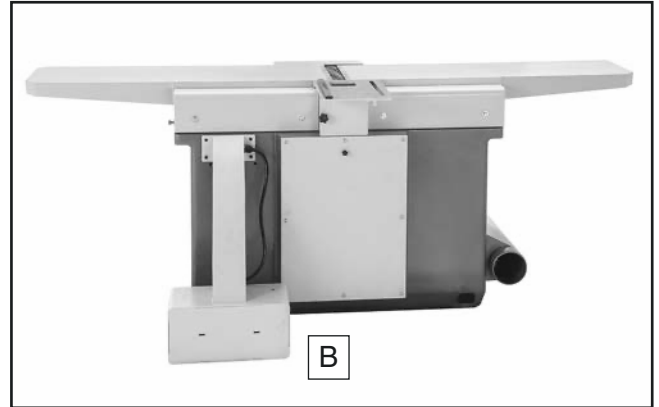


Figure 9. Control panel pedestal assembly.

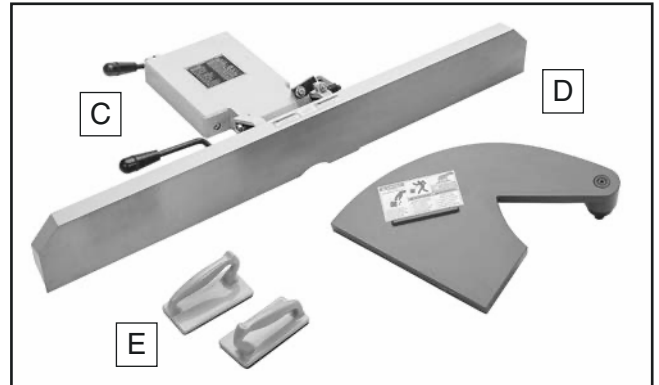


Figure 10. Additional crate contents.

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.

NOTICE

Smaller components, tools and accessory items will be packed INSIDE the dust chute. Please ensure remove all these items before lifting and locating your machine.

IMPORTANT

Key information can be found on the inspection panel, found on the rear of the machine.

carbatec QUALITY INSPECTED	
Model:	
Voltage	
Freq:	
Phase:	
Amp:	
kW:	
Speed:	
Lot No.:	
Serial No.:	
Date:	
Made in	for:
CARBATEC PTY LTD	
Brisbane - Australia	



Record the serial number and date of purchase in your manual for future reference.

SERIAL NUMBER:

.....

DATE OF PURCHASE:

.....

SAFETY INSTRUCTIONS

IMPORTANT! Safety is the single most important consideration in the operation of this equipment. The following instructions must be followed at all times. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

There are certain applications for which this tool was designed. We strongly recommend that this tool not be modified and/or used for any other application other than that for which it was designed. If you have any questions about its application, do not use the tool until you have contacted us and we have advised you.

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols and the explanations with them deserve your careful attention and understanding.

The symbol warnings do not, by themselves, eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

WARNING

Be sure to read and understand all safety instructions in this manual, including all safety alert symbols such as "DANGER," "WARNING," and "CAUTION" before using this tool. Failure to following all instructions listed below may result in electric shock, fire, and/or serious personal injury.

SYMBOL MEANING



A safety alert symbol Indicates **DANGER, WARNING, or CAUTION.** May be used in conjunction with other symbols or pictographs.



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, could result in minor or moderate injury.

NOTICE

(Without Safety Alert Symbol) Indicates a situation that may result in property damage.



Carbatec products bearing the Regulatory Compliance Mark (RCM) have been tested in accordance with applicable Australian/New Zealand Standards to ensure their compliance with all mandatory standards and regulations (applicable at time of original sale). Carbatec Pty Ltd are registered as a responsible supplier with relevant Australian government departments and our products are registered on the EESS & ACMA database.

GENERAL SAFETY

Operating a power tool can be dangerous if safety and common sense are ignored. The operator must be familiar with the operation of this machine. Read this manual to understand this machine. **DO NOT OPERATE** this machine **IF YOU DO NOT FULLY UNDERSTAND** the limitations of this tool. **DO NOT MODIFY** this machine in any way.

BEFORE USING THIS MACHINE



To avoid serious injury and damage to the tool, read and follow all of the Safety and Operating Instructions before operating the machine.



- 1. SOME DUST CREATED BY USING POWER TOOLS CONTAINS CHEMICALS** known 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 lumberYour 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.
- 2. READ** this entire manual. **LEARN** how to use the tool for its intended applications.
- 3. GROUND ALL TOOLS.** If the tool is supplied with a 3-prong plug, it must be plugged into a 3-contact electrical receptacle. The third prong is used to ground the tool and provide protection against accidental electric shock.
- 4. AVOID A DANGEROUS WORKING ENVIRONMENT.** Do not use electrical tools in a damp environment or expose them to rain.
- 5. DO NOT USE** electrical tools in the presence of **FLAMMABLE** liquids or gases.
- 6. ALWAYS KEEP THE AREA CLEAN,** well lit, and organized. Do not work in an environment with floor surfaces that are slippery from debris, grease, and wax.
- 7. KEEP VISITORS AND CHILDREN AWAY.** Do not permit people to be in the immediate work area, especially when the electrical tool is operating.

- 8. DO NOT FORCE THE TOOL** to perform an operation for which it was not designed. It will do a safer and higher quality job by only performing operations for which the tool was intended.
- 9. WEAR PROPER CLOTHING.** Do not wear loose clothing, gloves, neckties, or jewellery. These items can get caught in the machine during operations and pull the operator into the moving parts. The user must wear a protective cover on their hair, if hair is long, to prevent it from contacting any moving parts.
- 10. CHILDPROOF THE WORKSHOP AREA** by removing switch keys, unplugging tools from the electrical receptacles, and using padlocks.

GENERAL SAFETY

- 1. ALWAYS UNPLUG THE TOOL FROM THE ELECTRICAL RECEPTACLE**
when making adjustments, changing parts or performing any maintenance.
- 2. KEEP PROTECTIVE GUARDS IN PLACE AND IN WORKING ORDER.**
- 3. AVOID ACCIDENTAL STARTING.** Make sure that the power switch is in the "OFF" position before plugging in the power cord to the electrical receptacle.
- 4. REMOVE ALL MAINTENANCE TOOLS** from the immediate area prior to turning "ON" the machine.
- 5. USE ONLY RECOMMENDED ACCESSORIES.** Use of incorrect or improper accessories could cause serious injury to the operator and cause damage to the tool. If in doubt, check the instruction manual that comes with that particular accessory.
- 6. NEVER LEAVE A RUNNING TOOL UNATTENDED.** Turn the power switch to the "OFF" position. Do not leave the tool until it has come to a complete stop.
- 7. DO NOT STAND ON A TOOL.** Serious injury could result if the tool tips over, or you accidentally contact the tool.
- 8. DO NOT STORE ANYTHING ABOVE OR NEAR** the tool where anyone might try to stand on the tool to reach it.
- 9. MAINTAIN YOUR BALANCE.** Do not extend yourself over the tool. Wear oil resistant rubber soled shoes. Keep floor clear of debris, grease, and wax.
- 10. MAINTAIN TOOLS WITH CARE.** Always keep tools clean and in good working order. Keep all blades and tool bits sharp, dress grinding wheels and change other abrasive accessories when worn.
- 11. EACH AND EVERY TIME, CHECK FOR DAMAGED PARTS PRIOR TO USING THE TOOL.** Carefully check all guards to see that they operate properly, are not damaged, and perform their intended functions. Check for alignment, binding or breaking of moving parts. A guard or other part that is damaged should be immediately repaired or replaced.
- 12. DO NOT OPERATE TOOL WHILE TIRED, OR UNDER THE INFLUENCE OF DRUGS, MEDICATION OR ALCOHOL.**
- 13. SECURE ALL WORK.** Use clamps or jigs to secure the work piece. This is safer than attempting to hold the work piece with your hands.
- 14. STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE WHEN OPERATING A POWER TOOL.** A moment of inattention while operating power tools may result in serious personal injury.
- 15. ALWAYS WEAR A DUST MASK TO PREVENT INHALING DANGEROUS DUST OR AIRBORNE PARTICLES,** including wood dust, crystalline silica dust and asbestos dust. Direct particles away from face and body. Always operate tool in well ventilated area and provide for proper dust removal. Use dust extraction system wherever possible. Exposure to dust may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing dust, and avoid prolonged contact with dust. Allowing dust to get into your mouth or eyes, or lay on your skin may promote absorption of harmful material. Always use properly fitting AS/NZS approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.
- 16. USE A PROPER EXTENSION CORD IN GOOD CONDITION.** Use of extension cords should be avoided where possible. When using an extension cord, be sure to have a cord heavy enough to carry the current your product will draw, and with compatible pin configuration and connections. NEVER use an extension cord rated at less than your machine. Longer run extensions will need heavier duty extension cords. Only connect your extension cord or machine to a receptacle that accepts your plug and never modify your plug to suit a receptacle.

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 blindness or eye injuries. 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. Warped workpieces must be surface planed first with cupped side facing down.

MAXIMUM CUTTING DEPTH. To reduce risk of kickback, never cut deeper than $\frac{1}{8}$ " 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 14" long, $\frac{3}{4}$ " wide, or $\frac{1}{2}$ " thick.

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 $\frac{1}{8}$ " (0.125") from cutterhead body.

ELECTRICAL SAFETY

WARNING

This tool must be grounded while in use to protect the operator from electric shock. IN THE EVENT OF A MALFUNCTION OR BREAKDOWN, grounding provides the path of least resistance for electric current and reduces the risk of electric shock. This tool may be equipped with an electric cord that has an equipment grounding conductor and a grounding plug. **The plug MUST Be plugged** into a matching electrical receptacle that is properly installed and grounded in accordance with **ALL** local codes and ordinances.

DO NOT MODIFY THE PLUG PROVIDED.

If it will not fit the electrical receptacle, have the proper electrical receptacle installed by a qualified electrician.

IMPROPER ELECTRICAL CONNECTION of the equipment grounding conductor can result in risk of electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. **DO NOT** connect the equipment grounding conductor to a live terminal if repair or replacement of the electric cord or plug is necessary.

CHECK WITH A QUALIFIED ELECTRICIAN

or service personnel if you do not completely understand the

grounding instructions, or if you are not sure the tool is properly grounded.

Use only a 3-wire extension cord that has a 3-prong grounding plug and a 3-pole receptacle that accepts the tool's plug. Replace a damaged or worn cord immediately.

Power tools and machinery are intended for use on a circuit that has an electrical receptacle as shown in **FIGURE A** that shows a 10 Amp 3-wire electrical plug and corresponding electrical receptacle that has a grounding conductor.

If this particular tool has been designed and fitted with a two prong electrical plug, ensure it displays the 'Double Insulated' logo shown in **FIGURE B**, before connecting to a 3-wire receptacle.

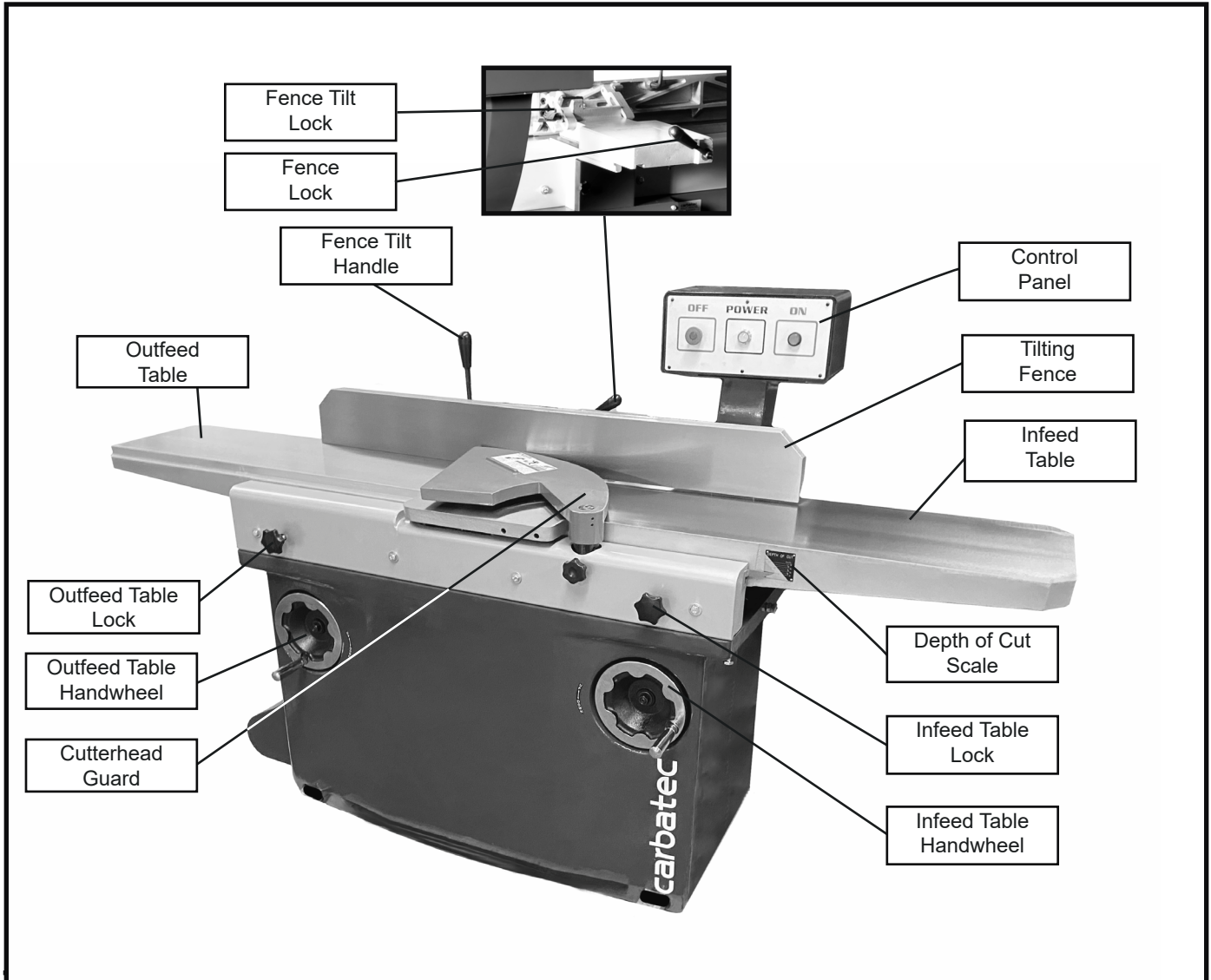
WARNING

Never modify the standard fitted electrical plugs to fit your receptacle.



Identification

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

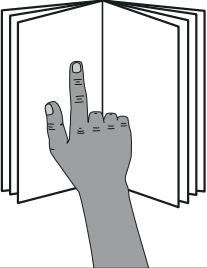


⚠️ WARNING

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 $\frac{1}{8}$ " or planing cuts deeper than $\frac{1}{16}$ ".
- d) Always use hold-down or push blocks when jointing material narrower than 3" or planing material thinner than 3".
- e) Never perform jointing, planing, or rabbeting cuts on pieces shorter than 14" in length.

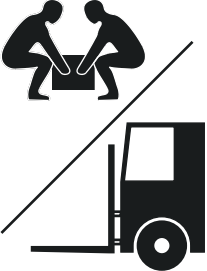
SECTION 3: SETUP



!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.



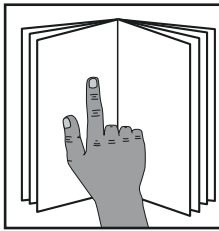
!WARNING
SUFFOCATION HAZARD!
 Keep children and pets away from plastic bags or packing materials shipped with this machine.

Needed for Setup

The following are needed to complete the setup process:

Description	Qty
• Additional People	1
• Safety Glasses	1 Ea.
• Leather Gloves	1 Pair Ea.
• Cleaner/Degreaser	As Needed
• Disposable Shop Rags	As Needed
• Lifting Equipment (Min 700kg Rating)	
—Forklift or Hoist	1
—Lifting Slings	2
• Wrenches or Sockets 19mm	1
• Precision Level	1
• Phillips Screwdriver #2	1
• Straightedge	1
• Dust Collection System	1
• Dust Hose 5"	1
• Hose Clamps 5"	2

Controls & Components



! WARNING

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

Refer to **Figures 1–6** 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.

Control Panel

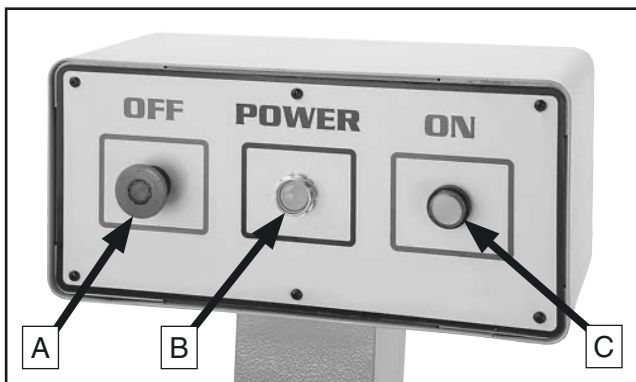


Figure 1. Location of ON/OFF buttons.

