RIKON
POWER TOOLS

25-200H

12” Planer / Jointer

with Helical Cutterhead

Intertek
4001824

Operator’s Manual

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

Serial Number: _____ Date of purchase: _____

For technical support or parts questions, email techsupport@rikontools.com or call toll free at (877)884-5167

TABLE OF CONTENTS

SPECIFICATIONS

Motor	3 HP, TEFC
Motor Speed (no load)	3400 RPM
Volts	220 V
Amps, Hertz	12 A, 60 Hz
Cutterhead Diameter	2-3/4" (69.85 mm)
Cutterhead Speed (RPM / CPM)	4700 RPM / 18,800 CPM
Number of Carbide Inserts, 4-sided	56
Knife Insert Size (L x W x T)	0.59" x 0.59" x 0.10"
Maximum Depth of Cut (Planing & Jointing)	1/8" (3.18 mm)
Maximum Cutting Width (Planing & Jointing)	12" (304.8 mm)
Maximum Cuttng Depth (Planing Height)	7-7/8” (200 mm)
Planer Table Size	20-1/4" x 12" (514.4 x 304.8 mm)
Feed Speed Planing SF/min	23 (7 SM/min)
Jointer Table Size	13" x 49-3/8" (330 x 1254 mm)
Fence Size	6" x 43" (152.4 x 1092 mm)
Fence Tilting Degree	0 - 45°
Dust Port	4” Diameter (100 mm)
Dust Collection Minimum CFM	650
Noise Level (no load)	≤98dB
Overall Size (LxWxH)	49-1/4" x 19" x 34" (1251 x 863.6 x 482.6 mm)
Base Size	25-1/2” x 19” (647.7 x 482.6 mm)
Net Weight	386 lbs (175 kg)

NOTE: The specifications, photographs, drawings and information in this manual represent the current model when the manual was prepared. Changes and improvements may be made at any time, with no obligation on the part of Rikon Power Tools, Inc. to modify previously delivered units. Reasonable care has been taken to ensure that the information in this manual is correct, to provide you with the guidelines for the proper safety, assembly and operation of this machine.

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.

SAFETY SYMBOLS

SAFETY ALERT SYMBOL: Indicates DANGER, WARNING, or CAUTION. This symbol may be used in conjunction with other symbols or pictographs.

DANGER Indicates an imminently hazardous situation, which, if not avoided, could 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: Shown without Safety Alert Symbol indicates a situation that may result in property damage.

GENERAL SAFETY

KNOW YOUR POWER TOOL. Read the owner's manual carefully. Learn the tool's applications, work capabilities, and its specific potential hazards.

BEFORE USING YOUR 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 the State of California to cause cancer, birth defects, or other reproductive harm.
Some examples of these chemicals are:
- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other
- masonry products.
- Arsenic and chromium from chemically treated lumber.

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

2. **READ** the entire Owner's 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 3rd prong is used to ground the tool and provide protection against accidental electric shock. **DO NOT** remove the 3rd prong. See Grounding Instructions on the following pages.

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 gasses.

6. **ALWAYS** keep the work 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 jewelry. 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 the 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.

11. **ALWAYS UNPLUG THE TOOL FROM THE ELECTRICAL RECEPTACLE** when making adjustments, changing parts or performing any maintenance.

SAFETY INSTRUCTIONS

12. **KEEP PROTECTIVE GUARDS IN PLACE AND IN WORKING ORDER.**

13. **AVOID ACCIDENTAL STARTING.** Make sure that the power switch is in the “OFF” position before plugging in the power cord to the electrical receptacle.

14. **REMOVE ALL MAINTENANCE TOOLS** from the immediate area prior to turning “ON” the machine.

15. **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.

16. **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.

17. **DO NOT STAND ON A TOOL.** Serious injury could result if the tool tips over, or you accidentally contact the tool.

18. **DO NOT** store anything above or near the tool where anyone might try to stand on the tool to reach it.

19. **MAINTAIN YOUR BALANCE. DO NOT** extend yourself over the tool. Wear oil resistant rubber soled shoes. Keep floor clear of debris, grease, and wax.

20. **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.

21. **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.

22. **DO NOT OPERATE TOOL WHILE TIRED, OR UNDER THE INFLUENCE OF DRUGS, MEDICATION OR ALCOHOL.**

23. **SECURE ALL WORK.** Use clamps or jigs to secure the workpiece. This is safer than attempting to hold the workpiece with your hands.

24. **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.

25. **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 collection system wherever possible. Exposure to the dust may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing the 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 NIOSH/OSHA approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.

26. **USE A PROPER EXTENSION CORD IN GOOD CONDITION.** When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. The table on the following page shows the correct size to use depending on cord length and nameplate amperage rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the larger diameter of the extension cord. If in doubt of the proper size of an extension cord, use a shorter and thicker cord. An undersized cord will cause a drop in line voltage resulting in a loss of power and overheating.
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.

27. **ADDITIONAL INFORMATION** regarding the safe and proper operation of this product is available from:

- Power Tool Institute
  1300 Summer Avenue
  Cleveland, OH 44115-2851
  www.powertoolinstitute.org

- National Safety Council
  1121 Spring Lake Drive
  Itasca, IL 60143-3201
  www.nsc.org

- American National Standards Institute
  25 West 43rd Street, 4th Floor
  New York, NY 10036
  www.ansi.org

- ANSI 01.1 Safety Requirements for
  Woodworking Machines and the
  U.S. Department of Labor regulations
  www.osha.gov

28. **SAVE THESE INSTRUCTIONS.** Refer to them frequently and use them to instruct others.

SAFETY INSTRUCTIONS

ELECTRICAL SAFETY

⚠ WARNING:

THIS TOOL REQUIRES THE INSTALLATION OF A 220V PLUG (NOT INCLUDED), AND MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.

IN THE EVENT OF A MALFUNCTION OR BREAK-DOWN, grounding provides the path of least resistance for electric current and reduces the risk of electric shock. This tool is equipped with an electric cord that has an equipment grounding conductor and requires a grounding plug (not included). 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 ANY PLUG. 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 when installing or replacing a plug.

REPLACE A DAMAGED OR WORN CORD IMMEDIATELY.

This tool is intended for use on a circuit that has a 220 volt electrical receptacle. **FIGURE A** shows the type of the 220v, 3-wire electrical plug and electrical receptacle that has a grounding conductor that is required.

Sample of 220 volt plug required for this machine.

NEMA 6-20P

Consult a qualified electrician if the distance of the machine from the electrical panel is greater than 30 feet.

FIG. A

EXTENSION CORDS

⚠ WARNING:

USE OF AN EXTENSION CORD WITH THIS MACHINE IS NOT RECOMMENDED. FOR BEST POWER AND SAFETY, PLUG THE MACHINE DIRECTLY INTO A DEDICATED GROUNDED ELECTRICAL OUTLET THAT IS WITHIN THE SUPPLIED CORD LENGTH OF THE MACHINE.

IF AN EXTENSION CORD NEEDS TO BE USED, IT SHOULD ONLY BE FOR LIMITED OPERATION OF THE MACHINE. THE EXTENSION CORD SHOULD BE AS SHORT AS POSSIBLE IN LENGTH, AND HAVE A MINIMUM GAUGE SIZE OF 14AWG.

USE ONLY A 3-WIRE EXTENSION CORD THAT HAS THE PROPER TYPE OF A 3-PRONG GROUNDING PLUG THAT MATCHES THE MACHINE'S 3-PRONG PLUG AND ALSO THE 3-POLE RECEPTACLE THAT ACCEPTS THE TOOL'S PLUG. *

⚠ WARNING: Check extension cords before each use. If damaged replace immediately. Never use a tool with a damaged cord, since touching the damaged area could cause electrical shock, resulting in serious injury.

Use a proper extension cord. Only use cords listed by Underwriters Laboratories (UL). Other extension cords can cause a drop in line voltage, resulting in a loss of power and overheating of tool. When operating a power tool outdoors, use an outdoor extension cord marked "W-A" or "W". These cords are rated for outdoor use and reduce the risk of electric shock.

⚠ WARNING: Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools or other obstructions while you are working with your power tool.

*** Canadian electrical codes require extension cords to be certified SJT type or better.**

**** The use of an adapter in Canada is not acceptable.**

C ETL CM US LISTED

Intertek

THIS SYMBOL DESIGNATES THAT THIS TOOL IS LISTED BY THE INTERTEK TESTING SERVICES, TO UNITED STATES AND CANADIAN STANDARDS.

SAFETY INSTRUCTIONS

SPECIFIC SAFETY INSTRUCTIONS FOR PLANER / JOINTERS

This machine is intended for the surfacing of natural, solid woods. The permissible workpiece dimensions must be observed (see Technical Specification). Any other use not as specified, including modification of the machine or use of parts not tested and approved by the equipment manufacturer can cause unforeseen damage.
ATTENTION: Use of this planer/jointer still presents risks that cannot be eliminated by the manufacturer. Therefore, the user must be aware that wood working machines are dangerous if not used with care and all safety precautions are adhered to.