- A. OFF Button:** Stops motor when pressed and disables ON button. Remains depressed until manually reset. Reset by twisting OFF button clockwise until it springs outward.
- B. Power Lamp:** Illuminates when machine is connected to power.
- C. ON Button:** Starts motor when pressed (only if OFF button is not in depressed position).

Table Controls

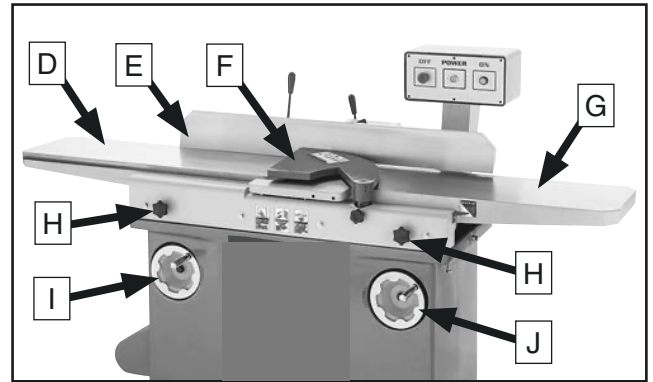


Figure 2. Location of main table controls.

- D. Outfeed Table:** Supports workpiece after it passes over cutterhead. For safety purposes and optimum cutting results, the outfeed table must be properly adjusted so it is even with highest point of cutterhead insert rotation (aka TDC).
- E. Fence:** Supports workpiece laterally as it moves across cutterhead; determines angle of cut when edge or bevel jointing.
- F. 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.
- G. Infeed Table:** Supports workpiece before it reaches cutterhead. Position of infeed table relative to cutterhead inserts determines depth of cut.
- H. Table Locks:** Tighten to secure position of infeed and outfeed tables; loosen to allow vertical table movement with adjustment handwheels.
- I. Outfeed Table Adjustment Handwheel:** Adjusts outfeed table position (when outfeed table lock and positive stop bolts are loosened).
- J. Infeed Table Adjustment Handwheel:** Adjusts position of infeed table (when infeed table lock is loosened).

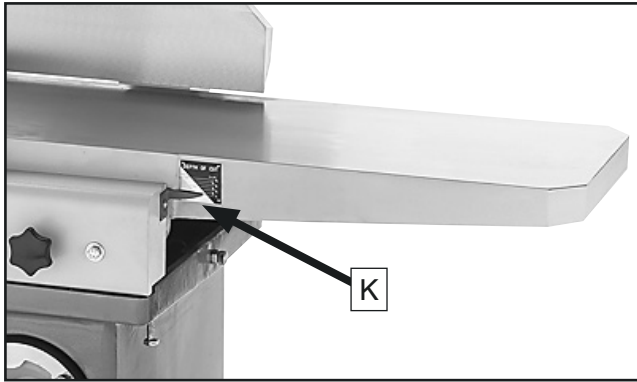


Figure 3. Location of depth-of-cut scale indicator.

K. Depth-of-Cut Scale: Indicates depth of cut (per pass).

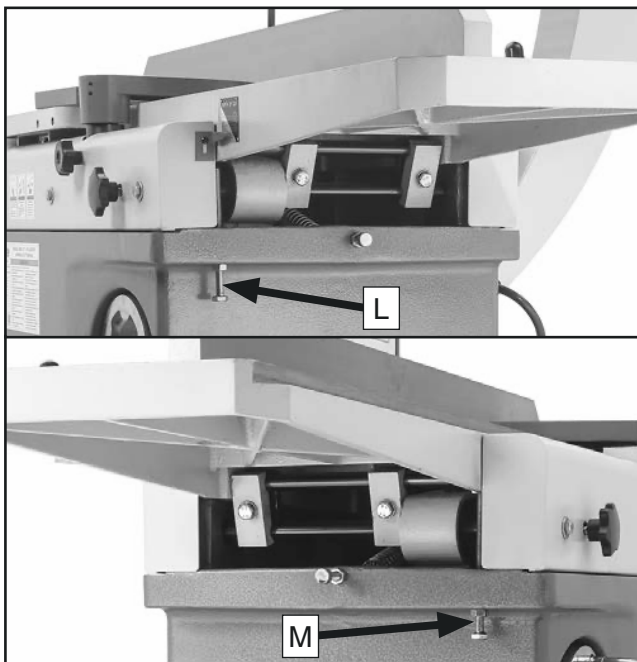


Figure 4. Location of positive stops bolts.

L. Infeed Positive Stop Bolt: Allows operator to quickly adjust the infeed table to perform heavy or light cuts. It controls the bottom range of infeed table movement. A jam nut locks the positive stop bolt in position so it will not move during operation.

M. Outfeed Positive Stop Bolt: Adjusts the outfeed table height. It controls the bottom range of outfeed table movement. A jam nut locks the positive stop bolt in position so it will not move during operation.

Fence Controls

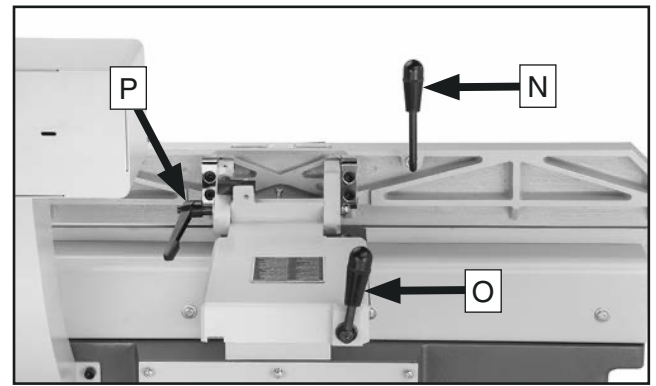


Figure 5. Location of fence controls.

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

O. Fence Lock Lever: Tightens to secure fence position along width of tables; loosens to allow lateral adjustment.

P. Fence Tilt Lock: Secures fence at any position in available tilt range.

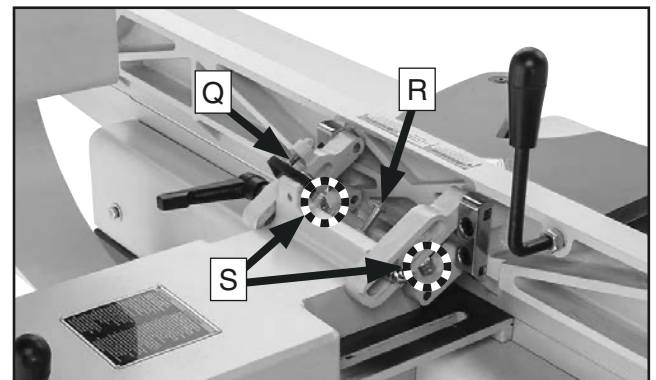


Figure 6. Location of fence tilt locks.

Q. 90° Fence Tilt Stop: Stops fence at 90°.

R. 45° Outward Fence Tilt Stops: Stop fence at 45° outward (135°).

S. 45° Inward Fence Tilt Stop: Stops fence at 45° inward.

Note: *Even when fence is resting against stops, fence tilt lock must be tightened before starting machine.*

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.

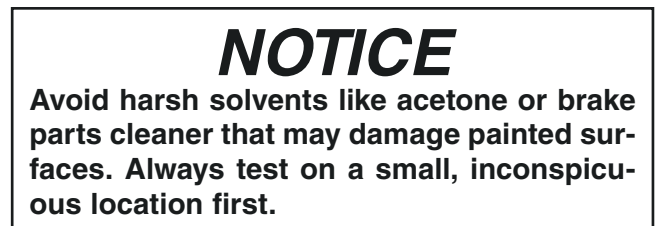
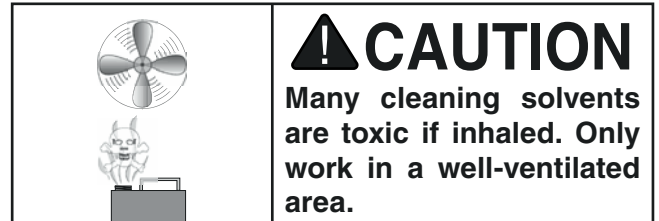
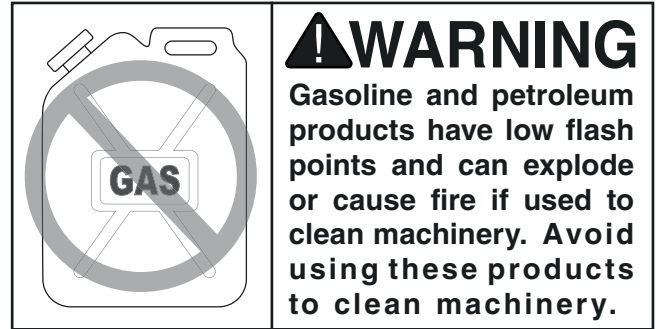
There are many ways to remove this rust preventative, but the following steps work well in a wide variety of situations. Always follow the manufacturer's instructions with any cleaning product you use and make sure you work in a well-ventilated area to minimize exposure to toxic fumes.

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.



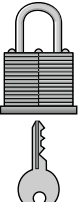
Site Considerations

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.**

	<p>CAUTION Children or untrained people may be seriously injured by this machine. Only install in an access restricted location.</p>
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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.

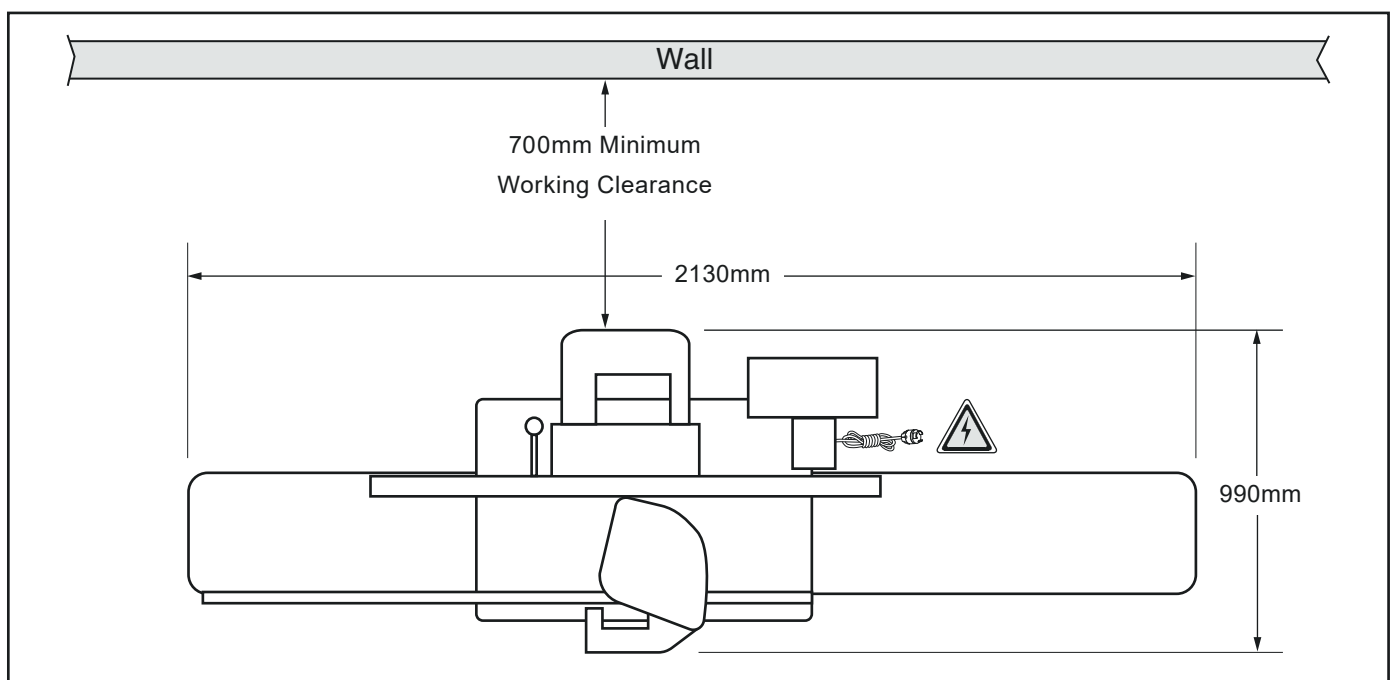
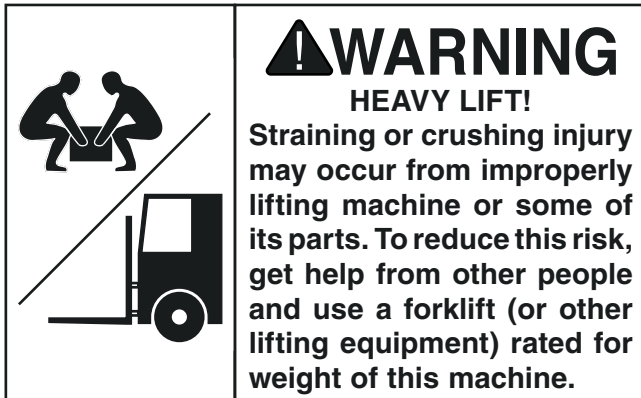


Figure 12. Minimum working clearances.

Moving & Placing Jointer

NOTICE

Make sure lifting straps do not touch control panel pedestal in next step.



DO NOT attempt to lift or move jointer without using proper lifting equipment (such as forklift or crane) or necessary assistance from other people. Each piece of lifting equipment must be rated for **Min 700kg Rating**, to support dynamic loads that may be applied while lifting.

Review the **Power Supply** section beginning on **Page 11**, then prepare permanent location for the jointer.

IMPORTANT: Make sure prepared location is clean and level.

To move and place jointer:

1. Move jointer near its prepared location while still inside shipping crate.
2. Remove top and sides of shipping crate, then place small items aside in safe location.

IMPORTANT: To avoid damaging control panel pedestal, secure it in upright position prior to moving and placing jointer

3. Attach lifting slings to infeed and outfeed tables, as shown in **Figure 13**. Position slings as close to base as possible and tighten table locks to prevent damaging tables.

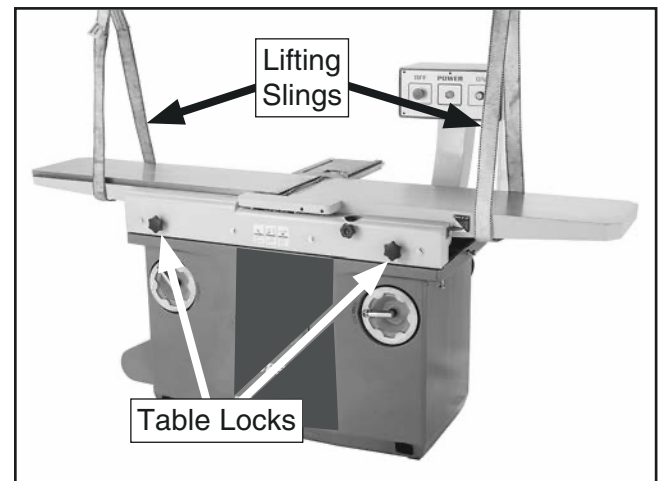


Figure 13. Lifting slings properly positioned.

4. Tension lifting slings with forklift to make sure they stay in place, then unbolt jointer from shipping pallet.
5. Raise jointer enough to just clear shipping pallet and any floor obstacles and check balance of load. Have your assistant carefully steady jointer to prevent it from swinging.
— If load is not safely balanced, immediately lower jointer and resolve issue before attempting to lift it again.
6. With help to steady load, raise jointer and move it to prepared location.

Note: In next step, use shims between base and floor to avoid warping or cracking cast-iron base.

- Lower jointer into position.

IMPORTANT: Before jointer was shipped from factory, infeed table was fully raised and stop bolt was threaded up against bottom of it to safely secure it during transit. You **MUST** adjust position of infeed stop bolt before attempting to lower infeed table.

- Loosen jam nut (see **Figure 14**) on infeed stop bolt, then unthread stop bolt until table can be lowered to $\frac{1}{8}$ " on depth-of-cut scale, then adjust infeed stop bolt back against infeed table casting and tighten jam nut.

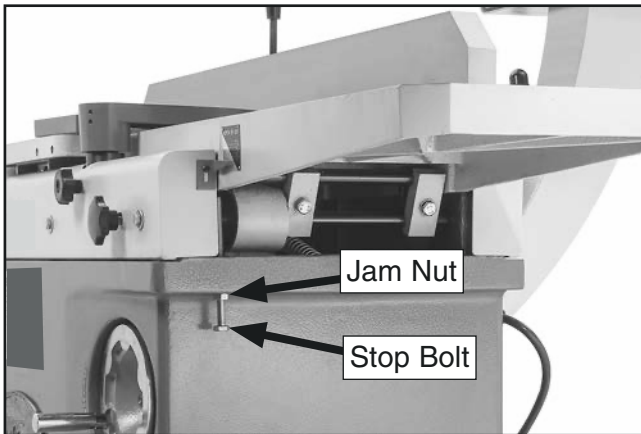


Figure 14. Infeed table stop bolt set to stop infeed table at $\frac{1}{8}$ " maximum depth of cut.

NOTICE

NEVER force table handwheels if you feel resistance. Check positions of stop bolts or for obstructions.

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).

To assemble jointer:

- Secure control panel pedestal to jointer with (4) M10-1.5 x 30 cap screws, (4) 10mm lock washers, and (4) 10mm flat washers, as shown in **Figure 15**.

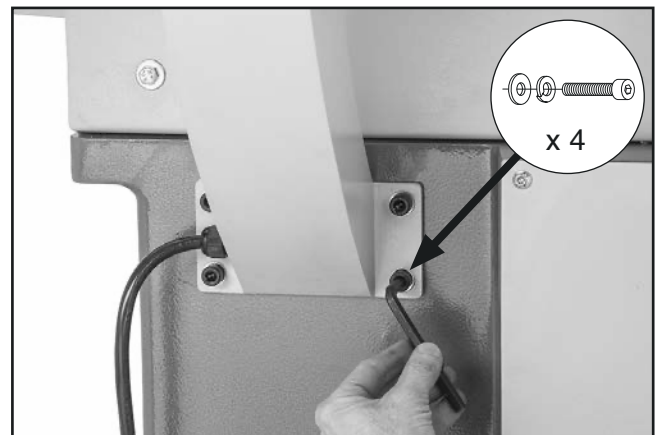


Figure 15. Securing control panel pedestal.

2. Lift fence assembly over fence carriage, slip sliding bushing into the fence carriage slot, ensuring key fits snugly into key slot, as shown in **Figure 16**.

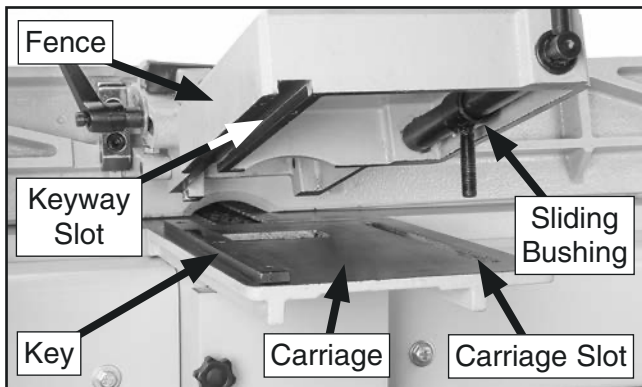


Figure 16. Aligning fence assembly and fence carriage.

3. Secure sliding bushing with (1) M12-1.75 lock nut and (1) 12mm flat washer, as shown in **Figure 17**.

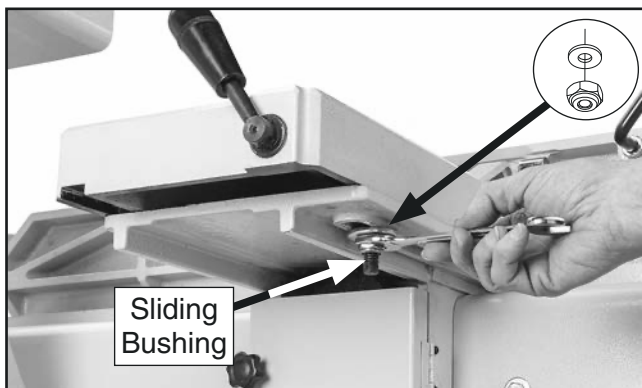


Figure 17. Securing sliding bushing.

4. Position and tighten fence tilt handle, as shown in **Figure 18**.

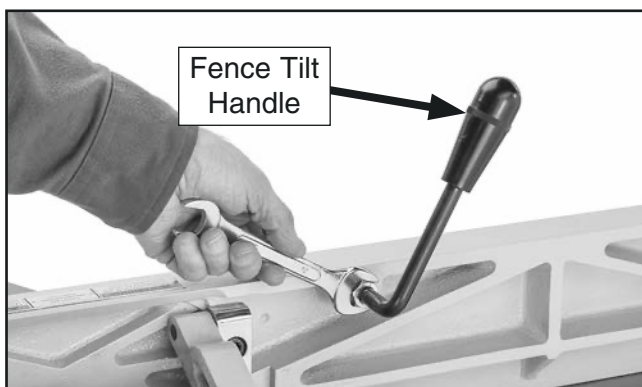


Figure 18. Positioning and tightening fence tilt handle.

5. Install cutterhead guard shaft into mounting hole, as shown in **Figure 19**, then secure it using lock knob.

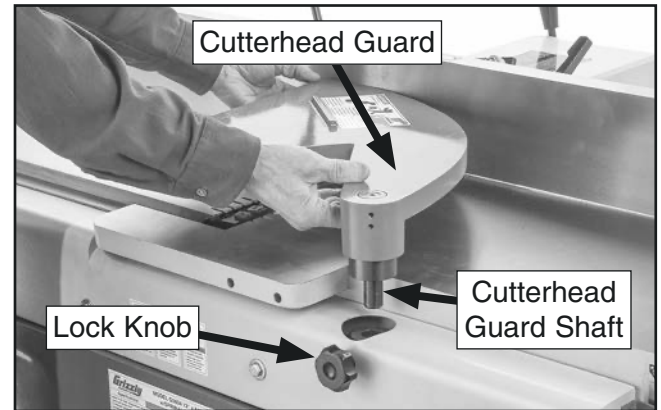


Figure 19. Installing cutterhead guard.

⚠ WARNING

Cutterhead guard is a critical safety feature of this jointer. You MUST install and verify its operation before using the jointer! Failure to properly install this guard will greatly increase risk of serious personal injury.

6. Move fence all the way to back of table, then pull cutterhead guard back and let it go. It should spring back over cutterhead and contact fence.
 - If cutterhead guard *does not* spring back over cutterhead and contact fence, then cutterhead guard tension must be adjusted (refer to **Adjusting Cutterhead Guard Tension**)
7. Perform **Setting Outfeed Table Height**

Dust Collection

⚠ CAUTION

DO NOT operate your jointer without an adequate dust collection system. This machine creates substantial amounts of wood dust while operating. Failure to use a dust collection system can result in short and long-term respiratory illness.

Recommended CFM at Dust Port: 800 CFM

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

To connect a dust collection hose:

1. Fit 5" dust hose over dust port, as shown in **Figure 20**, then secure it in place with hose clamp.

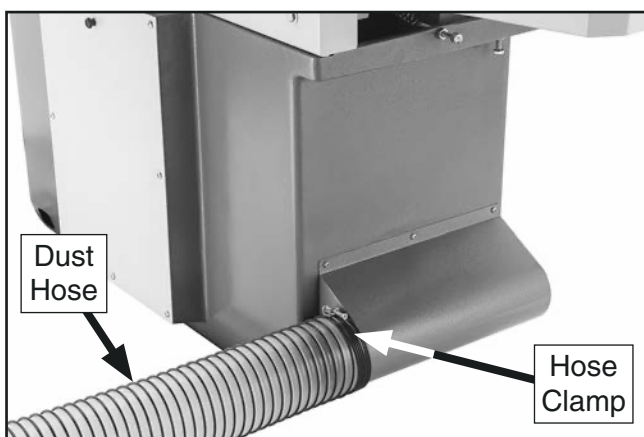


Figure 20. Dust hose attached to dust port.

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.

The Test Run verifies that safety features stop the machine when needed, and that the machine operates properly prior to regular operation.

⚠ 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. Push OFF button (see **Figure 21**).

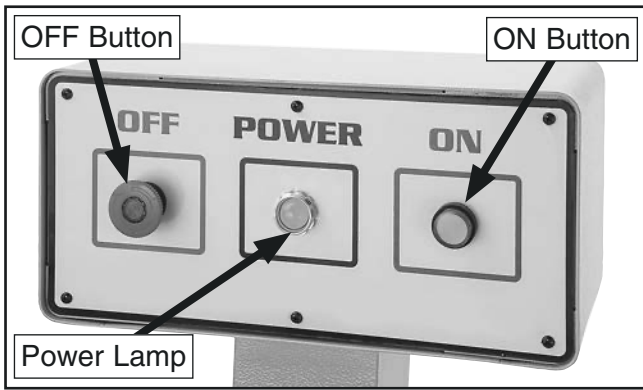


Figure 21. Control panel components.

3. Connect machine to power source. Power lamp will illuminate (see **Figure 21**).
4. Twist OFF button clockwise until it pops out (see **Figure 22**). This resets button so machine will start.

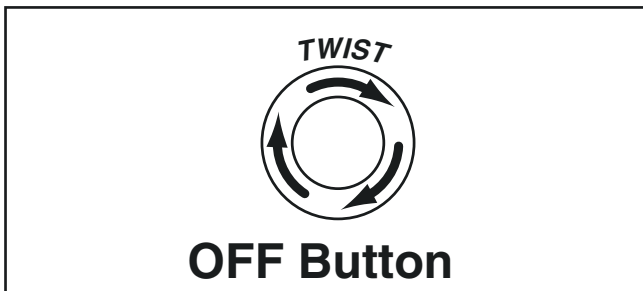


Figure 22. Resetting the OFF button.

5. Push ON button to turn machine **ON**. A correctly operating machine will run smoothly with little or no vibration or rubbing noises.
6. Press OFF button to turn machine **OFF**.
7. **WITHOUT** resetting OFF button, press ON button. Machine should not start.
 - If machine *does not* start, the OFF button safety feature is working correctly. Congratulations! The Test Run is complete.
 - If machine *does* start (with OFF button pushed in), immediately disconnect power to machine. The OFF button safety feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

Recommended Adjustments

For your convenience, the adjustments listed below have been performed at the factory and no further setup is required to operate your machine. However, because of the many variables involved with shipping, we recommend that you at least verify the following adjustments to ensure the best possible results from your new machine.

Factory adjustments that should be verified:

- Outfeed Table Height
- Depth Scale Calibration
- Table Parallelism
- Fence Stop Accuracy

Tightening Belts

The final step in the setup process must be done after approximately 16 hours of operation. During this first 16 hours, the belt will stretch and seat into the pulley grooves. After this time, you must re-tension the belt to avoid slippage and burn out. Refer to **Page 35** when you are ready to perform this important adjustment.

Note: *Pulleys and belt can get hot. This is a normal condition. Allow them to cool before making adjustments.*

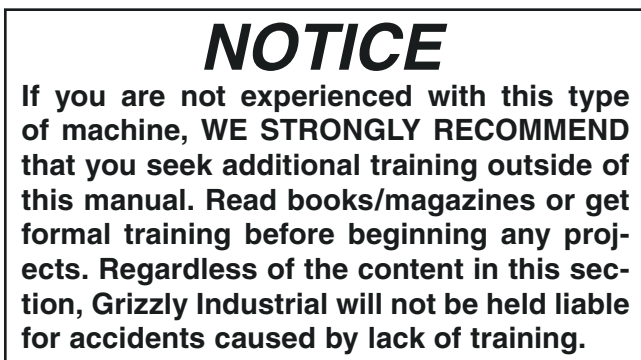
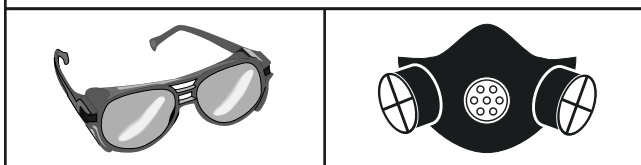
A small amount of black belt dust at the bottom of the belt housing is normal during the life of the machine and does not indicate a problem with the machine or belt.

SECTION 4: OPERATIONS

Operation Overview

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

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



To complete a typical operation with the jointer, the operator does the following:

1. Examines workpiece to verify it is safe and suitable for cutting.
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 any other required protective equipment.
6. Starts jointer.
7. Using push blocks as needed, holds workpiece firmly against infeed table and fence, and feeds workpiece into cutterhead at a steady and controlled rate until entire length of workpiece has been cut and it clears the cutterhead on the outfeed table side.
8. Repeats cutting process described above until desired results are achieved.
9. Stops jointer.

Stock Inspection & Requirements

Follow these rules when choosing and jointing stock:

- **DO NOT joint or surface plane stock that contains large or loose knots.** Injury to the operator or damage to the workpiece can occur if a knot becomes dislodged during the cutting operation.
- **DO NOT joint or surface plane against the grain direction.** Cutting against the grain increases the likelihood of 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 on the jointer so the grain points down and toward you as viewed on the edge of the stock (see **Figure** below).

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

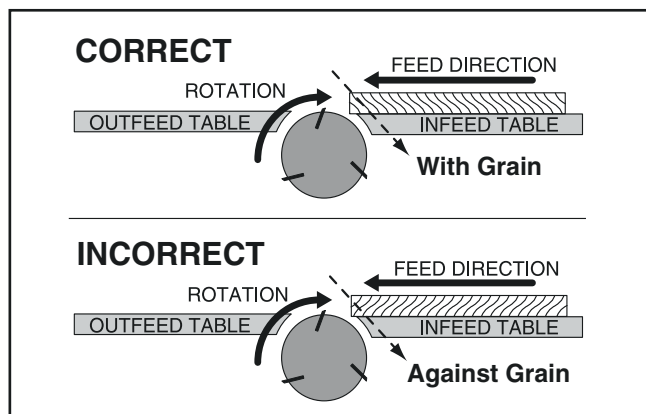


Figure 23. Proper grain alignment with the cutterhead.

- **Only process natural wood fiber through your jointer.** Your jointer is designed to cut only natural wood stock. This machine is NOT designed to cut metal, glass, stone, tile, products with lead-based paint, or products that contain asbestos—cutting these materials with a jointer may lead to injury.

- **Scrape all glue off the workpiece before jointing.** Glue deposits on the workpiece, hard or soft, will gum up the cutterhead and produce poor results.
- **Remove foreign objects from the workpiece.** Make sure that any stock you process with the jointer is clean and free of dirt, nails, staples, tiny rocks or any other foreign objects that could damage the cutterhead. These particles could also cause a spark as they strike the cutterhead and create a fire hazard.

IMPORTANT: Wood stacked on a concrete or dirt surface can have small pieces of concrete or stone pressed into the surface.

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

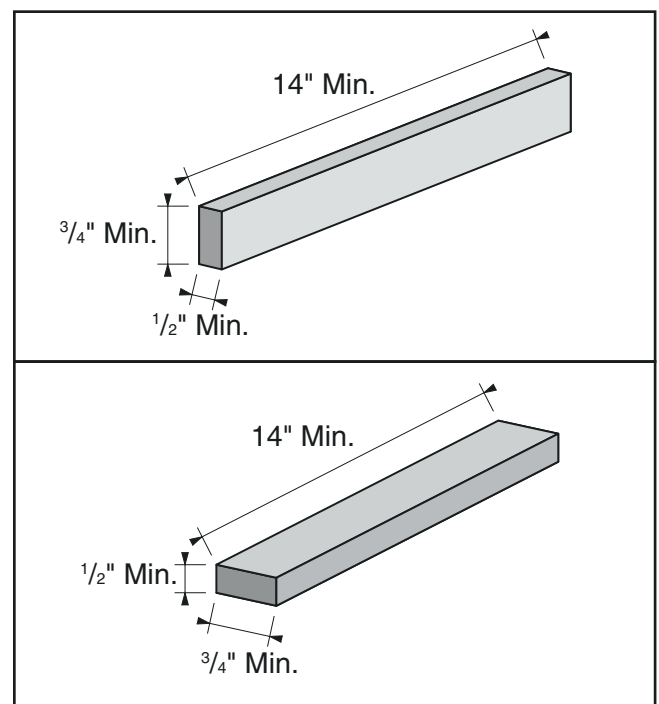


Figure 24. Minimum stock dimensions for jointer.

Squaring Stock

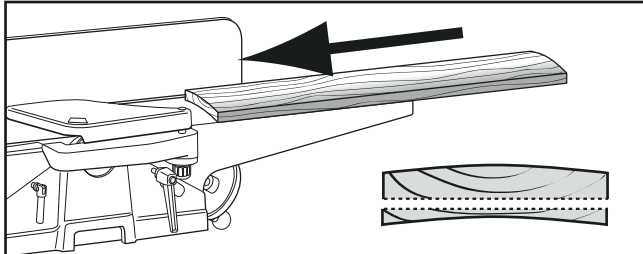
Squaring stock means making it flat and parallel along both length and width, and making the length and width perpendicular to one another.

The purpose of squaring stock is to prepare it for accurate cuts and construction later on.

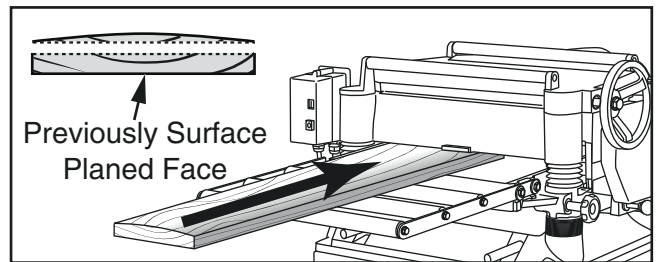
A properly "squared up" workpiece is essential for tasks such as accurate table saw cuts, glue-ups/laminations, cutting accurate bevels on a bandsaw, and many other applications where one surface of a workpiece is used to reference another.