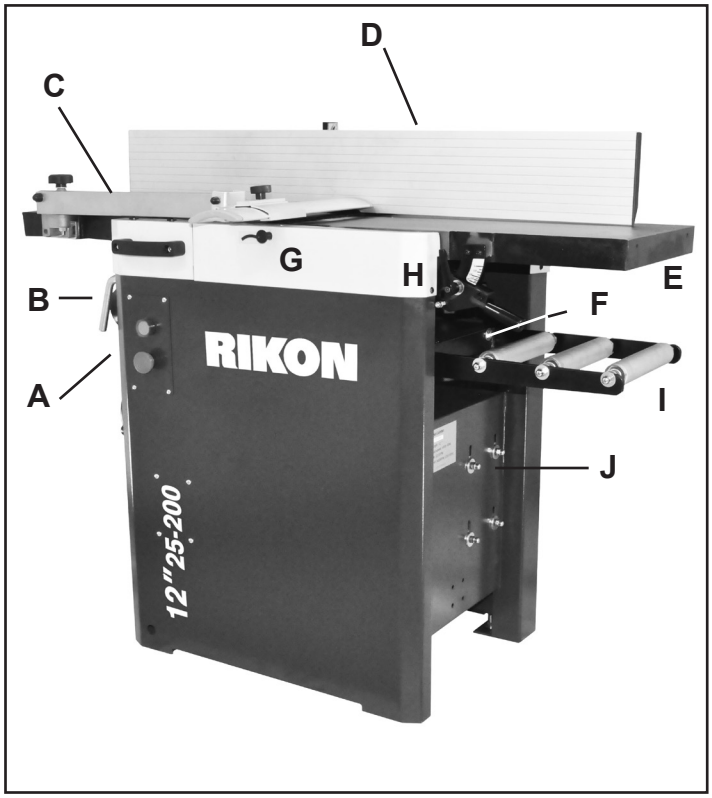
1. Do not operate this machine until you have read all of the following instructions.
2. Do not attempt to operate this machine until it is completely assembled.
3. Do not turn ON this machine if any pieces are damaged or missing.
4. This machine must be properly grounded.
5. If you are not familiar with the operation of the machine, obtain assistance from a qualified person.
6. Always wear approved, safety protective eyewear and hearing protection when operating this machine.
7. Always wear a dust mask and use adequate dust collection and proper ventilation.
8. Do not wear loose clothing or jewelry when operating this machine. Keep long hair tied back.
9. Always make sure the power switch is in the OFF position prior to plugging in the machine.
10. Always make sure the power switch is in the OFF position and the machine is unplugged when doing any cleaning, assembly, setup operation, or when not in use.
11. Make sure all safety guards and hardware are securely tightened before operating the machine.
12. Regularly check that the blades are locked tight in the cutterhead.
13. Always keep hands and fingers away from the cutterhead, chip exhaust opening, feed rollers, belts and pulleys to prevent injury. Use push blocks when jointing wood shorter than 12" long, plus any narrow or thin stock.
14. Never joint wood less than 8" long, widths under 3/4", or material less than 1/4" thick.
15. Never make cuts deeper than 1/8”. Multiple cuts, 1/16" or less, produce better finish results.
16. Make sure there are no loose knots, nails, staples, dirt or foreign objects in the workpiece to be surfaced.
17. Use extra caution with large, warped, very small or awkward workpieces. Joint warped boards flat before planing.
18. Use extra supports (roller stands, saw horses, tables etc, for any workpieces large enough to tip when not held down to the table top surfaces.
19. Surface wood in the same direction of the grain, not across the grain. Never plane end cuts or end grain.
20. Joint and plane only one workpiece at a time. Vary the feeding of the workpieces along the cutterhead, center/left/right, so that all of the knives get used and thus remain sharp, longer.
21. Never reach inside of a running machine, and avoid awkward operations and hand positions where a sudden slip could cause fingers or a hand to move into the cutterhead.
22. Do not clear a jammed workpiece while the machine is running. Stop the machine, unplug it from the power scource, and then remove the jammed workpiece. Lowering the table may be necessary to dislodge the workpiece.
23. Keep your face and body to one side of the machine during use, out of line with a possible 'kick back' (lumber caught in by the rotating cutterehead and thrown back towards the operator).
24. The use of any accessories or attachments not recommended may cause injury to you and damage your machine.
25. Sharpen or replace dull or chipped knives immediately, as injury to the user, or the machine, may result.
26. Replacement knives/inserts should be from, or through a source recommended by the manufacturer.
27. Remove material or debris from the work area. Keep work area neat and clean.

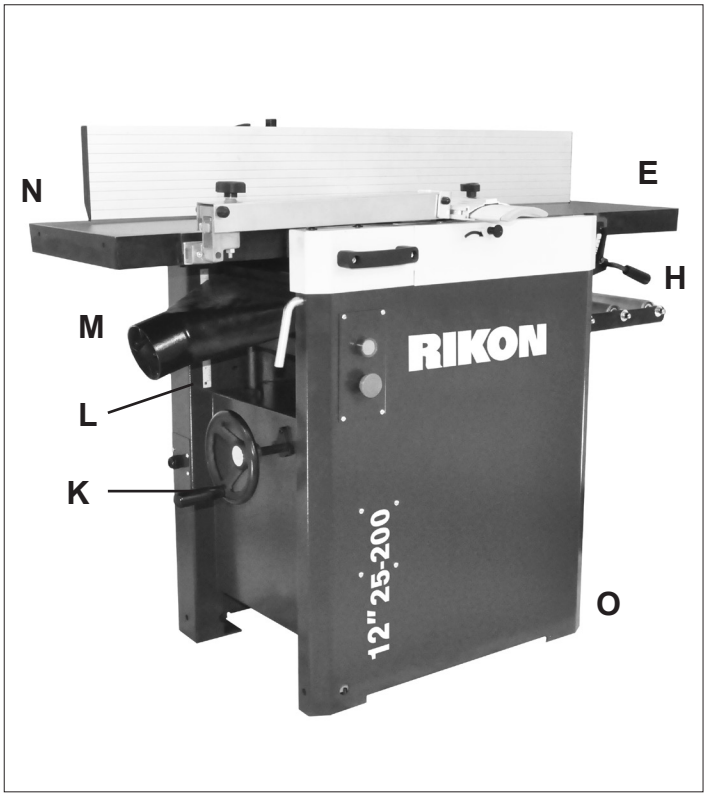
This owner’s manual is not a teaching aid and is intended to show assembly, adjustments, and general use.

CALFORNIA PROPOSITION 65 WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.Your risk from exposure to these chemicals varies, depending on how often you do this type of work. To reduce your exposure, work in a well-ventilated area and with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

For more detailed information about California Proposition 65 log onto rikontools.com.

GETTING TO KNOW YOUR MACHINE



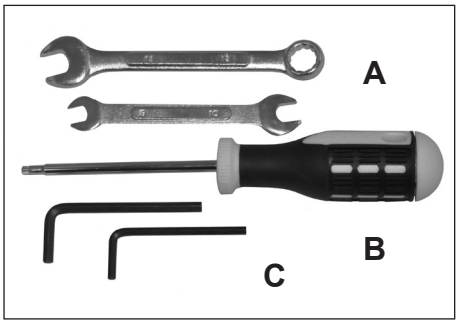


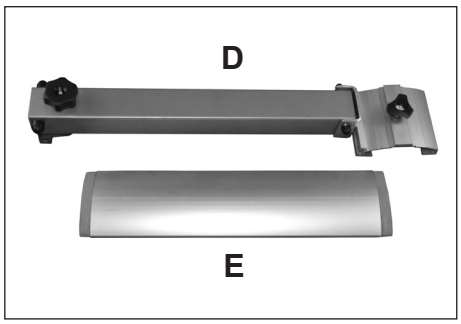
A. ON/OFF Switch
B. Jointer Table Lock Handle
C. Cutterhead Guard Assembly
D. Jointer Fence
E. Infeed Table
F. Planer Table
G. Dust Port Release Knob
H. Jointer Table Adjustments
I. Roller Table
J. Motor Mounting Fasteners
K. Planer Table Height Wheel
L. Planer Height Scale
M. Dust Port
N. Outfeed table
O. Cabinet

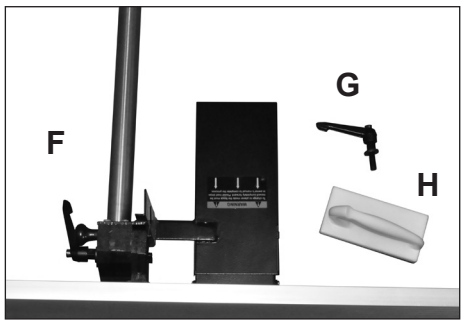
CONTENTS OF PACKAGE

Carefully unpack your machine from its carton. Check for any shipping damage, and make sure the following parts are included. If any parts are missing or broken, please call RIKON Customer Service (877-884-5167) as soon as possible for replacements. DO NOT turn your machine ON if any of these items are missing. You may cause injury to yourself or damage to the machine.

LIST OF LOOSE PARTS







A. Wrenches - 13mm & 10mm
B. Star T25 Screwdriver
C. Hex Wrenches - 4mm & 5mm
D. Cutterhead Guard Assembly
E. Cutterhead Guard Cap
F. Fence Assembly
G. Lock Handle & Washer
H. Push Block

INSTALLATION

MOVING & INSTALLING THE PLANER

⚠ CAUTION When moving the planer/jointer, DO NOT carry it with the infeed and outfeed rollers. Use a forklift, or pallet jack under the machine to lift and move the planer, or with straps or battens placed under the planer bed. FIG. 1, A.

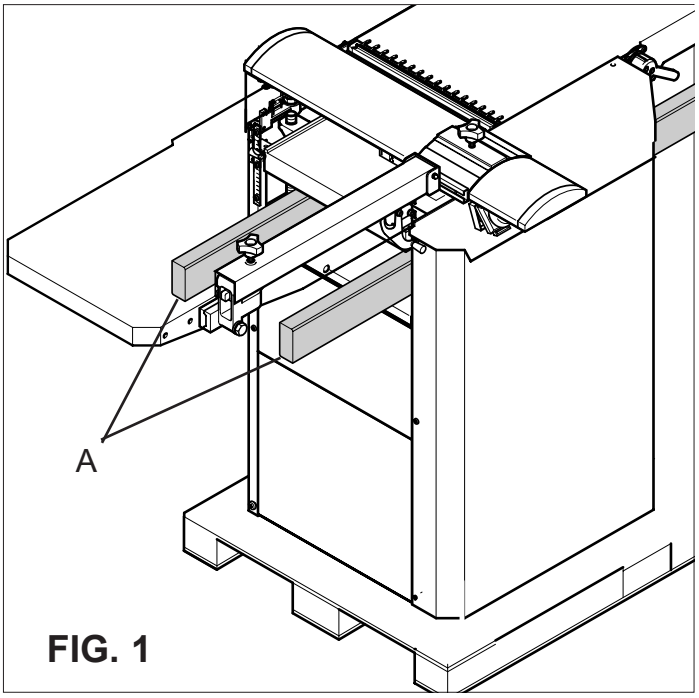


FIG. 1

1. Position the machine on a solid, level foundation that is located in an area that ample space in front and in back of the planer/jointer for the moving of lumber to be milled. Align the machine so that during use, any kickback will not face aisles, doorways, or other work areas that bystanders may be in. Do not locate or use the machine in damp or wet conditions.

2. The machine is firmly bolted to a pallet with 4 bolts and nuts. Once the planer/jointer is in the area where it will reside, unbolt it from the pallet. The bolts are located through the two openings at the bottom ends.

3. Carefully move the machine off the pallet by pushing the lower body/frame of the machine. Do not push or lift the planer/jointer by the extension table, upper lid area, or by the jointer infeed & outfeed tables as this may damage the machine.

4. Once in place in your shop, secure the machine to the floor with lag screws (not supplied). Use the same four holes that secured the planer/ jointer to the pallet for transport. FIG. 2.

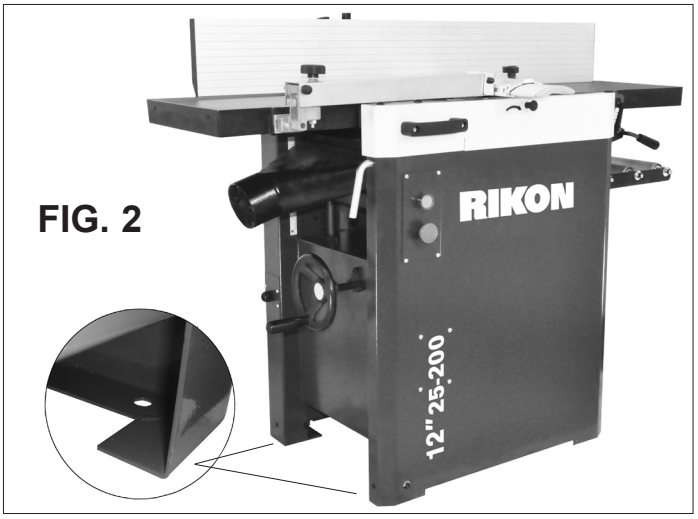


FIG. 2

ASSEMBLY

⚠ WARNING THE MACHINE MUST NOT BE PLUGGED IN AND THE POWER SWITCH MUST BE IN THE 'OFF' POSITION UNTIL ASSEMBLY IS COMPLETE.

Unpacking and Clean-up

1. Carefully remove all contents from the shipping carton. Compare the contents with the list of contents to make sure that all of the items are accounted for, before discarding any packing material. Place parts on a protected surface for easy identification and assembly.

2. Report any shipping damage to your local distributor.

3. Clean all rust protected surfaces with ordinary house hold type grease or spot remover. Do not use; gasoline, paint thinner, mineral spirits, etc. These may damage painted surfaces.

4. Apply a coat of paste wax to the table to prevent rust. Wipe all parts thoroughly with a clean dry cloth. Be careful when reaching inside of the planer as the knives are sharp and may cause injury if touched.

5. Set packing material and shipping carton aside. Do not discard until the machine has been set up and is running properly.

ASSEMBLY

JOINTER FENCE INSTALLATION

For shipping purposes, the Sliding Fence Bracket (#293) is installed incorrectly, backwards, extending above the table surface. FIG. 3, A. This bracket must be reversed before installing the fence.

WARNING: When working on, or near the machine's bed, avoid the risk of personal injury by cuts that may result from touching the knife inserts' sharp edges!

1. Remove the Hex Bolts (#294) that attach the bracket to the table casting, and turn the bracket around 180 degrees. See FIG. 4 for the correct position for the bracket.

2. Attach the bracket in place with the three hex bolts and washers.

3. Locate the Locking Handle and Washer (#292, 246) from the loose parts bag, and install the handle onto the sliding fence bracket as shown in FIG. 4, B.

4. The Jointer Fence has been pre-assembled for shipping. Slide the fence Guide Rail (#300) into the fence bracket through the hole, and lock it in place with the handle. FIG. 5.

The Fence Assembly includes a 6" x 43" extruded aluminum fence, angle adjustment mechanism, angle scale, and safety cutterhead guard. See page 10 for information on adjusting the fence for jointing.

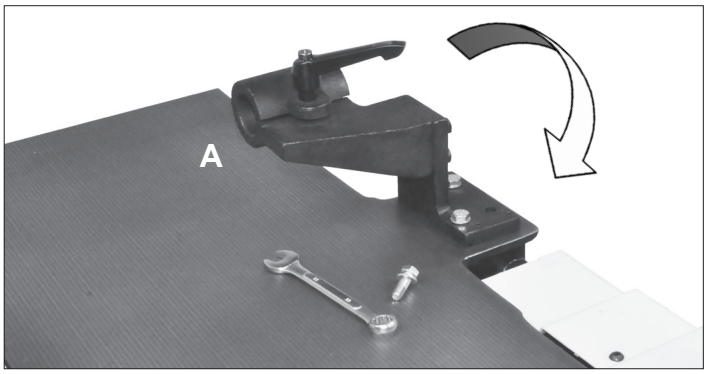


FIG. 3

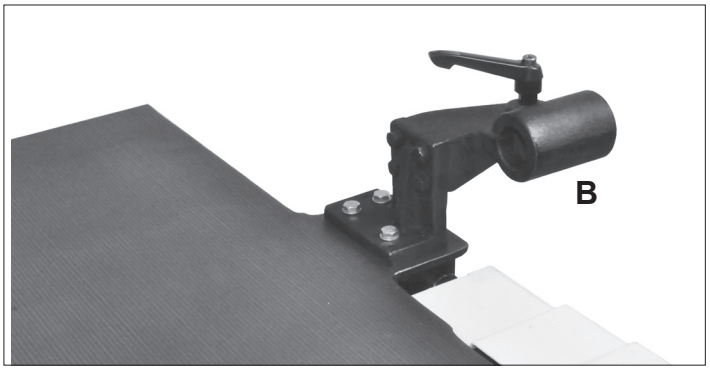


FIG. 4

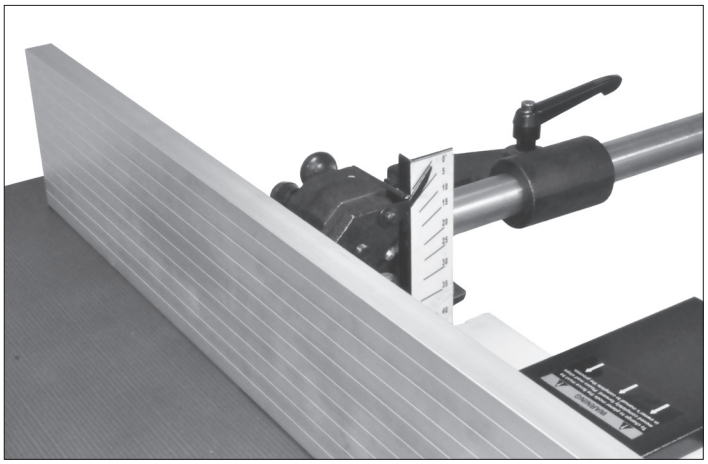


FIG. 5

INSTALLING THE CUTTERHEAD GUARD

The cutterhead guard is shipped in two parts; the arm and bracket Assembly (#360, 364) and Guard (#371). When assembled and installed, it can be adjusted to provide maximum protection to the user from the sharp cutterhead insert knives. Always operate the machine with the guard properly adjusted for the width and thickness of your stock being jointed. Keep the guard covering the full cutterhead when the machine is nt in use to avoid any accidents.

WARNING: When working on, or near the machine's bed, avoid the risk of personal injury by cuts that may result from touching the knife inserts' sharp edges!

1. Remove the two Hex Socket Screws (#132) that are pre-installed on the front side of the outfeed table. FIG. 6.

2. Install the bracket on the end of the Cutterhead Guard Assembly using the two of hex socket screws. Make sure the Square Washer/plate (#384) stays between the table and cutterhead guard bracket.