Squaring stock involves four steps performed in the order below:

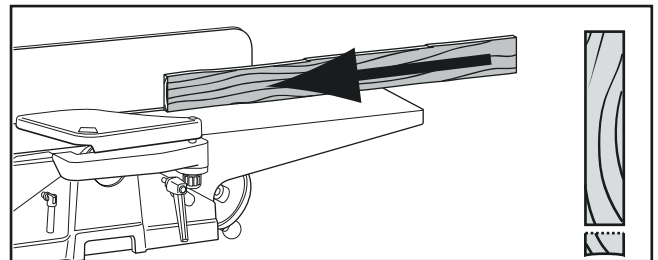
- 1. Surface Plane on Jointer**—Concave face of workpiece is surface planed flat with jointer.



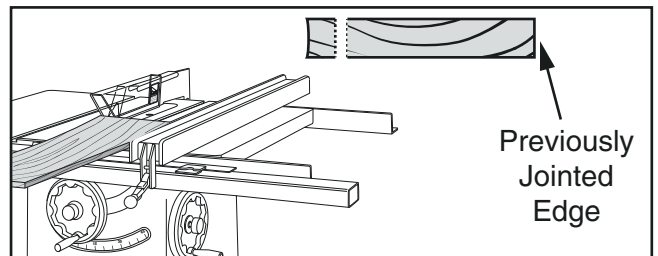
- 2. Surface Plane on a Thickness Planer**—Opposite face of workpiece is surface planed flat with a thickness planer.



- 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.



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!

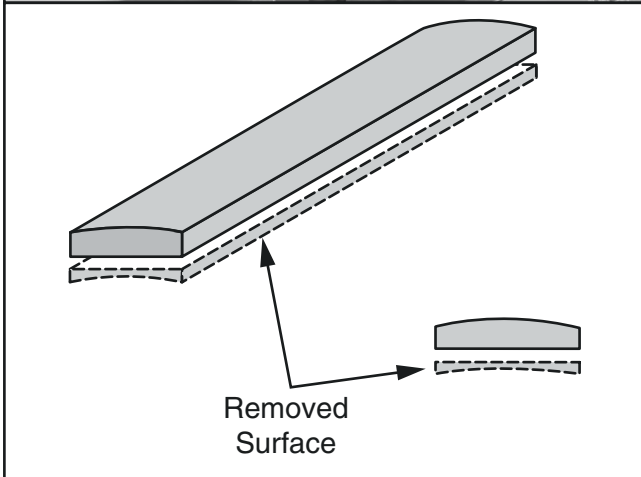


Figure 25. Example photo of a surface planing operation.

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.

IMPORTANT: To minimize risk of kickback, do not exceed a cutting depth of $\frac{1}{8}$ " per pass when surface planing.

3. Set fence to 90°.
4. Start jointer.
5. Place workpiece firmly against fence and infeed table.

IMPORTANT: 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.

IMPORTANT: 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.

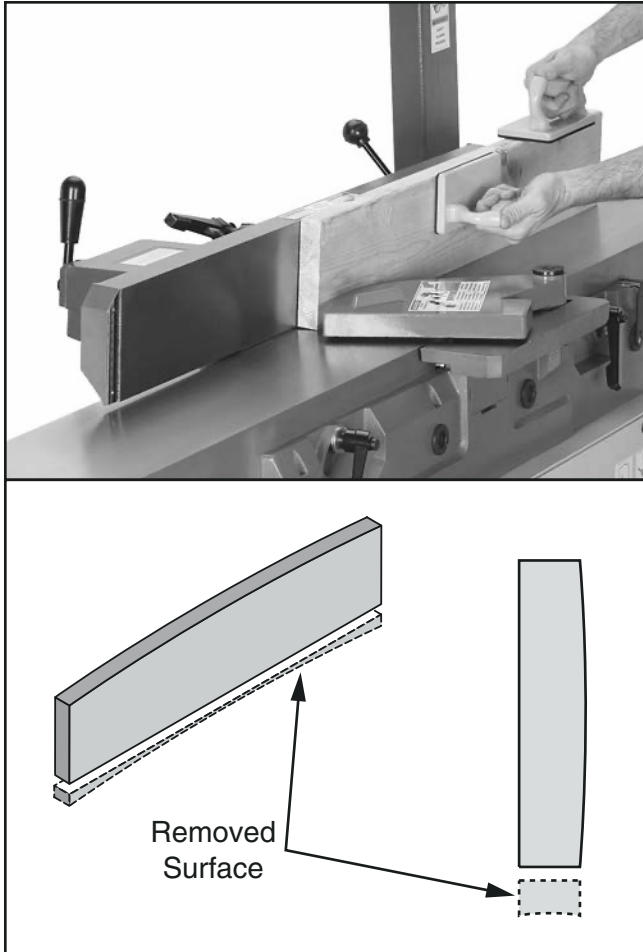


Figure 26. Example photo of an edge jointing operation.

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 1/8" 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.

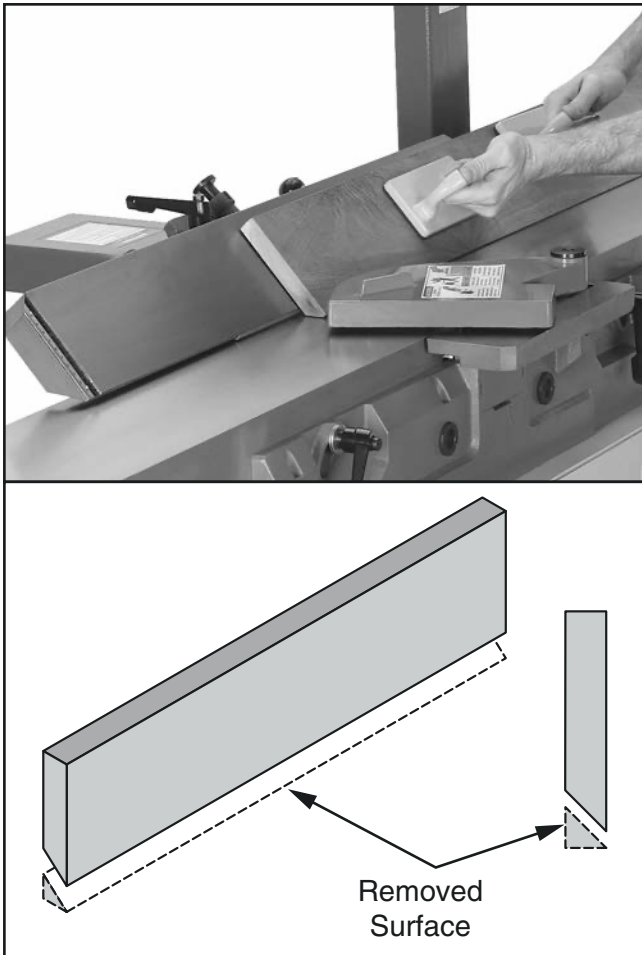


Figure 27. Example photo of fence set up for a bevel cut of 45°.

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 $\frac{1}{16}$ " and $\frac{1}{8}$ ", 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 keep cutterhead guard installed when possible, and **ALWAYS** immediately replace it after performing rabbet cuts.

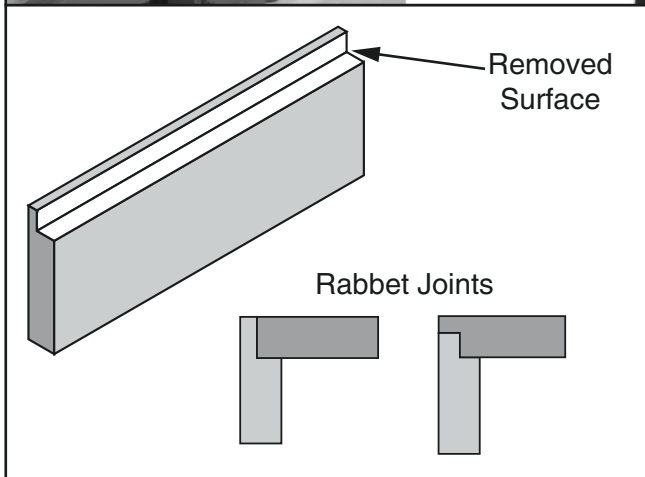


Figure 28. Example photo of typical rabbet cutting operation.

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.

To rabbet 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 desired cutting depth for each pass.

⚠ CAUTION: For safety reasons, cutting depth should never exceed $\frac{1}{8}$ " per pass.

3. Remove cutterhead guard if necessary to perform operation (see **Figures** below.)

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.

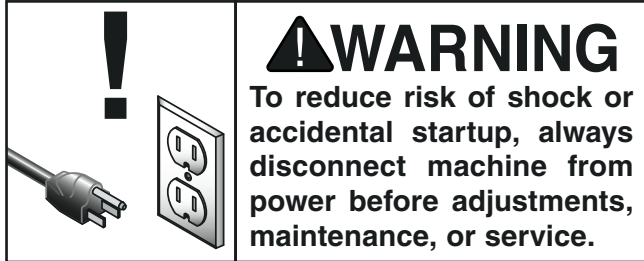
⚠ CAUTION: To ensure workpiece remains stable during cut, concave sides of workpiece must face toward table and fence.

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.

SECTION 6: MAINTENANCE

Schedule



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

Ongoing:

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

- Loose mounting bolts.
- Dust or debris on and around machine.
- Dull or damaged cutterhead inserts.
- Unprotected cast-iron surfaces.
- Worn or damaged wires.
- Any other unsafe condition.

Monthly Check

- V-belt tension, damage, or wear
- Clean/vacuum dust buildup from inside stand and off of motor.

Cleaning & Protecting

Cleaning this machine is relatively easy.

Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin-dissolving cleaner to remove it.

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

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.

Fence & Carriage

Lube Type.. Model SB1365 or ISO 68 Equivalent
Lube Amount As Needed
Lubrication Frequency Daily

Place one or two drops of oil on the fence pivot points (see **Figure 35**) as needed. Before lubricating the fence carriage ways, clean them with mineral spirits. Apply a thin coat of oil along the length of the ways (see **Figure 36**). Move the fence back and forth to distribute the oil.

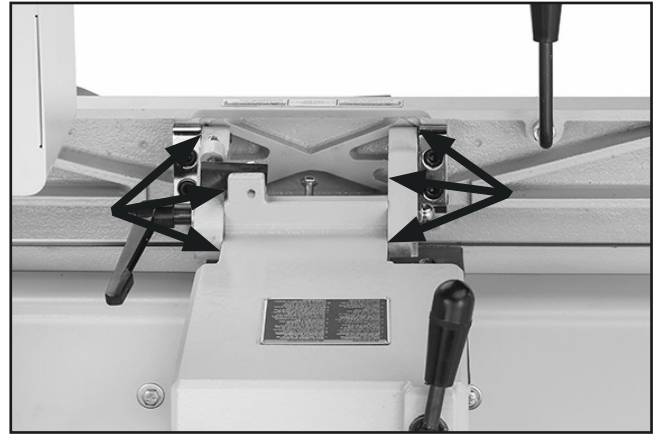


Figure 35. Fence lubrication locations.

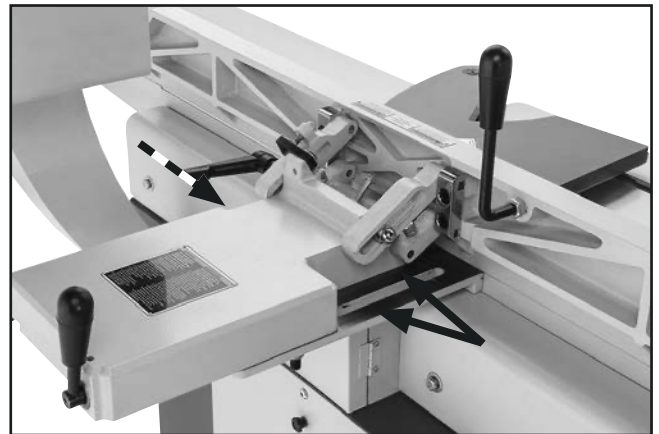
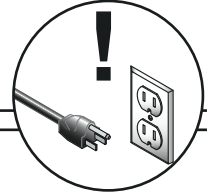


Figure 36. Fence carriage slide lubrication locations.

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 power-supply fuse/breaker trips immediately after startup.	<ol style="list-style-type: none"> OFF button depressed/at fault. Incorrect power supply voltage or circuit size. Power supply circuit breaker tripped/fuse blown. Thermal overload relay has tripped. Motor wires connected incorrectly. Wiring open/has high resistance. ON button at fault. Start capacitor at fault. Contactors not energized/has poor contacts. Centrifugal switch at fault. Motor at fault. 	<ol style="list-style-type: none"> Rotate OFF button head to reset. Replace if at fault. Ensure correct power supply voltage and circuit size. Ensure circuit is sized correctly and free of shorts. Reset circuit breaker or replace fuse. Reset; adjust trip load dial if necessary; replace. Correct motor wiring connections. Check/fix broken, disconnected, or corroded wires. Replace ON button. Test/replace if at fault. Test all legs for power; replace. Adjust centrifugal switch/contact points; replace if necessary. Test/repair/replace.
Machine stalls or is underpowered.	<ol style="list-style-type: none"> Workpiece material not suitable. Feed rate too fast. Excessive depth of cut. Dull inserts. Belts slipping or pulleys misaligned. Dust collection blockage. Motor overheated Pulley slipping on shaft. Run capacitor at fault. Contactors not energized/has poor contacts. Motor bearings at fault. 	<ol style="list-style-type: none"> Ensure workpiece is suitable for jointing Reduce feed rate. Reduce depth of cut. Rotate/replace inserts Tension/replace belts ensure pulleys are aligned Clear blockages, seal leaks, use smooth wall duct, eliminate bends, close other branches. Clean motor, let cool, and reduce workload. Tighten/replace loose pulley/shaft replace shaft key; tighten pulley set screw. Test/repair/replace. Test all legs for power; replace. Test/repair/replace.
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> Motor or component loose. Belts worn or loose. Motor fan rubbing on fan cover. Pulley loose. Dull inserts. Machine incorrectly resting on floor. Cutterhead bearings at fault. 	<ol style="list-style-type: none"> Inspect/replace damaged bolts/nuts, and re-tighten with thread-locking fluid. Inspect/tension or replace belts Fix/replace fan cover; replace loose/damaged fan. Re-align/replace shaft, pulley, set screw, and key Relocate/shim machine. Rotate/replace inserts Relocate/shim machine. Replace bearings/re-align cutterhead.

Operations

Symptom	Possible Cause	Possible Solution
Tables are hard to adjust.	<ol style="list-style-type: none"> 1. Table lock is engaged/partially engaged. 2. Table stop bolts blocking movement. 	<ol style="list-style-type: none"> 1. Completely loosen table locks 2. Loosen/reset table stop bolts
Excessive snipe (gouge in end of board that is uneven with rest of cut).	<ol style="list-style-type: none"> 1. Outfeed table is set too low. 2. Operator pushing down too much on trailing end (infeed side) of workpiece as it leaves cutterhead. 	<ol style="list-style-type: none"> 1. Align outfeed table with cutterhead inserts at top dead center 2. Focus pressure against outfeed table while cutting, but avoid excessive pressure against trailing end of workpiece.
Workpiece stops in middle of cut.	<ol style="list-style-type: none"> 1. Outfeed table set too high. 	<ol style="list-style-type: none"> 1. Align outfeed table with cutterhead inserts at top dead center
Workpiece chipping, tear-out, indentations, or overall rough cuts.	<ol style="list-style-type: none"> 1. Workpiece not suitable for jointing. 2. Operator not feeding workpiece to cut "with" the grain. 3. Feed rate too fast. 4. Excessive depth of cut. 5. Dull inserts. 6. Dust collection problems. 	<ol style="list-style-type: none"> 1. Ensure workpiece is suitable for jointing 2. Turn the workpiece 180° before feeding again. 3. Reduce feed rate. 4. Reduce depth of cut. 5. Rotate/replace inserts 6. Clear blockages, seal leaks, move machine closer to dust collector, upgrade dust collector.
Fuzzy grain left in workpiece.	<ol style="list-style-type: none"> 1. Wood has high moisture content. 2. Dull inserts. 	<ol style="list-style-type: none"> 1. Ensure wood moisture content is less than 20%. Allow to dry if necessary. 2. Rotate/replace inserts
Long lines or ridges that run along the length of the board.	<ol style="list-style-type: none"> 1. Nicked or chipped inserts. 2. Loose or incorrectly installed insert(s). 3. Dirt or debris under inserts. 	<ol style="list-style-type: none"> 1. Rotate/replace inserts 2. Remove/replace insert(s) and install properly 3. Remove inserts, properly clean mounting pocket and re-install
Uneven cutter marks, wavy surface, or chatter marks across face of workpiece.	<ol style="list-style-type: none"> 1. Excessive feed rate. 2. Inserts not consistently tightened/torqued. 3. Dirt or debris under inserts. 	<ol style="list-style-type: none"> 1. Reduce feed rate. 2. Tighten/torque all inserts consistently when securing 3. Remove inserts, properly clean mounting pocket and re-install
Glossy surface; scorching or burn marks on workpiece.	<ol style="list-style-type: none"> 1. Dull inserts. 2. Feed rate too slow. 	<ol style="list-style-type: none"> 1. Rotate/replace inserts 2. Increase feed rate.
Workpiece is concave or convex along its length after jointing.	<ol style="list-style-type: none"> 1. Workpiece not fed with even pressure against outfeed table during cut. 2. Tables are not parallel with cutterhead and each other. 3. Workpiece excessively bowed or warped, not suitable for jointing. 	<ol style="list-style-type: none"> 1. Apply even downward pressure against workpiece throughout entire travel along outfeed side during cut. 2. Check/adjust table parallelism 3. Ensure workpiece is suitable for jointing
Workpiece edges not square; tapered cut produced.	<ol style="list-style-type: none"> 1. Fence not square to table(s); fence tilt unlocked. 2. Warped infeed or outfeed table. 3. Inserts not consistently tightened/torqued. 	<ol style="list-style-type: none"> 1. Square fence to table(s) ; lock fence. 2. Regrind/replace table. 3. Tighten/torque all inserts consistently when securing

Rotating/Replacing Cutterhead Inserts

The spiral cutterhead is equipped with 4-sided indexable carbide inserts. Each insert can be removed, rotated, and re-installed to use any one of its four cutting edges. Therefore, if one cutting edge becomes dull or damaged, simply rotate it 90° (as shown below) to use a sharp cutting edge.