3. Insert the curved Cutterhead Guard (#371) through the front of the guard assembly. The guard will slide back and forth to cover the cutterhead, and can be secured in position with the top knob.

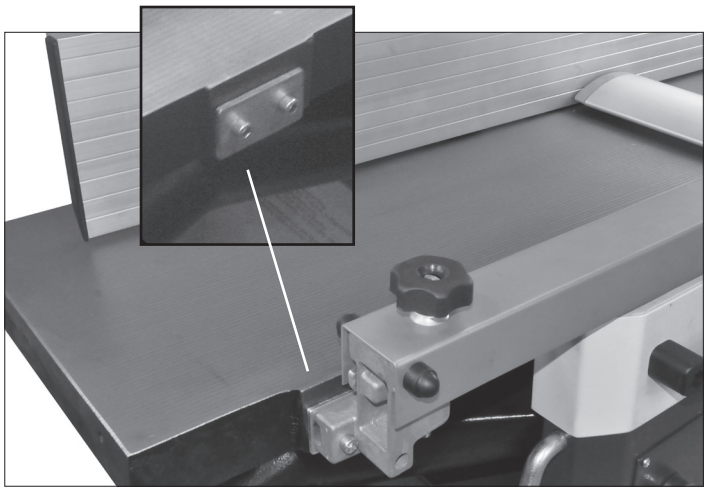


FIG. 6

ADJUSTMENTS

JOINTER FENCE ADJUSTMENT

The jointer fence provides lateral support for the workpiece when surface planing.

1. After loosening the Locking Handle (#292, FIG.7, A), the jointer fence can be moved forward or backwards over the jointer bed and cutterhead, to match the workpiece width.

2. The jointer fence can be tilted to any angle between 90°- 45°. To adjust the fence angle, loosen the ratchet Locking Handle (#291, B) and Pin Stop Knob (#288, C).

3. Tilt the fence to the angle desired, then re-tighten the locking handle (B) to ensure the fence is securely in position. The pin stop knob only secures the fence in the 90° position, so is not active when the fence is set at an angle.

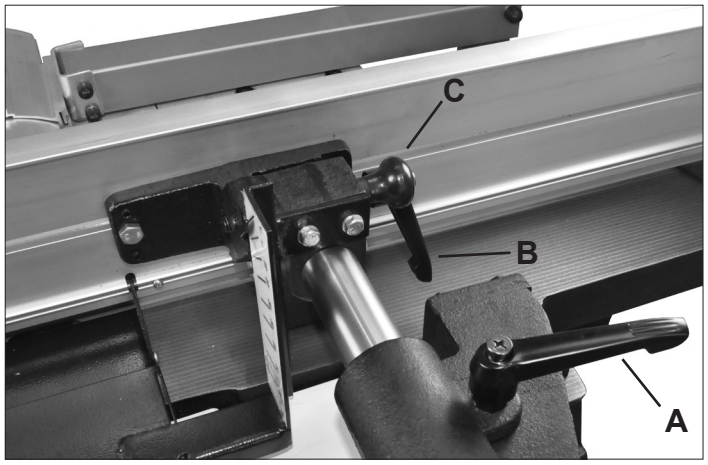


FIG. 7

SETTING THE FENCE TO 90° & 45°

4. To set the fence at 90° to the table surface, set a try square (FIG. 8, D) against the fence extrusion (E).

5. Lightly loosen the three Hex Bolts (#294, F) on the base of the Sliding Bracket (#293, G), and adjust the Set Screws (#152, H) until the fence is square with the jointer table. Adjust the set screws in pairs, with the same amount of rotations. The two forward set screws will tilt the fence slightly backwards, and the two rear set screws will tilt the fence forward.

6. When the fence extrusion is exactly 90°, tighten the hex bolts to secure the fence assembly in position.

7. To set the fence at exactly 45° *backwards*, set a miter square (FIG. 9, H) against the fence extrusion. This angle is actually 135° from the jointer table.

8. There are two Hex Bolts (#302, FIG 9, I) at the bottom of the Fence Bracket (#283, J) that touch the table when at the 45° setting. Ajust the hex bolts until the fence extrusion is exactly set at 45°, then secure the bolts in position with their Hex Nuts (#301).

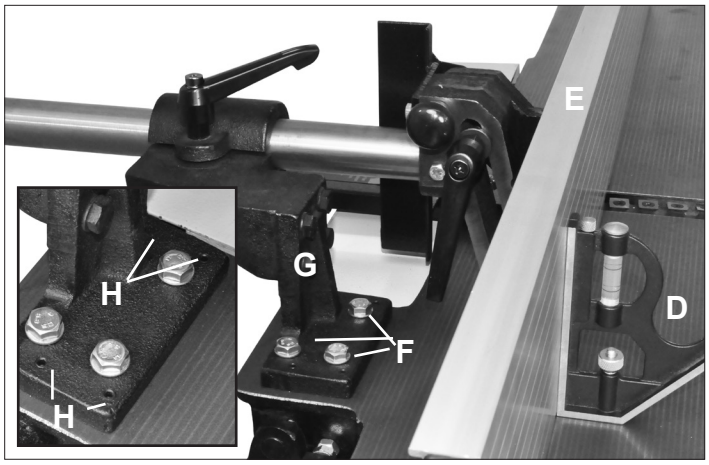


FIG. 8

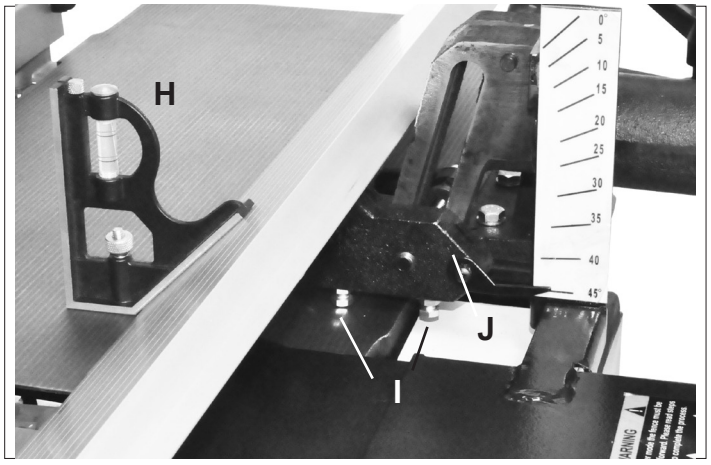


FIG. 9

INFEED TABLE HEIGHT ADJUSTMENT

The jointer's Infeed Table (#92, FIG. 10, K) is adjusted up and down by using the adjusting Lever (L). This regulates the cutting depth for edge jointing and surface planing.

1. Loosen the Locking Handle (#105, M).

2. Move the Lever (L) to raise or lower the table. The Scale (#341, N), located next to the adjusting lever, corresponds to the depth of cut - how much material is being removed - from 0" to 1/8".

3. After adjustment to the table height that you desire, tighten the locking handle to secure the table in position.

NOTE: Never make cuts deeper than 1/8". Multiple cuts, 1/16" or less, produce better finish results.

FIG. 10

ADJUSTMENTS

PLANER TABLE HEIGHT ADJUSTMENT

Height adjustment of the planer's table is made with the Handwheel (#193, FIG. 11, A). One full turn of the crank changes the height of the Planer's Table (#386, B) by 5/32".

- Clockwise Turning = raises the planer bed
- Counter-Clockwise Turning = lowers the planer bed.

The planing thickness is indicated on the Scale (#172, C).

⚠ CAUTION A maximum of 1/8" material can be removed in one pass through the planer. Do not exceed this depth of cut or damage to your machine may result. The maximum thickness of stock to be planed is 8", and the maximum width of boards is 12" wide.

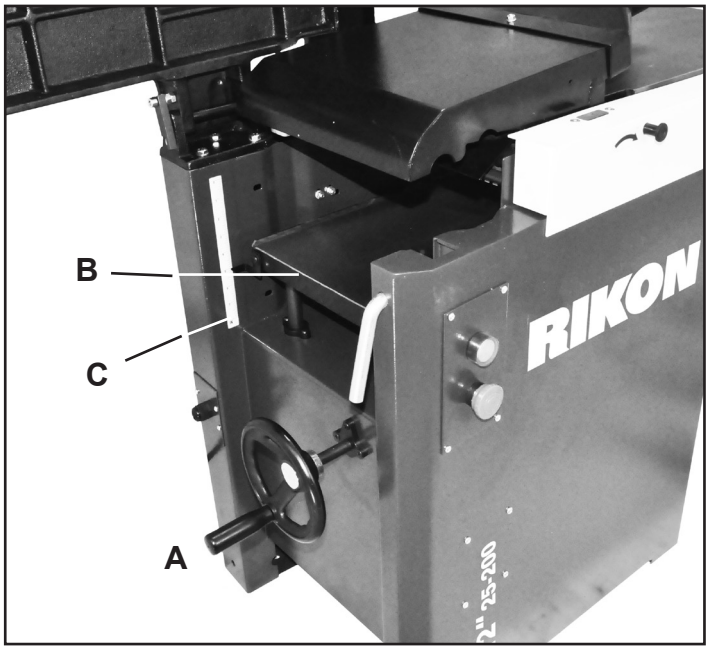


FIG. 11

ADJUSTING THE EXTENSION TABLE

An Extension Table (#422) with rollers is supplied pre-installed on the planer to help support lumber as it exits the machine during use. FIG. 12.