The inserts have a reference dot on one corner. The position of the reference dot on installed inserts can be used to track which edges are sharp/unused and which edges are dull or damaged. Replace inserts once the reference dot has been rotated back to its original position.

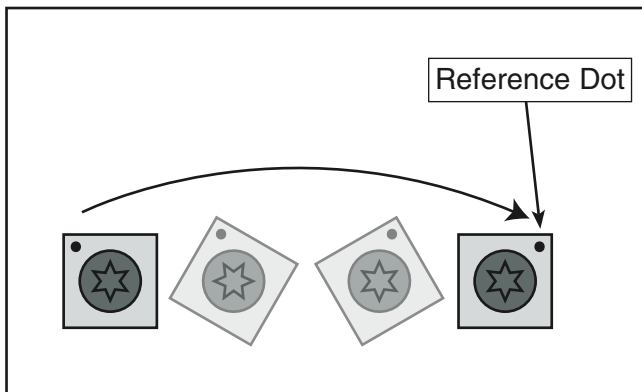


Figure 37. Insert rotating sequence.

Items Needed	Qty
Phillips Screwdriver #2	1
Torque Wrench	1
T-20 Torx Bit	1
Precision Straightedge	1

To rotate or replace spiral cutterhead insert:

1. DISCONNECT MACHINE FROM POWER!
2. Remove cutterhead guard from table, and lower infeed table as far down as it will go.
3. Remove cover to get access to cutterhead pulley.
4. Taking care not to pinch your hand between belt and pulley, rotate pulley as needed to make inserts accessible for removal.

5. Put on heavy leather gloves to protect fingers and hands.
6. Carefully clean away all sawdust or debris from top of insert, Torx screw, and surrounding area **Figure 38**).

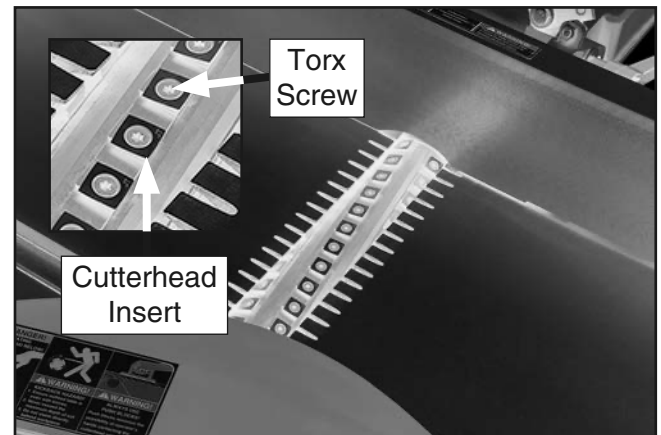


Figure 38. Location of cutterhead inserts and Torx screws.

7. Remove Torx screw and insert, then carefully clean away all dust and debris from insert and insert pocket in cutterhead.

IMPORTANT: This step is critical for achieving a smooth finish with cutting operations. Dirt or dust trapped under insert during installation will slightly raise insert in cutterhead, which will leave marks on workpiece after jointing.

Tip: Use low-pressure compressed air or a vacuum nozzle to clean cutterhead pocket.

8. Re-install insert with a sharp cutting edge facing outward. Make sure insert is properly seated in cutterhead pocket before securing.

—If all four insert cutting edges have been used, replace insert with a new one. Always position reference dot in same position when installing a new insert to aid in rotational sequencing.

9. Lubricate Torx screw threads with a small amount of light machine oil, wipe excess off, and torque screw to 48–50 inch/pounds.

IMPORTANT: If too much oil is applied to the threads, excess will attempt to squeeze out of threaded hole as you install insert and force it

Tensioning/ Replacing V-Belts

V-belts transfer power from motor to cutterhead. To ensure efficient transfer of power to cutterhead, make sure V-belts are always properly tensioned and in good condition.

NOTICE

After approximately 16 hours of operation, V-belts will stretch and seat into pulley grooves. The V-belts need to be re-tensioned after this initial break-in period to ensure optimum power transfer and maximum overall life of the V-belts.

If the V-belts are worn, cracked, or damaged, replace them. Always replace the V-belts with a matched set, or belt tension may not be even among both belts, resulting in sub-optimal power transfer and premature belt failure.

Tensioning V-Belts

Items Needed	Qty
Hex Wrench 5mm.....	1
Wrench or Socket 19mm.....	1

CAUTION

V-belts and pulleys will be hot after operation. Allow them to cool before handling.

1. DISCONNECT MACHINE FROM POWER!
2. Remove rear access panel and open cutterhead pulley cover (see **Figure 39**).



Figure 39. Location of rear access panel.

3. Check belt tension: Each belt is correctly tensioned when there is approximately 1/4" deflection when it is pushed with moderate pressure, as shown in **Figure 40**.

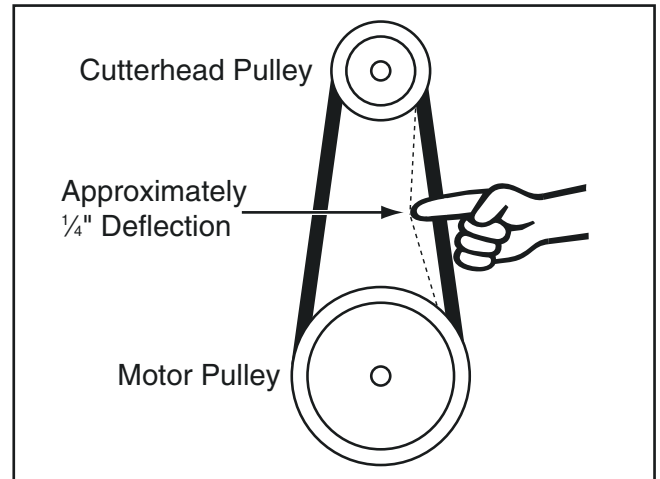


Figure 40. Correct belt deflection when properly tensioned.

- If there *is* approximately 1/4" deflection when V-belts are pushed with moderate pressure, V-belts are properly tensioned and no adjustment is necessary. Proceed to **Step 6**.
- If there is *not* approximately 1/4" deflection when V-belts are pushed with moderate pressure, V-belts are not properly tensioned. Proceed to **Step 4**.

4. Loosen hex nuts on motor tension rods (see **Figure 41**).

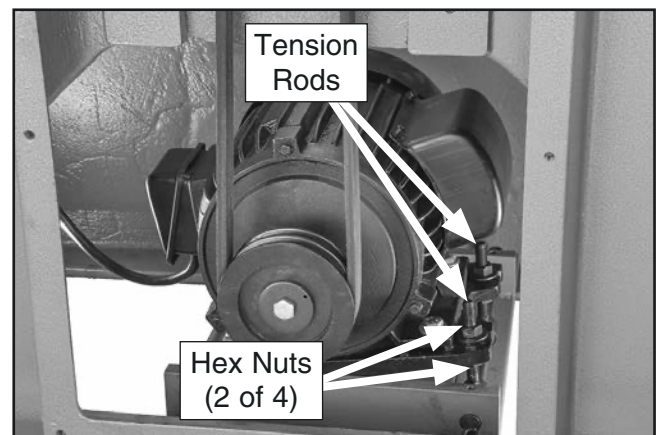


Figure 41. Location of motor tension rods and hex nuts.

- Press down on motor until there is proper tension on V-belts. While holding motor down, tighten hex nuts on tension rods
- Replace rear access panel and close cutterhead pulley cover.

Replacing V-Belts

Items Needed	Qty
New V-Belts.....	2
Hex Wrench 5mm.....	1
Wrench or Socket 19mm.....	1

⚠ CAUTION

V-belts and pulleys will be hot after operation. Allow them to cool before handling.

- DISCONNECT MACHINE FROM POWER!
- Remove rear access panel and open cutterhead pulley cover.
- Loosen hex nuts on motor tension rods
- Have another person lift motor as you remove belts and replace them with new ones. It may help to use a 2x4 as a lever to raise motor. Make sure ribs of belt are seated in pulley grooves.
- Press down on motor until there is proper tension on V-belts. While holding motor down, tighten hex nuts on tension rods
- Check belt tension
- Replace rear access motor cover and close cutterhead pulley cover.

Checking/Adjusting Pulley Alignment

Proper pulley alignment is important for optimum power transfer and belt life. Pulley alignment is adjusted by slightly repositioning the motor on the motor mounting plate.

Items Needed	Qty
Hex Wrench 5mm.....	1
Wrench or Socket 19mm.....	1

To check and align pulleys:

- DISCONNECT MACHINE FROM POWER!
- Remove rear access panel and open pulley cover.
- Visually check alignment of both pulleys to make sure they are aligned and V-belts are straight up and down,

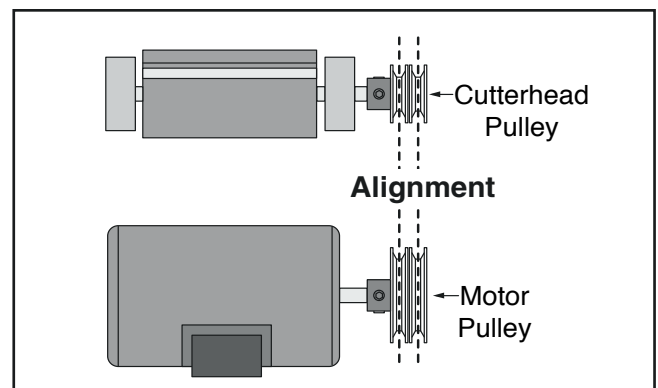


Figure 42. Pulleys aligned.

- If pulleys *are* aligned, no adjustment is necessary.
- If pulleys *are not* aligned, proceed to **Step 4**.

- Loosen hex nuts on motor tension rods (see **Figure 43**).

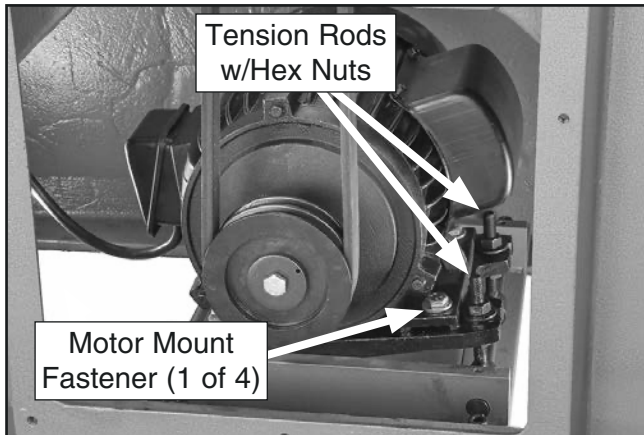


Figure 43. Location of motor tension rods, hex nuts, and motor mount fasteners.

- Loosen motor mount fasteners (see **Figure 43**).
- Position motor as needed to align motor pulley with cutterhead pulley.
- Tighten motor mount fasteners. V-belts should be parallel and aligned, as illustrated in **Figure 42**
- Press down on motor until there is proper tension on V-belts. While holding motor down, tighten hex nuts on tension rods (see **Figure 43**).
- Check belt tension (refer to **Step 3** of **Tensioning V-Belts**)
- Replace rear access motor cover and close cutterhead pulley cover.

Setting Outfeed Table Height

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.

Items Needed	Qty
Open-End Wrench 17mm.....	1
Precision Straightedge	1

To set outfeed table height:

- DISCONNECT MACHINE FROM POWER!
- Remove cutterhead guard and fence assembly.
- Loosen outfeed table lock and positive stop bolt jam nut (see **Figure 44**).

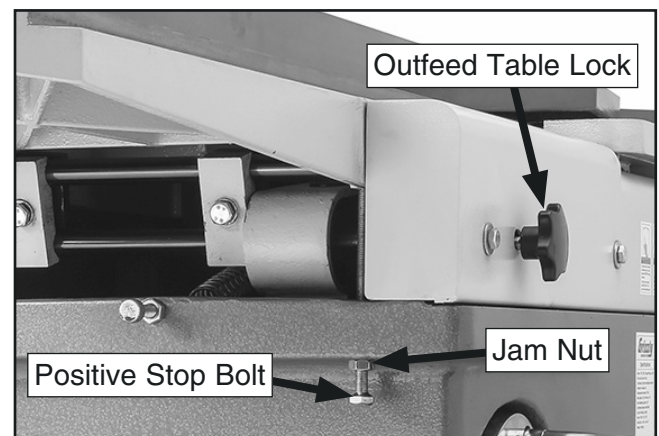


Figure 44. Location of outfeed table lock, positive stop bolt, and jam nut.

Calibrating Depth-of-Cut Scale

- Open cutterhead pulley cover and rotate cutterhead pulley until one cutterhead insert is at top dead center (its highest point during rotation), as shown in **Figure 45**.

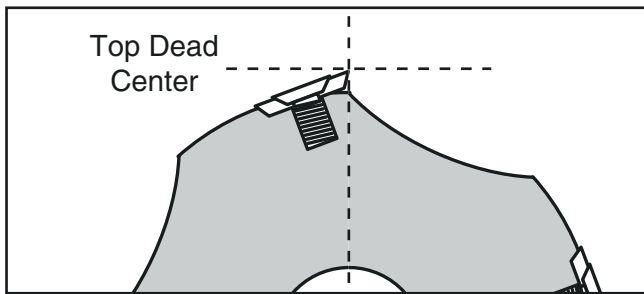


Figure 45. Cutterhead insert at top dead center.

- Place straightedge over center of outfeed table so it hangs over cutterhead.

When correctly set, cutterhead insert will barely touch straightedge when cutterhead is rotated back and forth with pulley, as shown in **Figure 46**.

- If your outfeed table is correctly set, no adjustments are necessary.
- If cutterhead insert lifts straightedge off the table or it is below straightedge, then outfeed table height must be reset.

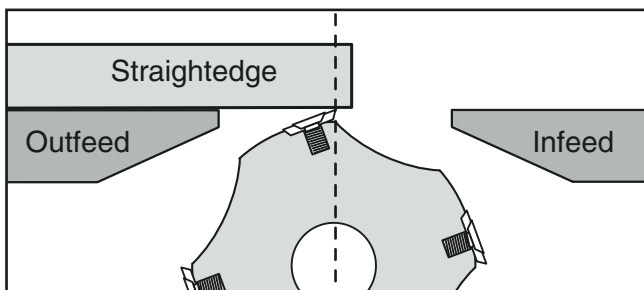


Figure 46. Using straightedge to check outfeed table height.

- Use outfeed table adjustment handwheel to set outfeed table height so cutterhead insert barely touches straightedge, as shown in **Figure 46**.
- Tighten outfeed table lock, and tighten outfeed positive stop bolt and jam nut so outfeed table will not move during operation.
- Re-install cutterhead guard and fence assembly, and close cutterhead pulley cover.

The depth scale can be calibrated or "zeroed" to make sure the cutting depth shown on the scale matches the actual cutting depth (per pass).

Items Needed	Qty
Phillips Screwdriver #2	1
Precision Straightedge	1

To calibrate depth-of-cut scale:

- DISCONNECT MACHINE FROM POWER!
- Perform **Setting Outfeed Table Height**
- Place a straightedge across infeed and outfeed tables.
- Adjust infeed table until even with outfeed table, as shown in **Figure 47**.

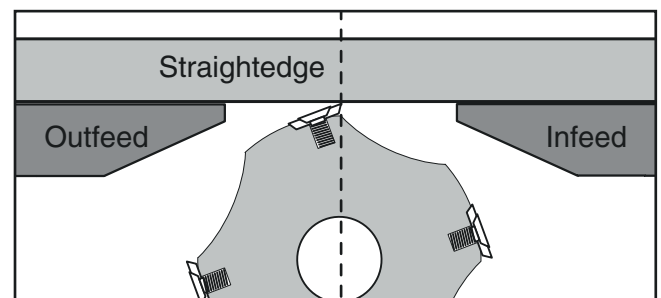


Figure 47. Infeed table even with outfeed table.

- Precisely adjust scale pointer to "0", as shown in **Figure 48**.