1. The rollers on the extension table should be level with the planer's table. Use a straight edge to check and confirm that the extension table is properly aligned in height with the planer's table.

2. If the extension table is properly aligned, make sure that the bolts that secure the extension table to the planer's table are tightened. If the extension table is not level, loosen the bolts so that the extension table can be positioned correctly level with the planer's table.

3. Once the extension table is positioned level with the planer's table, secure it in place by tightening the fasteners.

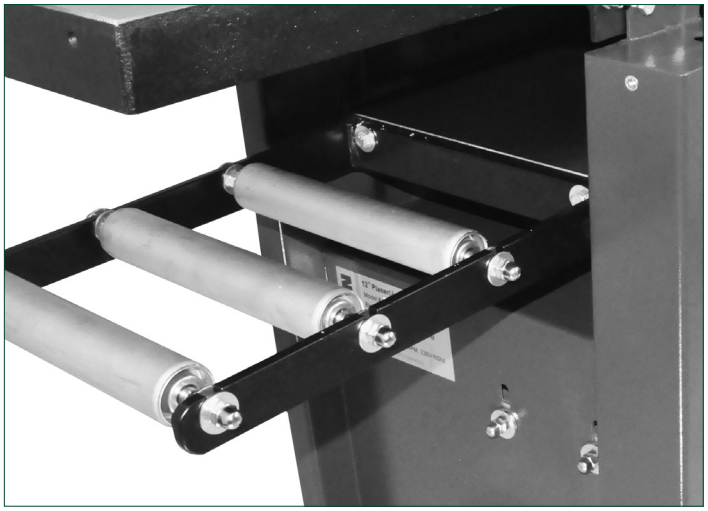


FIG. 12

ON/OFF SWITCHES

The planer is equipped with a standard, push button ON/OFF safety switch (#6) located on the front of the machine. FIG. 13. Push the top green button to start the planer. Push the lower red button to stop the planer.

Two additional automatic OFF, safety micro-switches (#332) are located under the machine's rear Cover (#131). Should the cover ever be opened while the machine is running, these switches will stop the machine from operating.

NOTE: When working on the planer, the machine should always have the red, OFF button engaged and the cord un-plugged from the power source.

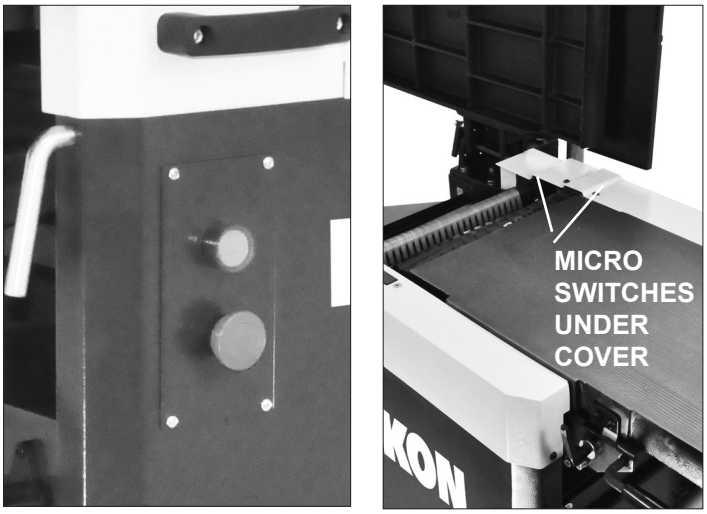


FIG. 13

ADJUSTMENTS

WARNING **THE MACHINE MUST NOT BE PLUGGED IN AND THE POWER SWITCH MUST BE IN THE OFF POSITION UNTIL ADUSTMENTS ARE COMPLETE.**

ROTATING OR REPLACING KNIFE INSERTS

This machine has a helical cutterhead with four rows of carbide knife inserts. Each of the 56 inserts on the cutterhead are indexed and have four sharpened sides. If the knives become dull, or one becomes nicked, simply loosen the retaining screws with the supplied star head screwdriver, lift up and rotate the inserts to a new sharpened edge. No setting is required, as the cutterhead has been machined to automatically index and set the inserts in proper position for use. When all four sides of an insert are dull, the insert can be easily removed and a new carbide insert placed in the location.
To rotate or remove a carbide insert knife:

1. Unplug power cable.

2. Remove the Screw (#350), that holds the Insert in the cutterhead, and the Insert knife (#349). FIG. 14.

3. While the insert is removed, clean any resin buildup or trapped dust from the surfaces of the cutterhead with a suitable solvent. A tooth brush works well for safe cleaning around the sharp inserts. Any accumulated dust can affect the seating of the insert in the cutterhead.

4. Rotate the insert so that a new sharpened edge is in position. The inserts have a indication mark on their top surface corner, so that you can reference the positioning of the insert's dulled or sharpened edges. FIG. 14, 15, 16.

5. Tighten the insert's set screw to lock the insert back in position. DO NOT overtighten the screw or damage to the insert may result. Torque to 50-55 in/lbs.

6. Plug in the power cable when you are ready to resume jointing and planing.

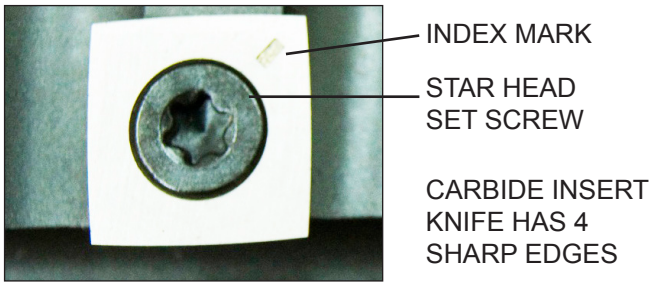


FIG. 14

CAUTION Wear gloves when changing knife inserts to avoid the risk of personal injury by cuts that may result from touching the sharp edges!

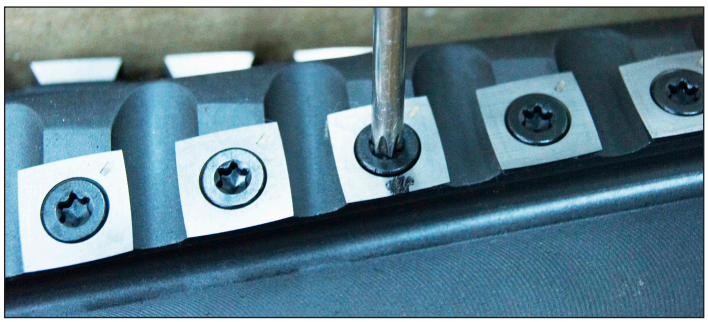


FIG. 15

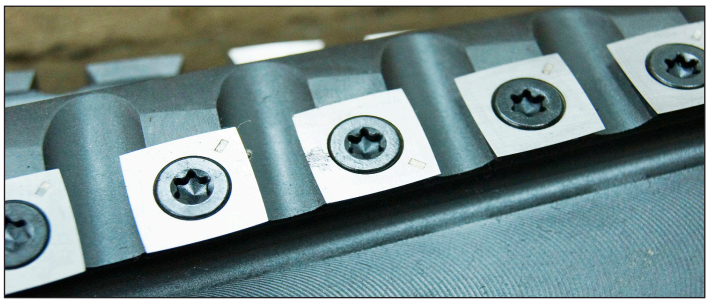


FIG. 16

JOINTER TABLE ALIGNMENT

For the best surfacing of workpieces, the jointer's infeed and outfeed tables must be set at the same level to form a large 'flat' surface. These tables must also be in alignment with the cutterhead for true surfacing, when you measure the flatness of a board from side-to-side and end-to-end.

The machine has been factory set before shipping - the infeed table being set to the cutterhead knives, and then the outfeed table set to the infeed table. But once the machine has been set in its final location in the shop, the table alignments should be checked to make sure that there has been no movement during its handling.

1. Position and lock the infeed table at its high '0" ' setting, so that it should be level with the outfeed table.

2. Slide the fence and cutterhead guard to the sides and off the tables to reveal the whole table surfaces. FIG. 17.

FIG. 17

continued on page 13

ADJUSTMENTS

Table Alignment continued from page 12

NOTE: It may be easier to remove the fence assembly and guard for this exercise.

3. Rotate the cutterhead so that the knife inserts do not interfere with the measurements that will be taken.

4. With a long metal straight edge, place it length-wise along the outfeed table so that it extends onto the infeed table. The straight edge should lie level across BOTH tables. If it does, the tables are true to each other, and the machine guards can be re-set for use. FIG. 18.
If the straight edge does not lie flat across both tables, then the tables must be adjusted. Tune the outfeed table, as the infeed table was factory set to the cutterhead.

FIG. 18

ADJUSTING THE OUTFEED TABLE

1. The outfeed table needs to be lifted up and back into a verticle position. See page 19, step 1 & 2 for full details on this process. The Dust Chute (#30) should be left in the down, jointer-use position so adjustments can be made.

2. With the table up, the Mounting Base (#151) for the out-feed table is exposed. The base has three Hex Bolts (#154) and four Set Screws (#152) that fasten the table to the cabinet. The set screws can be adjusted to slightly tilt the table to align it with the infeed table. FIG. 19.

3. Slightly loosen the three hex bolts so that the set screws can be adjusted. With small 1/8 or 1/4 turns of the set screws, tilt the table as needed. A clockwise turn will advance the set screw, a counter-clockwise turn will retract them from the base casting.

- The pair of 2 set screws to the far left will raise the left end of the table. FIG. 19, A & B.
- The pair of 2 set screws to the far right will raise the forward edge of the table, nearest the cutterhead. C & D.
- The pair of screws furthest back in the base will tilt the back of the table upward. B & C.
- The pair of 2 set screws at the front of the base will lift up the front edge of the table. A & D.

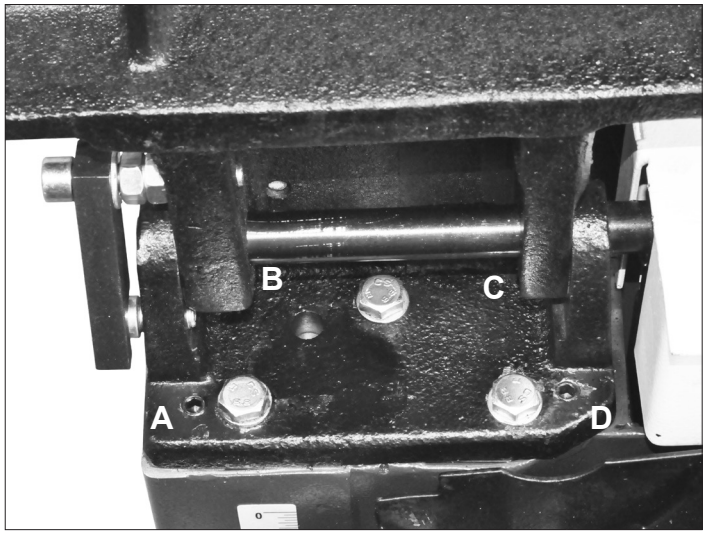


FIG. 19

- The table can also be tilted down, or up, towards a specific corner should the situation arise. Three of the set screws would be adjusted for this. Example: To tilt the far left corner of the table up, set screws D, then A & C would be turned. Screw B would be the 'pivot point'

4. The table can also be tilted forward or back with the two Special Bolts (#142, FIG. 20, E & F). The combination of the six bolts and screws (A-F) provide a great range of table positioning to level it with the infeed table.

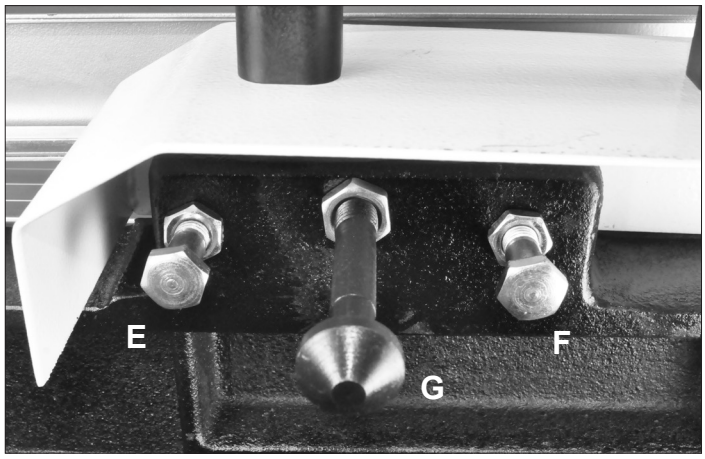


FIG. 20

5. Once adjustments are made, the outfeed table should be lowered and the flatness measurement taken again with the straight edge.This may require a few attempts to get the tables in alignment. Then the three hex bolts (#154) can be tightened to lock the settings. The two Special Bolts (E & F) should also be checked to make sure that they both lie on the Cabinet, then tightened.

6. With the table lowered, make sure the safety Table Lock (#146) will engage. This special bolt can be adjusted up or down by its threaded end, then set with the nut . FIG 20, G.

7. Re-adjust, or install the fence and guard for use.

ADJUSTMENTS

ADJUSTING THE INFEED TABLE

The Infeed Table is pre-set by the factory to align with the cutterhead's knife inserts. Should an adjustment be required, the following steps are needed.

1. The outfeed table with the fence and cutterhead guard needs to be lifted up and back into a verticle position. See page 19, step 1 & 2 for full details on this process. The Dust Chute (#30) should be left in the down, jointer-use position so adjustments can be made.

2. With the outfeed table up, the Front Cover (#136, A) and Rear Cover (#131, B) must be removed to access the bolts that will adjust the infeed table. FIG. 21.

3. The infeed table rises and lowers on four mounting bolts (#98, FIG. 22, A), and self-align with the cutterhead. These bolts do not have to be adjusted. Raise the infeed table to its highest, 0", level and use a metal straight edge to check its level flatness with the outfeed table.

4. To change the angle, or tilt of the infeed table there are three Hex Bolts (#95, FIG. 22, B) that can be used to move the table, if needed.

5. The bolts closest to the cutterhead will allow for table height adjustment to the knives, as well as level adjustment.

6. The bolts further from the cutterhead will adjust the table slope towards and away from the knives.

7. The center bolts act as pivots while making the adjustments on the other bolts. Their settings do not need to be changed, unless extra movement of the table is necessary.

8. Once adjustments are made, the infeed table should be checked for flatness with the outfeed table with a straight edge. FIG. 23. This may require a few attempts to get the tables in alignment. When the infeed table is flat to the outfeed table, the hex bolts can be tightened to lock the settings.

7. Re-install the covers, lower the outfeed table with fence and guard, and the machine is ready for use.

PLANER TABLE ALIGNMENT

The machine has been factory set before shipping - the planer's table being set parallel to the cutterhead knives. But once the machine has been set in its final location in the shop, the table alignment should be checked to make sure that there has been no movement during its handling.

WARNING: When working on, or near the machine's bed, avoid the risk of personal injury by cuts that may result from touching the knife inserts' sharp edges!

⚠ WARNING THE MACHINE MUST NOT BE PLUGGED IN AND THE POWER SWITCH MUST BE IN THE OFF POSITION UNTIL ALL ADJUSTMENTS ARE COMPLETE.

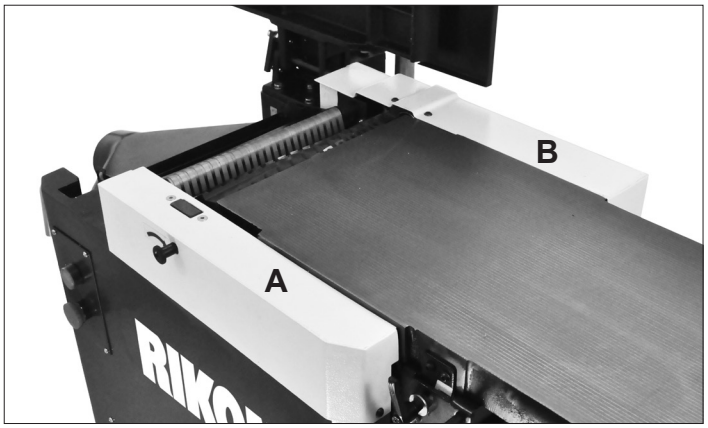


FIG. 21

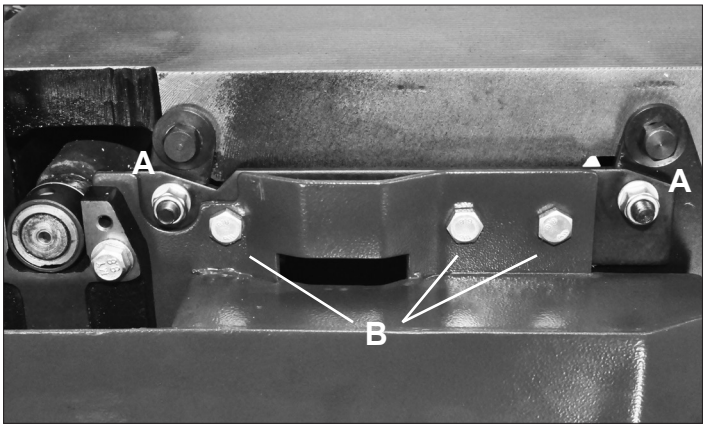


FIG. 22

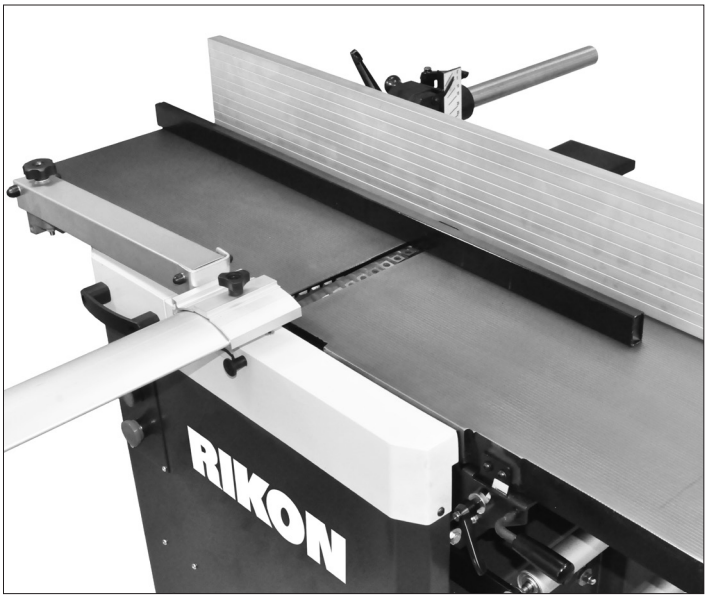


FIG. 23

ADJUSTMENTS

Planer Table Alignment continued from page 14

1. Make sure that the planer/jointer's switch is turned off, and the plug is disconnected from the power source.

2. The outfeed table with the fence and cutterhead guard needs to be lifted up and back into a verticle position. See page 19, step 1 & 2 for full details on this process. The Dust Chute (#30) should be pivoted up onto the infeed table in the planing use position, so adjustments can be made. FIG. 24.