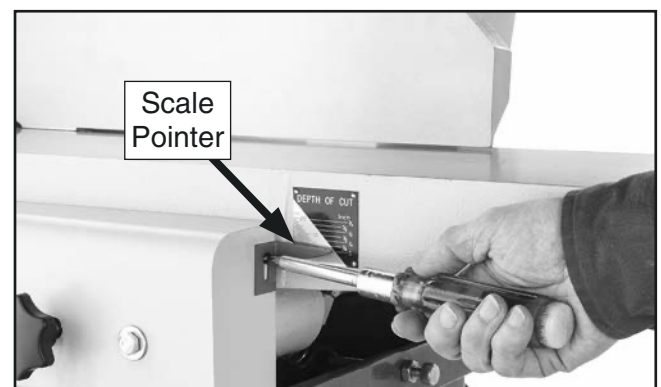


Figure 48. Adjusting scale pointer to "0".

Checking/Adjusting Table Parallelism

If the tables are not parallel with the cutterhead or each other, then poor cutting results and kickback can occur.

Items Needed	Qty
Additional Person	1
Adjustable Spanner Wrench.....	1
Small Hammer.....	1
Center Punch.....	1
Wrench or Socket 14mm	1
Hex Wrench 5mm.....	1
Hex Wrench 4mm.....	1
Precision Straightedge	1

Checking Outfeed Table

1. DISCONNECT MACHINE FROM POWER!
2. Remove cutterhead guard, and with help from an additional person, remove fence assembly.
3. Loosen outfeed table lock and positive stop bolt jam nut (see **Figure 49**).

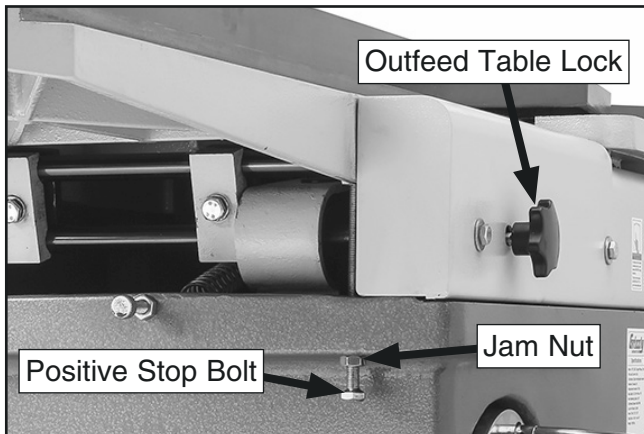


Figure 49. Location of outfeed table lock, positive stop bolt, and jam nut.

4. Place straightedge on outfeed table so it hangs over cutterhead, rotate motor pulley so straightedge is between inserts, then lower outfeed table until straightedge just touches cutterhead body, as shown in **Figure 50**.

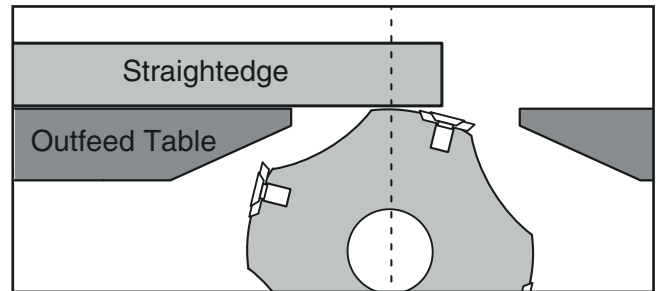


Figure 50. Adjusting outfeed table even with cutterhead body.

5. Place straightedge in positions shown in **Figure 51**. In each position, straightedge should touch cutterhead and sit flat on outfeed table.

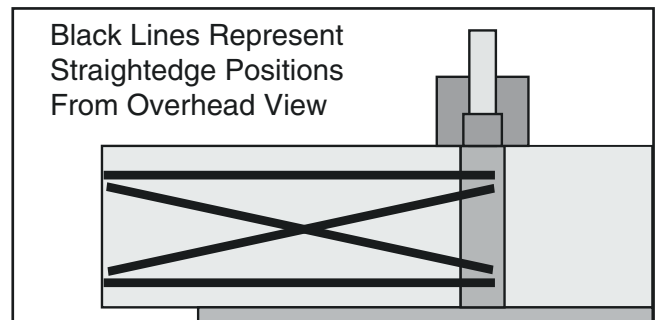


Figure 51. Straightedge positions for verifying if outfeed table is parallel with cutterhead.

- If straightedge touches cutterhead body and sits flat across outfeed table in each position, then outfeed table is already parallel with cutterhead. Perform **Checking Infeed Table**
- If straightedge *does not* touch cutterhead and sit flat on outfeed table in any of the positions, then outfeed table is *not* parallel with cutterhead. Perform **Adjusting Table Parallelism**

Checking Infeed Table

1. DISCONNECT MACHINE FROM POWER!
2. Complete all steps in **Checking Outfeed Table**
3. Perform **Setting Outfeed Table Height**
4. Rotate cutterhead so inserts will not interfere, then place straightedge across infeed and outfeed tables, and adjust infeed table so it is even with the outfeed table, as shown in **Figure 52**.

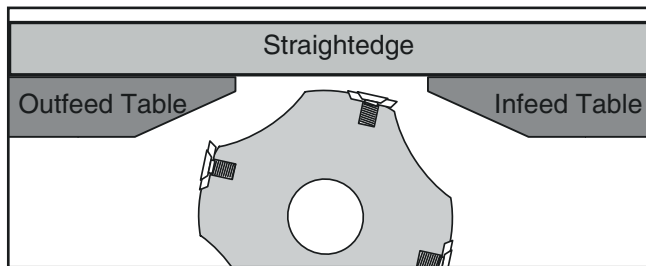


Figure 52. Infeed and outfeed tables set evenly.

5. Place straightedge in positions shown in **Figure 53**. In each position, straightedge should sit flat against both outfeed table and infeed table.

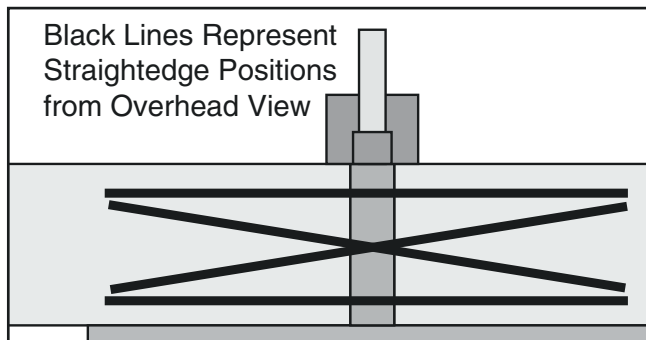


Figure 53. Straightedge positions for checking infeed/outfeed table parallelism.

- If straightedge sits flat against infeed and outfeed tables, then tables are parallel. Replace cutterhead guard and fence assembly, and close cutterhead pulley cover.
- If straightedge *does not* sit flat against infeed and outfeed tables in any of the positions, perform **Adjusting Table Parallelism**

Adjusting Table Parallelism

For safe and proper cutting results, tables must be parallel to cutterhead. Adjusting them to be parallel is a task of precision and patience, and may take up to one hour to complete. Luckily, this is considered a permanent adjustment and should not need to be repeated for the life of the machine.

Due to the complex nature of this task, we recommend that you double check the current table positions to make sure that they really need to be adjusted before starting.

Each table has four eccentric bushings that sit on top of the base and underneath the table that allow the table to be adjusted parallel. These eccentric bushings are locked in place by shaft collars with set screws and adjust when these shaft collars are removed.

The correct order for adjusting the table parallelism is to first adjust the outfeed table parallel with the cutterhead, then adjust the infeed table parallel with the outfeed table.

When setting the outfeed table, all measurements **MUST** be made from the cutterhead body—not the inserts or the results may be skewed.

IMPORTANT: *The following steps are intended to be performed directly after the steps involved in checking outfeed and infeed table parallelism. DO NOT continue until you have performed those steps.*

To adjust table parallelism:

1. DISCONNECT MACHINE FROM POWER!
2. Complete all steps in **Checking Outfeed Table** and **Checking Infeed Table**
3. Remove cutterhead guard lock and table locks. (Cutterhead guard and fence assembly should already be removed.)

- Remove front and rear table covers to expose eccentric bushings, as shown in **Figures 54–55**.

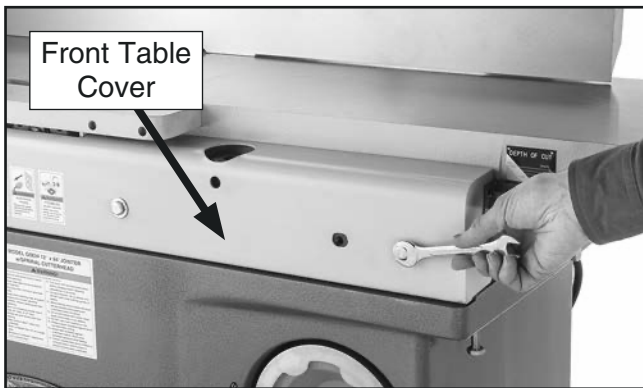


Figure 54. Removing front table cover.

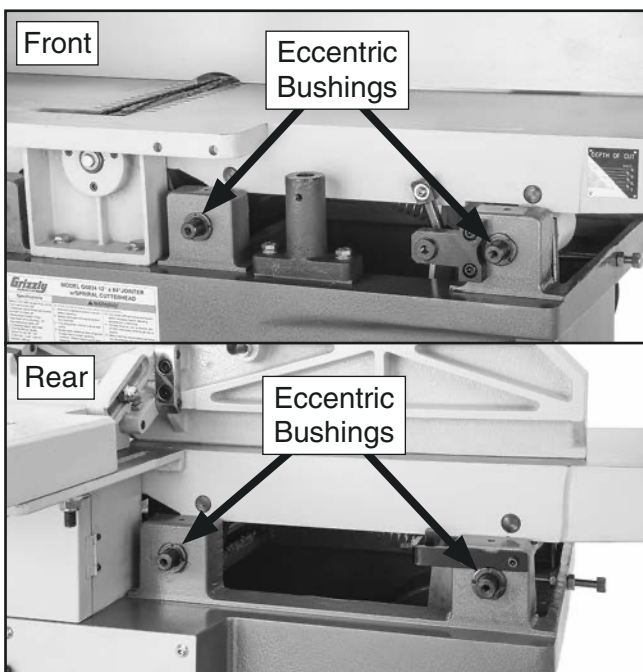


Figure 55. Locations of front and rear eccentric bushings.

- Loosen set screw on each eccentric bushing (see **Figure 56**).

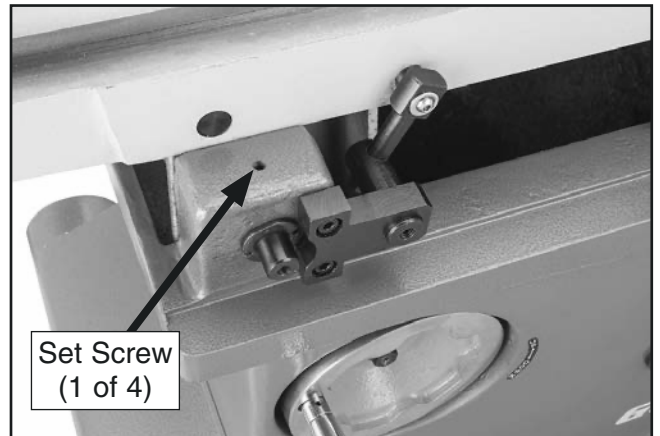


Figure 56. Location of eccentric bushing set screw.

- Place straightedge on outfeed table so it hangs over cutterhead, rotate motor pulley so straightedge is between inserts, then lower outfeed table until straightedge just touches cutterhead body, as shown in **Figure 57**.

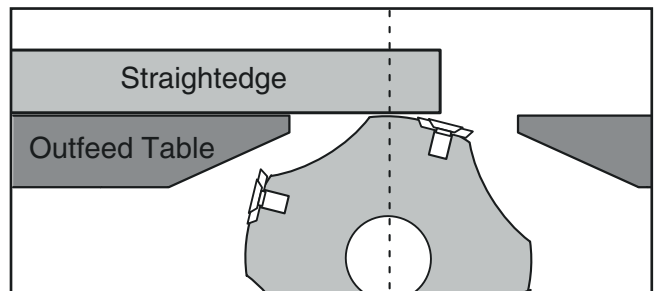


Figure 57. Adjusting outfeed table even with cutterhead body.

- Place straightedge in each position shown in **Figure 58**, and adjust eccentric bushings under outfeed table so straightedge touches cutterhead body while lying flat across outfeed table.

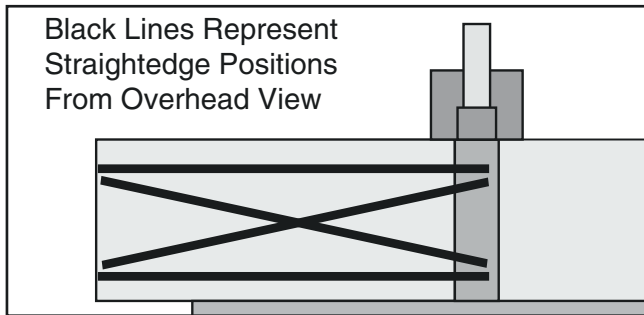


Figure 58. Straightedge positions for verifying if outfeed table is parallel with cutterhead.

- Repeat **Step 7** as many times as necessary until outfeed table is parallel with cutterhead.
- Tighten set screws on each eccentric bushing on outfeed table.
- Place straightedge halfway across infeed and outfeed table, and adjust infeed table even with outfeed table, as shown in **Figure 59**.

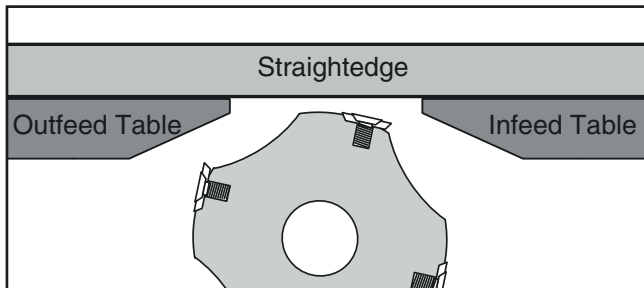


Figure 59. Infeed and outfeed tables set evenly.

- Place straightedge in each position shown in **Figure 60**, and adjust eccentric bushings under infeed table so straightedge lies flat against both tables.

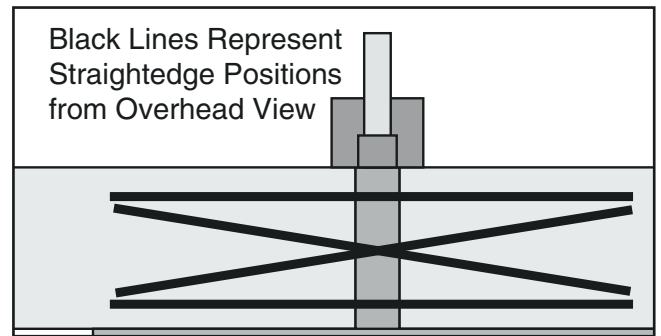


Figure 60. Straightedge positions for checking infeed/outfeed table parallelism.

- Repeat **Step 10** as many times as necessary until infeed table is parallel with outfeed table.
- Tighten set screws on each eccentric bushing on infeed table.
- Re-install front and rear table covers, table locks, and cutterhead lock, and close cutterhead pulley cover.
- Perform **Setting Outfeed Table Height** on **Page 37**.

Setting Fence Stops

The fence stops simplify the task of adjusting the fence to 45° inward, 90°, and 45° outward (135°).

Items Needed	Qty
Open-End Wrench 14mm.....	1
90° Square	1
Sliding Bevel.....	1

Setting 45° Inward

1. DISCONNECT MACHINE FROM POWER!
2. Loosen fence tilt lock, rotate stop block upward, and position fence approximately 45° inward onto positive stop bolt (see **Figure 61**).

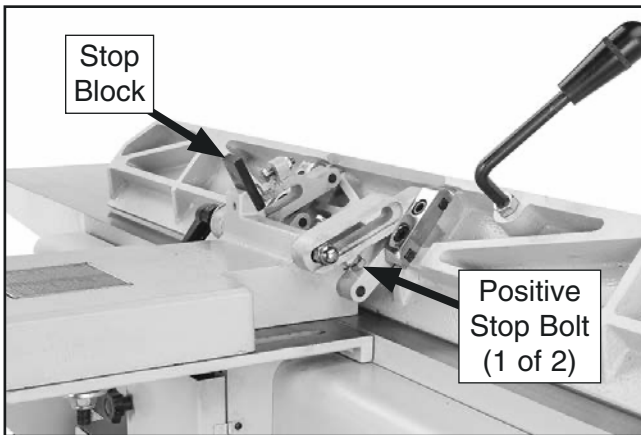


Figure 61. Fence set to 45° inward.

3. Place sliding bevel set to 45° inward against fence and table, as shown in **Figure 62**.



Figure 62. Adjusting fence to 45° inward.

4. Loosen jam nut on 45° inward positive stop bolt and adjust stop bolt until fence is exactly 45° inward while resting on bolt .
5. Verify angle with sliding bevel set to 45° inward, as shown in **Figure 62**, then retighten jam nut.

Setting 45° Inward

1. DISCONNECT MACHINE FROM POWER!
2. Loosen fence tilt lock, rotate stop block down, and position fence approximately 90° onto positive stop bolt (see **Figure 63**).

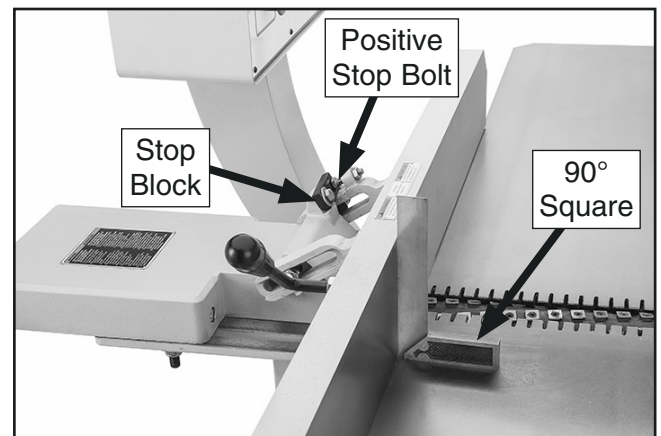


Figure 63. Adjusting fence to 90°.

3. Place 90° square against fence and table.
4. Loosen jam nut on 90° positive stop bolt and adjust stop bolt until fence is exactly 90° while resting on bolt.
5. Verify angle with 90° square, as shown in **Figure 63**, then retighten jam nut.

Setting 45° Outward (135°)

1. DISCONNECT MACHINE FROM POWER!
2. Loosen fence tilt lock, rotate stop block up, and position fence approximately 45° outward (135°) onto positive stop bolt (see **Figure 64**).

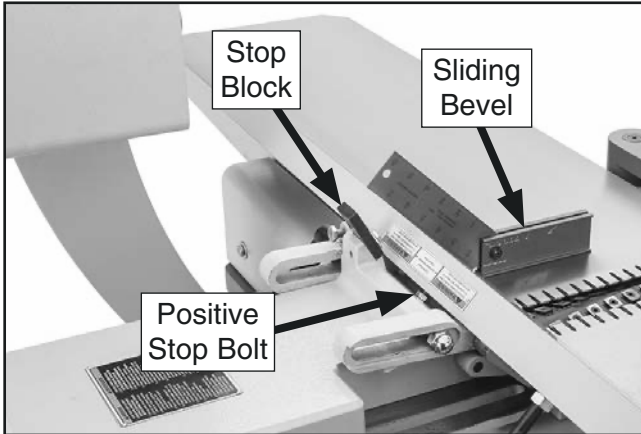


Figure 64. Adjusting fence 45° outward (135°).

3. Place sliding bevel set to 45° outward (135°) against fence and table.
4. Loosen jam nut on 45° outward (135°) positive stop bolt and adjust stop bolt until fence is exactly 45° outward (135°) while resting on bolt.
5. Verify angle with sliding bevel set to 45° outward (135°), as shown in **Figure 64**, then retighten jam nut.

Adjusting Cutterhead Guard Tension

⚠ WARNING

The cutterhead guard is a critical safety feature of this jointer. You **MUST** install and verify its operation before using the jointer! Failure to properly install this guard will greatly increase the risk of serious personal injury.

To adjust cutterhead guard tension:

1. DISCONNECT MACHINE FROM POWER!
2. Loosen lock knob (see **Figure 65**) that secures cutterhead guard shaft.

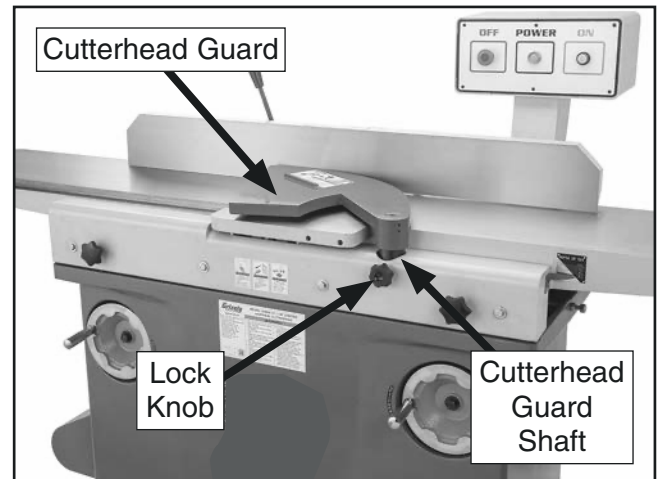
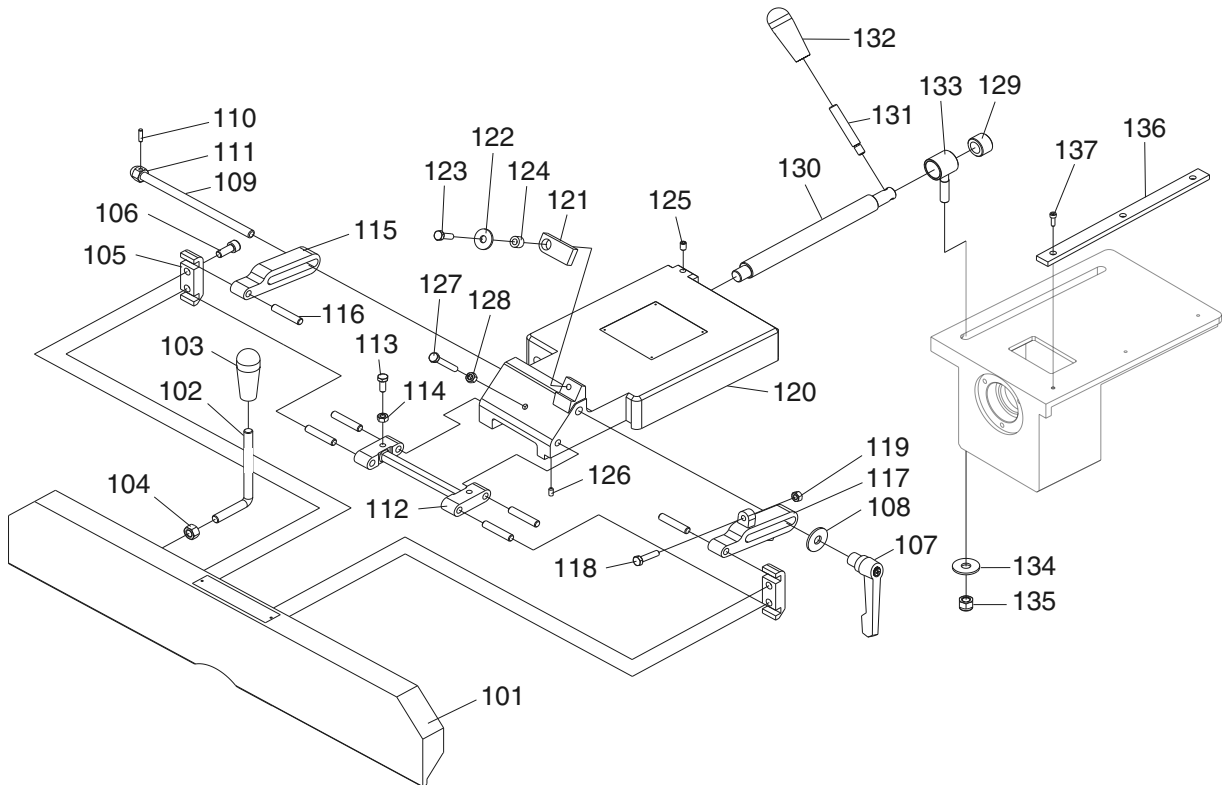


Figure 65. Cutterhead guard lock knob location.

3. Make sure fence is out of way, then pull cutterhead guard back and let it go. It should spring back over cutterhead.
 - If cutterhead guard does not return swiftly toward fence, loosen lock knob, lift guard so shaft clears hole, rotate guard clockwise, then re-install it and lock it in place.
4. Re-test and, if necessary, repeat **Step 3** until cutterhead guard has correct tension.

SECTION 9: PARTS

Fence



REF DESCRIPTION

101	FENCE
102	ANGLE STUD 32MM X 82MM
103	TAPERED HANDLE M12-1.75
104	HEX NUT M12-1.75
105	CLAMP
106	CAP SCREW M10-1.5 X 25
107	ADJUSTABLE HANDLE 110L, M10-1.5
108	FLAT WASHER 35MM
109	STUD-DE M12 X 1.75
110	ROLL PIN 5 X 20
111	HEX NUT M12-1.75
112	SUPPORT BRACKET
113	HEX BOLT M8-1.25 X 20
114	HEX NUT M8-1.25
115	BRACKET (LEFT)
116	ROLL PIN 10 X 52
117	BRACKET (RIGHT)
118	HEX BOLT M8-1.25 X 35
119	HEX NUT M8-1.25

REF DESCRIPTION

120	FENCE CARRIAGE
121	STOP BLOCK
122	FLAT WASHER 8MM
123	HEX BOLT M8-1.25 X 25
124	BUSHING 8.5MM X 12MM
125	SET SCREW M8-1.25 X 12
126	SET SCREW M6-1 X 12
127	HEX BOLT M8-1.25 X 55
128	HEX NUT M8-1.25
129	COLLAR
130	ECCENTRIC SHAFT
131	STUD-UDE M12-1.75 X 20, M10-1.5 X 15, 80L
132	TAPERED HANDLE M12-1.75
133	SLIDING BUSHING
134	FLAT WASHER 12MM
135	LOCK NUT M12-1.75
136	FENCE KEY
137	CAP SCREW M5-8 X 14

Table

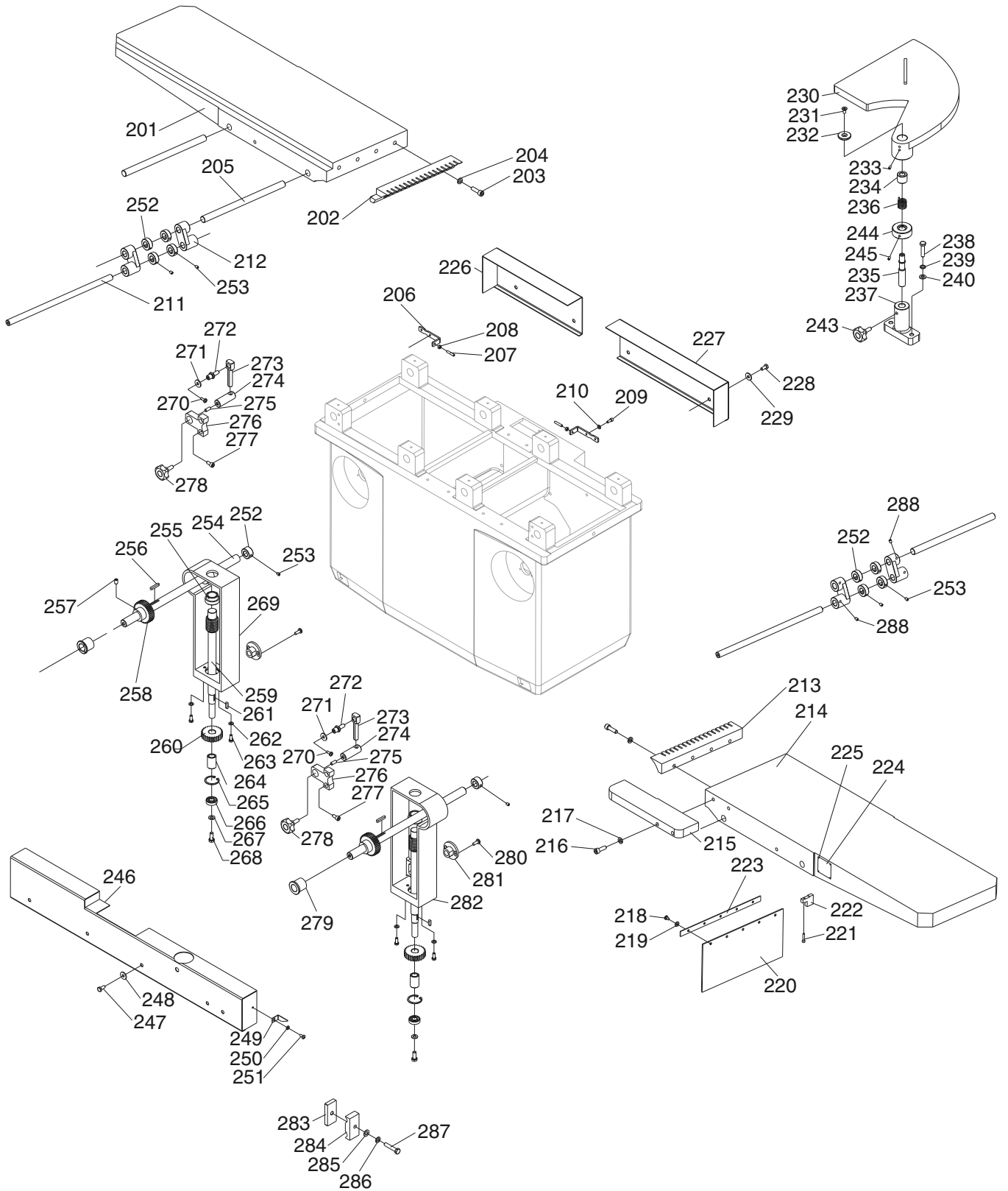
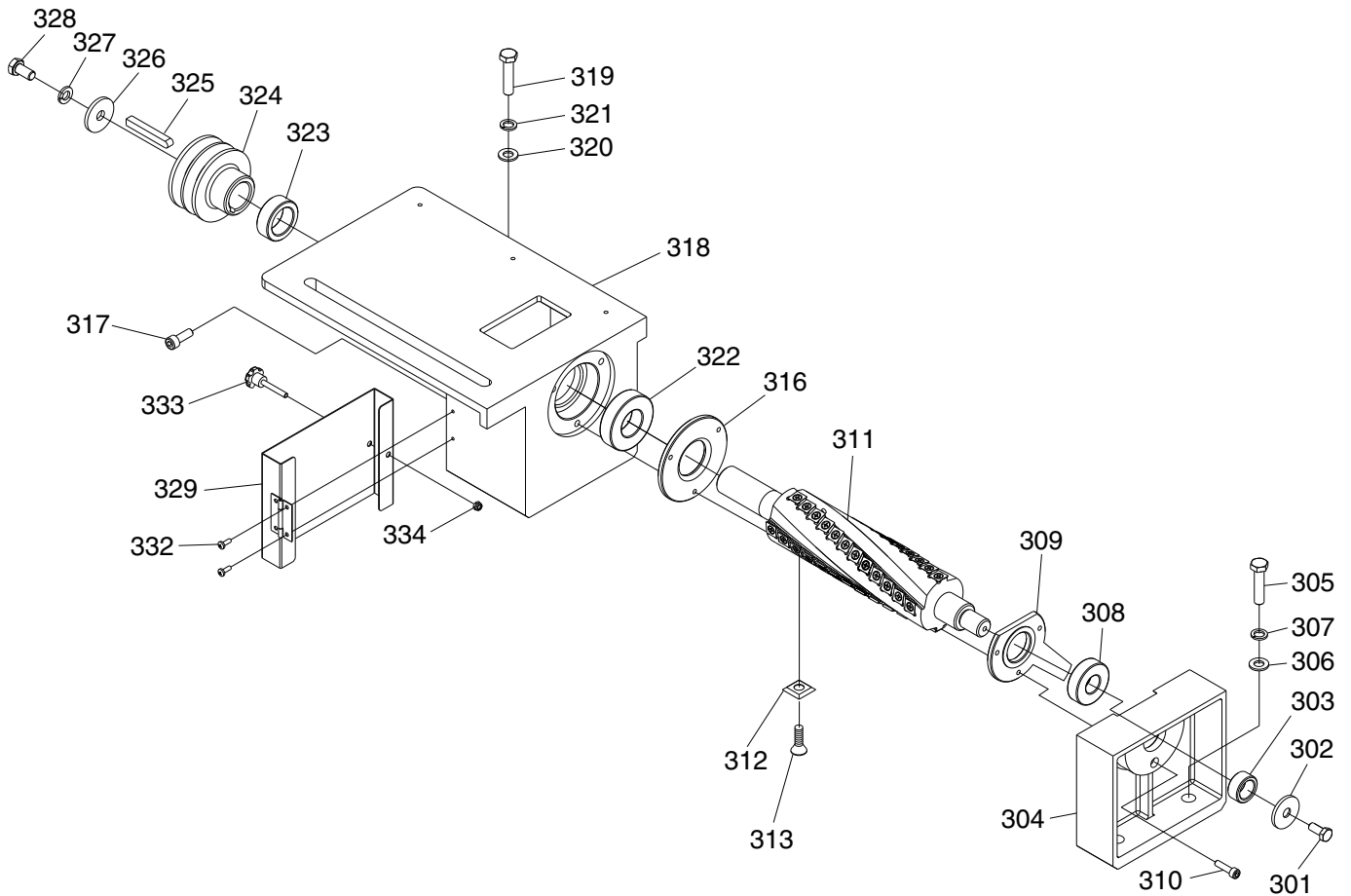