NOTE: The cutterhead is fixed in position and any adjustments must be made through the table's setting.

3. To confirm that the planer table is set parallel to the cutterhead, measurements from the table surface to the underside of the cutterhead are made. The distance from the far right side of the planer's table should be the same as the distance taken at the far left of the table.

4. Place a Gauge Block (FIG. 25), or other measuring tool, onto the planer table, directly under the cutterhead.

5. Raise the table until with the hand wheel until the gauge block makes contact with the cutterhead knife inserts, or the solid body of the cutterhead cylinder.

6. Move the gauge block to the other side of the table to check to see if the gauge block is at the same measurement. If the distance is not the same, then the planer table has to be adjusted to make up this difference.
NOTE: Since the cutterhead is of a helical design, care must be taken to make the measurements at the same spot on the either end of the head. This may require that the cutterhead be rotated so that the gauge block comes in contact with either the knife inserts or body, same as was used on the first measurement taken.

ADJUSTING THE PLANER TABLE

7. The planer table assembly is attached to the cabinet by four Hex Bolts (#394, FIG. 26, A). Next to these bolts are four Hex Socket Screws (#396, B) that can be adjusted to raise an end of the planer table so that it will be parallel with the cutterhead.

8. Slightly loosen the four hex bolts at the corners of the base plate.

9. Depending on which side of the planer's table needs to be raised, turn the hex screws at that side of the base to raise the base/table.

10. Repeat measuring with the gauge block and making adjustments until the table is parallel with the cutterhead.

11. Once the table and cutterhead are parallel, tighten the four hex bolts to secure the fasteners in place.

12. Remove the gauge block from the mouth of the planer and check all parts to confirm the machine is ready for use.

FIG. 24

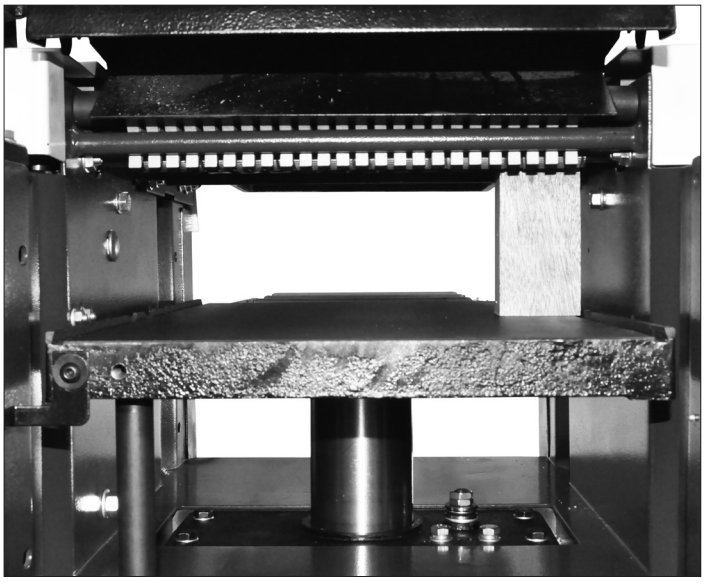


FIG. 25

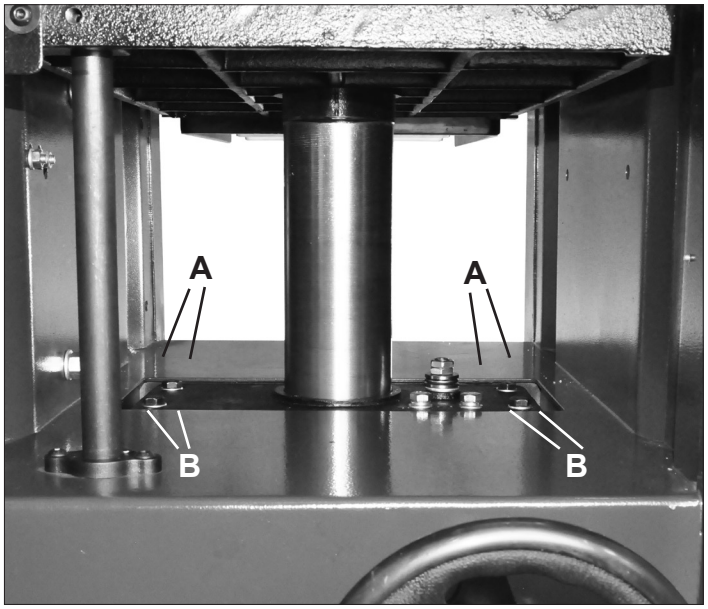


FIG. 26

ADJUSTMENTS

ADJUSTING THE CUTTERHEAD

The Cutterhead that holds the knife inserts is fastened to the machine's cabinet, and is not adjustable. Based on the postion of this main component of the machine, all of the other parts - rollers and tables - are then pre-set by the factory to align with the cutterhead. Should any of the tables or rollers get out of parallel with the cutterhead, they can be adjusted separately following the instructions in this manual.

ADJUSTING THE FEED ROLLERS

The Infeed (#57) and Outfeed (#56) Rollers are pre-set by the factory to align parallel with the cutterhead and knife inserts. These spring loaded rollers are set just below the cutterhead, so that they engage the lumber and move it through the planer. Should an adjustment be required to increase or decrease the amount of downward pressure they exert on the lumber, the following steps are needed.

1. Make sure that the planer/jointer's switch is turned off, and the plug is disconnected from the power source.

2. The outfeed table with the fence and cutterhead guard needs to be lifted up and back into a verticle position. See page 19, step 1 & 2 for full details on this process.

3. With the outfeed table up, the Front Cover (#136, A) and Rear Cover (#131, B) must be removed to access the bolts that will adjust the feed rollers' pressure. FIG. 27.

4. Under the Cutterblock Brackets (#51), the Tightening Rods (#52) hold the compression Springs (#53) in place with the bottom Hex Nuts (#340, FIG. 28, N) The hex nuts must be tightened or loosened with an offset wrench (not supplied).

- By raising the hex nuts UP the threaded rods, the spring is compressed and the downward pressure of its roller is increased upon the lumber being fed through the planer.
- By lowering the hex nuts DOWN the threaded rods, the spring compression is reduced, and its rollers exert less pressure down onto the lumber.

5. Once the rollers are set, re-install the covers, lower the outfeed table with fence and guard, and the machine is ready for use.

ADJUSTING DRIVE BELTS

The cutterhead drive belt and the feedgear drive belt need to be checked periodically and retightened if necessary. Belts will stretch with use, especially when they are new and are breaking in. Both drive belts are located behind the machine's rear cover and side panel. FIG. 29, A & B.

continued on page 17

⚠ WARNING THE MACHINE MUST NOT BE PLUGGED IN AND THE POWER SWITCH MUST BE IN THE OFF POSITION UNTIL ALL ADJUSTMENTS ARE COMPLETE.