Table Parts List

REF	DESCRIPTION
201	OUTFEED TABLE
202	OUTFEED TABLE LIP
203	CAP SCREW M10-1.5 X 35
204	LOCK WASHER 10MM
205	TABLE SPINDLE 20 X 330MM
206	STOP PLATE
207	SET SCREW M8-1.25 X 25
208	HEX NUT M8-1.25
209	CAP SCREW M6-1 X 16
210	FLAT WASHER 6MM
211	TABLE HEIGHT SPINDLE 20 X 470MM
212	SMALL TABLE SUPPORT
213	INFEED TABLE LIP
214	INFEED TABLE
215	RABBETING ARM
216	CAP SCREW M10-1.5 X 30
217	LOCK WASHER 10MM
218	CAP SCREW M6-1 X 10
219	FLAT WASHER 6MM
220	DUST DEFLECTOR
221	CAP SCREW M5-.8 X 25
222	STOP BLOCK
223	MOUNTING BAR
224	DEPTH OF CUT SCALE
225	NAMEPLATE RIVET 2 X 4
226	OUTFEED TABLE REAR COVER
227	INFEED TABLE REAR COVER
228	HEX BOLT M8-1.25 X 12
229	FLAT WASHER 8MM
230	CUTTERHEAD GUARD
231	FLAT HD SCR M8-1.25 X 16
232	GUARD WASHER 15MM
233	SET SCREW M6-1 X 12
234	ADAPTER BUSHING
235	SHAFT
236	TORSION SPRING
237	GUARD MOUNT
238	CAP SCREW M10-1.5 X 35
239	FLAT WASHER 10MM
240	LOCK WASHER 10MM
243	KNOB M10-1.5 X 25 6-LOBE
244	SHAFT COLLAR
245	SET SCREW M6-1 X 12

REF	DESCRIPTION
246	FRONT TABLE COVER
247	HEX BOLT M8-1.25 X 12
248	FLAT WASHER 8MM
249	POINTER
250	FLAT WASHER 6MM
251	PHLP HD SCR M6-1 X 12
252	SLIDE STOP BLOCK 20 x 35
253	SET SCREW M6-1 X 12
254	SHAFT GEAR
255	STOP BLOCK
256	KEY 5 X 5 X 30
257	SET SCREW M8-1.25 X 10
258	WORM GEAR 46T
259	DOUBLE-END WORM GEAR
260	GEAR 24T
261	KEY 4 X 4 X 16
262	FLAT WASHER 6MM
263	HEX BOLT M6-1 X 12
264	BUSHING
265	INT RETAINING RING 35MM
266	BALL BEARING 6202ZZ
267	FLAT WASHER 8MM
268	HEX BOLT M8-1.25 X 12
269	WORM GEAR HOUSING (LEFT)
270	CAP SCREW M6-1 X 10
271	FLAT WASHER 6MM
272	SHOULDER SCREW M10-1.5 X 25
273	TABLE LOCK ROD SHAFT
274	TABLE LOCK ROD BLOCK
275	ROLL PIN 8 X 40
276	TABLE LOCK HOUSING
277	CAP SCREW M8-1.25 X 25
278	KNOB M10-1.5 X 16 6-LOBE
279	ECCENTRIC BUSHING
280	FLAT HD SCR M16-2 X 1
281	SLIDING STOP BLOCK
282	WORM GEAR HOUSING (RIGHT)
283	CLAMPING BLOCK (OUTER)
284	CLAMP BLOCK (INNER)
285	FLAT WASHER 10MM
286	LOCK WASHER 10MM
287	HEX BOLT M10-1.5 X 50
288	SET SCREW M6-1 X 10

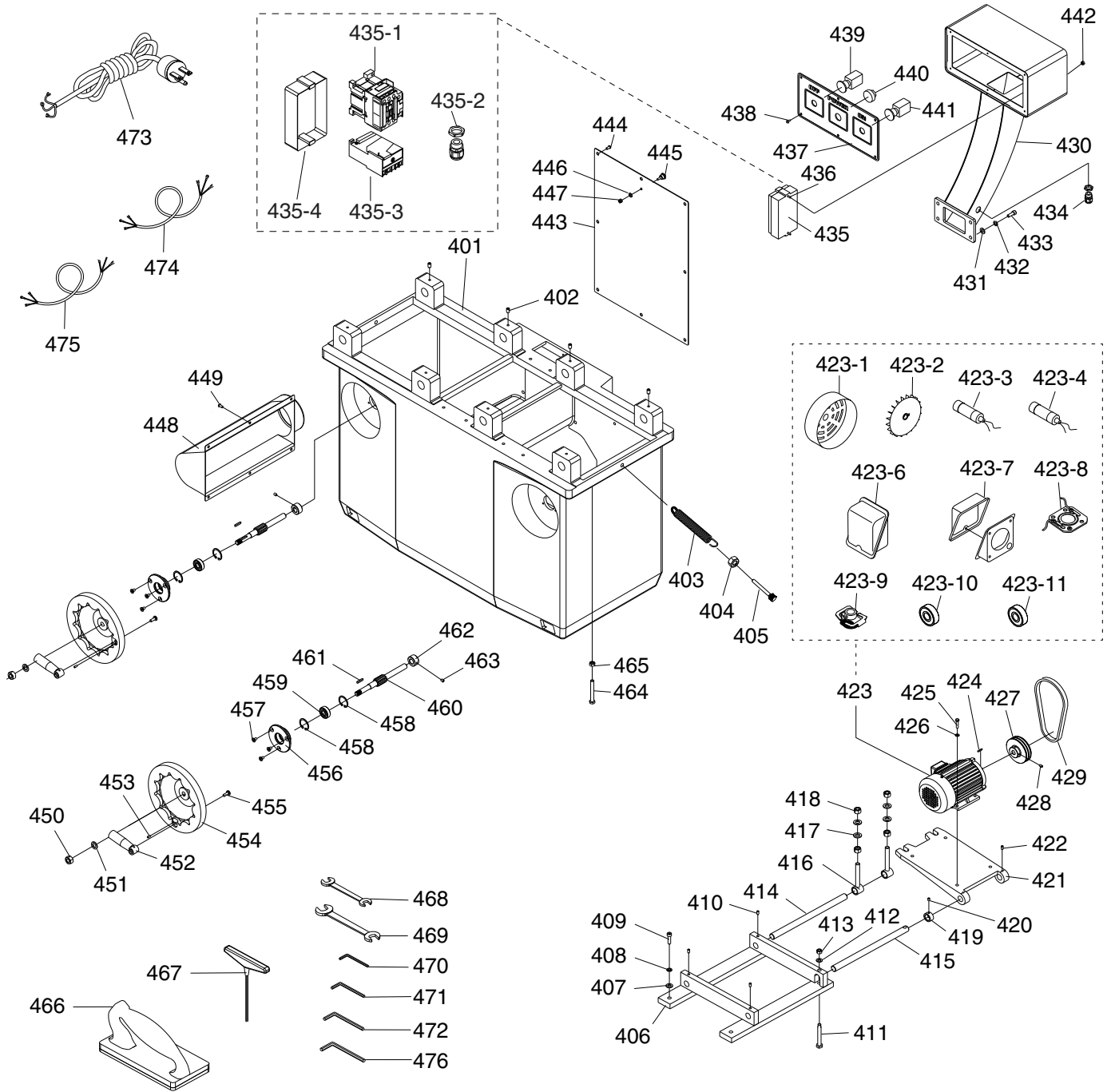
Cutterhead



REF	DESCRIPTION
301	HEX BOLT M8-1.25 X 20
302	FENDER WASHER 8MM
303	FRONT CUTTERHEAD BUSHING
304	FRONT BEARING SUPPORT
305	HEX BOLT M10-1.5 X 35
306	FLAT WASHER 10MM
307	LOCK WASHER 10MM
308	BALL BEARING 6204ZZ
309	FRONT BEARING COVER
310	CAP SCREW M6-1 X 25
311	CUTTERHEAD 12" SPIRAL
312	INDEXABLE INSERT 15 X 15 X 2.5MM
313	FLAT HD TORX T20 M6-1 X 15
316	REAR BEARING SUPPORT
317	CAP SCREW M6-1 X 25

REF	DESCRIPTION
318	CARRIAGE MOUNT
319	HEX BOLT M10-1.5 X 35
320	FLAT WASHER 10MM
321	LOCK WASHER 10MM
322	BALL BEARING 6206ZZ
323	REAR CUTTERHEAD BUSHING
324	CUTTERHEAD PULLEY
325	KEY 8 X 8 X 60
326	FENDER WASHER 10MM
327	LOCK WASHER 10MM
328	HEX BOLT M10-1.5 X 20
329	REAR CUTTERHEAD DOOR
332	TAP SCREW M4 X 10
333	KNOB BOLT M5-.8 X 60
334	LOCK NUT M5-.8

Stand & Tools



Stand & Tools Parts List

REF	DESCRIPTION
401	CABINET
402	SET SCREW M8-1.25 X 12
403	EXTENSION SPRING
404	HEX NUT M10-1.5
405	KNURLED KNOB BOLT M10-1.5 X 48
406	MOTOR BRACKET
407	FLAT WASHER 10MM
408	LOCK WASHER 10MM
409	CAP SCREW M8-1.25 X 12
410	SET SCREW M8-1.25 X 12
411	ELEVATION BOLT M10-1.5 X 80
412	FLAT WASHER 10MM
413	HEX NUT M10-1.5
414	PLATE CONNECTING ROD (LEFT)
415	PLATE CONNECTING ROD (RIGHT)
416	TENSION ROD M12-1.75 X 85
417	FLAT WASHER 12MM
418	HEX NUT M12-1.75
419	COLLAR
420	SET SCREW M6-1 X 8
421	MOTOR MOUNT PLATE
422	SET SCREW M6-1 X 12
423	MOTOR 5HP 240V 1-PH
423-1	MOTOR FAN COVER
423-2	MOTOR FAN
423-3	S CAPACITOR 300UF 300V 2-1/4" X 3-3/4"
423-4	R CAPACITOR 60UF 450V 2-1/4" X 5"
423-6	CAPACITOR BOX
423-7	MOTOR JUNCTION BOX
423-8	CONTACT PLATE
423-9	CENTRIFUGAL SWITCH
423-10	BALL BEARING 6204ZZ
423-11	BALL BEARING 6206ZZ
424	KEY 8 X 8 X 40
425	HEX BOLT M10-1.5 X 30
426	FLAT WASHER 10.5 X 24 X 3
427	MOTOR PULLEY
428	SET SCREW M10-1.5 X 12
429	V-BELT A1194
430	CONTROL PANEL PEDESTAL
431	CAP SCREW M10-1.5 X 25
432	LOCK WASHER 10MM
433	FLAT WASHER 10MM
434	STRAIN RELIEF TYPE-3 M20-1.5
435	MAGNETIC SWITCH

REF	DESCRIPTION
435-1	CONTACTOR NHD C-35D
435-2	STRAIN RELIEF TYPE-3 M16 X 1.5
435-3	OL RELAY NHD NTH-28 24-28A
435-4	MAGNETIC SWITCH BACK COVER
436	PHLP HD SCR M5-.8 X 10
437	CONTROL PANEL FACEPLATE
438	PHLP HD SCR M5-.8 X 10
439	STOP BUTTON NHD NLB22-R
440	POWER LIGHT PEOPLE AD11-25/40
441	START BUTTON NHD NLB22-E
442	ACORN NUT M5-.8
443	REAR ACCESS PANEL
444	BUTTON HD CAP SCR M6-1 X 10
445	KNOB BOLT M5-.8 X 16 5-LOBE
446	FLAT WASHER 6MM
447	HEX NUT M5-.8
448	DUST PORT 5"
449	BUTTON HD CAP SCR M6-1 X 10
450	HEX NUT M12-1.75
451	FLAT WASHER 12MM
452	FOLDING HANDWHEEL HANDLE
453	ROLL PIN 4 X 10
454	HANDWHEEL TYPE-11 184D X 12B X M6
455	FLANGE SCREW M6-1 X 16
456	BEARING SUPPORT
457	FLAT HD SCR M6-1 X 8
458	INT RETAINING RING 35MM
459	BALL BEARING 6201ZZ
460	SPIRAL GEAR SHAFT
461	KEY 4 X 4 X 20
462	LOCK COLLAR 14 X 428 X 15MM
463	SET SCREW M8-1.25 X 8
464	HEX BOLT M10-1.5 X 130
465	HEX NUT M10-1.5
466	PUSH BLOCK
467	T-HANDLE WRENCH 4MM
468	WRENCH 12 X 14 OPEN-ENDS
469	WRENCH 17 X 19 OPEN-ENDS
470	HEX WRENCH 3MM
471	HEX WRENCH 4MM
472	HEX WRENCH 5MM
473	POWER CORD 12G 3W 72" L6-30P
474	CONTROL PANEL CORD 14G 5W 24"
475	MOTOR CORD 12G 3W 48"
476	HEX WRENCH 8MM

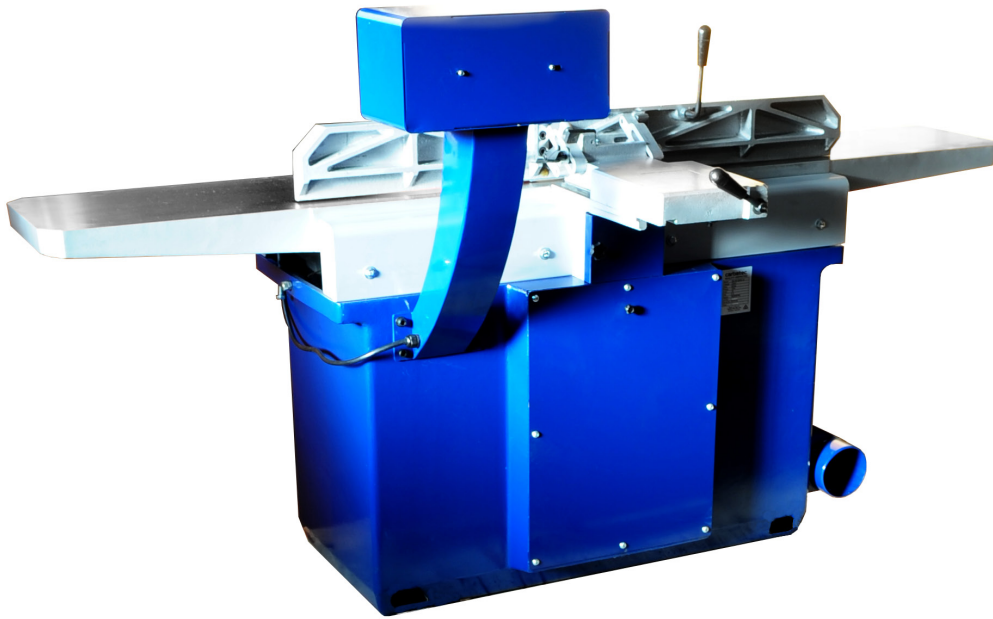
WARRANTY

- A. We warrant that this Carbatec product will be free from defects caused by faulty workmanship or faulty materials for a period of 3 years from date of sale.
- B. This warranty is in addition to other rights and remedies you may have under a law in relation to the goods.
- C. This warranty does not apply in any of the following cases:
- i. Defects arising from:
 1. fair wear and tear;
 2. corrosive atmosphere;
 3. damage or injury caused by deliberate act, lack of care or failure to comply with the recommended care and maintenance for the goods;
 4. improper use of the goods;
 5. alterations or repairs (not made by us) to the goods;
 - ii. defects arising from an event outside of our control such as fire, flood, earthquake or other natural calamity, motor vehicle or other accident, strike, civil unrest, terrorism or war;
 - iii. to accessory items such as after-market jigs, accessories or other items which are not sold or serviced by us and which are not sold with or were not included with the main unit purchased; or
 - iv. to wearable parts such as drive belts/shafts, bearings, bandsaw tyres, motor brushes, blades or abrasive belts/discs or other cutting or machining implements.
 - v. damage caused to any electrical component, where connected to a power supply outside the country for which it was designed (namely Australia or New Zealand).
- D. If this warranty applies and you have complied with the procedure below for making a claim, we will, at our election, either repair the goods (or those parts of the goods recognised as defective) or will provide a replacement within a reasonable time at our expense.
- E. If this warranty applies, the procedure for making a claim is:
- i. you must contact us by email;
 - ii. you must include in the email the following information:
 1. a copy of the order or receipt for the goods;
 2. the serial or batch number printed on the machinery manufacturing plate; and
 3. a detailed description of the fault and how and when it arose; and
 4. If the fault is a type covered by this warranty, we will then make arrangements with you for the return of the goods to us (for repair or replacement) at our cost using our transport providers or we may decide to attend at your premises to repair or replace the goods.
- F. Our liability (and that of our resellers) under this warranty is wholly limited to repair or replacement of the goods (or those parts of the goods recognised as defective) in accordance with the procedure above and you have no right to other compensation, costs or damages under this warranty. But this does not mean that you may not have other rights under a law in relation to the goods.
- G. If following our inspection of goods returned by you under this warranty it is found that this warranty does not apply and you are not otherwise entitled to repair or replacement by us, you must, if requested by us, reimburse our costs including parts, labour and freight.
- H. This warranty is not transferable and only the person who purchased the goods may make a claim.

Where the goods have been exported outside Australia or New Zealand, the Company may not require the Purchaser to return any allegedly faulty or defective Product for evaluation. However, the Company has the right to request the return for evaluation at purchasers cost.

STATUTORY NOTICE

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.



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