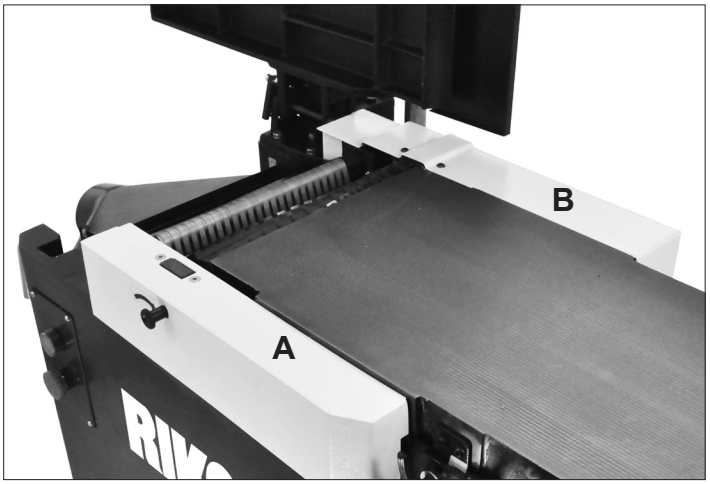


FIG. 27

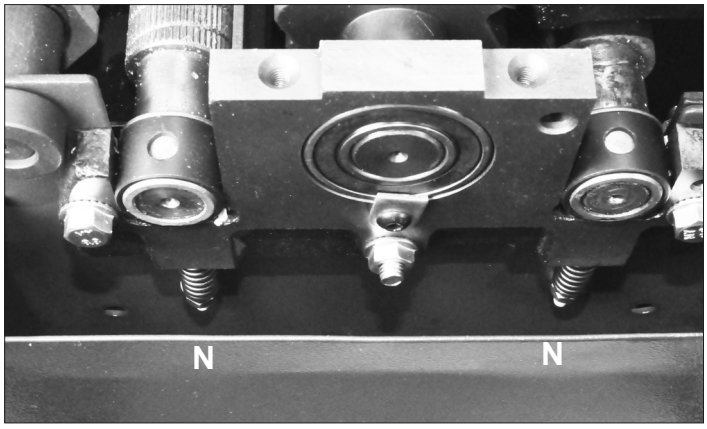


FIG. 28

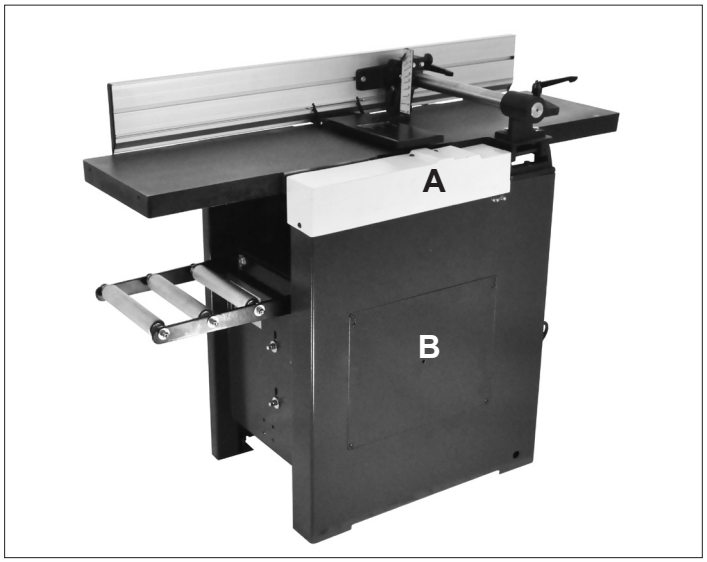


FIG. 29

ADJUSTMENTS

Drive Belt Adjustment continued from page 16

To inspect, adjust or change the drive belts:

1. Make sure that the planer/jointer's switch is turned off, and the plug is disconnected from the power source.

2. Pull the fence forward, and remove the side panel and belt cover to expose the motor, pulleys and belts. FIG. 29.

TENSIONING THE DRIVE BELTS

3. Check the *Cutterhead Drive Belt* (#222, FIG. 30, A) tension with thumb pressure. The drive belt should not give more than 3/8" in the center. FIG. 31.

4. From outside, rear of the machine, loosen the four Nuts (#223, FIG. 32) that secure the motor in place. Lift the motor to slacken the tension on the drive belt, or move it down to increase the belt tension.

5. When the belt tension is correct, tighten the motor mounting nuts that were done in step 4.

6. The *Feed Roller Belt* (#220), FIG. 30, B) is automatically tensioned with the Spring (#248, C) and requires no adjustments.

7. The *Feed Roller Chain* (#228, FIG. 30, D) is factory set and should not require any setting changes. However, to increase or decrease the chain overlap, the Bearing with Sleeve (#230, E) can be adjusted in or out with Bolt & Nut (#233, 229).

NOTE: While the side panel and cutterhead cover are open, remove any chips and dust that may have accumulated with a dust collector or brush.

8. When all belts have been checked and any maintenace has been done, replace the side panel and belt cover and secure them in position with the screws.

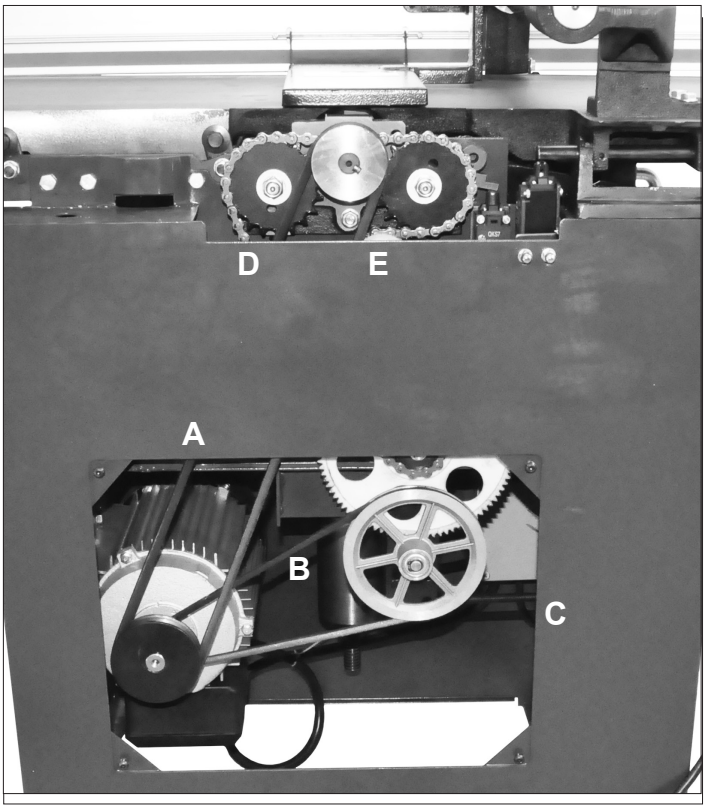


FIG. 30

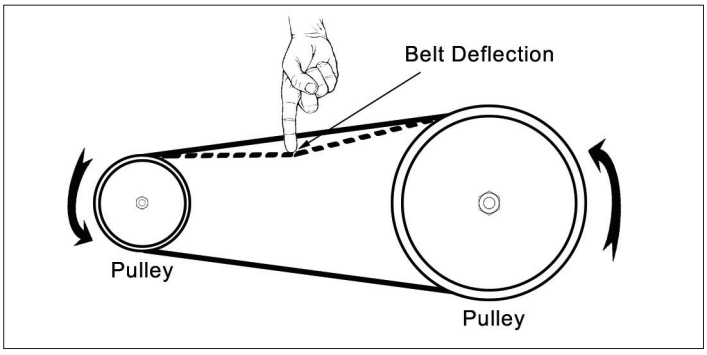


FIG. 31

REPLACING THE DRIVE BELTS

1. To replace the *Drive Belt* (#222), follow the same steps, #3-5 above. Loosen the tension until the belt can be easily removed from the Motor Pulley (#221) and Cutterhead Pulley (#235). Once removed, reverse the steps to install and re-tension the new belt on the pulleys.

2. To replace the *Feed Roller Belt* (#220), the Drive Belt must first be removed. With the motor loose and lifted, there should be enough slack to install a new Feed Roller Belt. If not, the tensioning Spring (#248) can also be un-hooked to allow the Cam Wheel Bracket (#244) to swing loose. Re-fastened the spring once the belt has been installed. Then reverse the steps to install the drive belt and re-tension it on the pulleys.

3. When all work on the belts has been done, replace the side panel and belt cover and secure them in position with the screws.

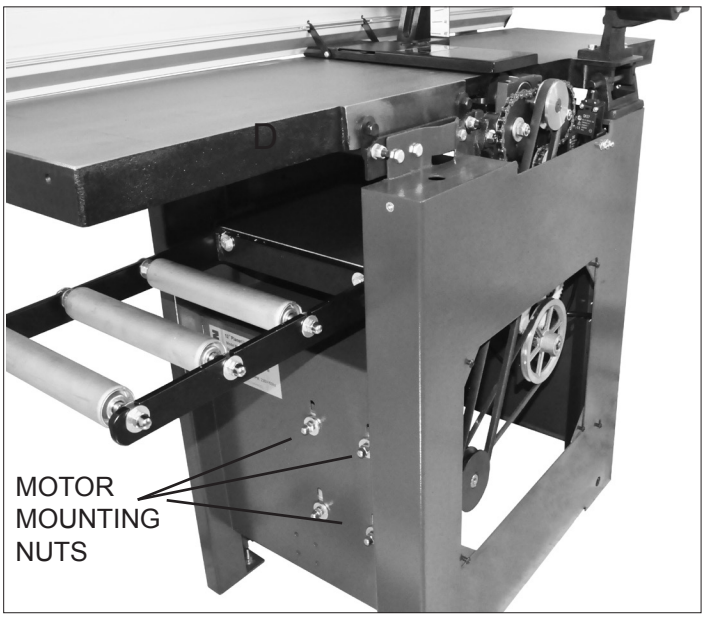


FIG. 32

OPERATION

⚠ WARNING Before turning on the machine, review the safety precautions listed on pages 3 to 6. Make sure that you fully understand the features, adjustments and capabilities of the machine that are outlined throughout this manual.

JOINTER OPERATION

The function of the jointer is to surface plane flat, one side or edge of a board/workpiece.

To use the jointer:

- Place the workpiece on top of the right, infeed table.
- The workpiece will be cut on its underside by the rotating cutterhead knives. FIG. 34.
- When jointing, the feeding direction of the workpiece is right-to-left over the cutterhead. FIG. 33.

NOTE: Workpiece dimensions:

- Length: use a push stick to feed boards shorter than 12" ; for lumber over 60" use support rollers.
- Width: maximum 12".
- Thickness: minimum 1/4". The use of push blocks is necessary when face planing thin material.
- Depth of Cut: maximum 1/8". Multiple cuts of 1/16" or less, produce better finish results.

1. Assume the proper operating position: stand to the side of the infeed table with feet apart for stability through the whole cutting process. FIG. 33.
2. Set the jointer fence position and angle as required.
3. Set the depth of cut / thickness.
4. Place the workpiece against the jointer fence for support through the cutting action.
5. Adjust the cutterhead guard for user protection. FIG. 34 and 35.

NOTE: When cutting narrow board edges or workpieces more than 3" thick, set the cutterhead guard so that it is close to the side against the workpiece. FIG. 35.

- For planing the face of a plank or workpieces up to 3" thick, lower the cutterhead guard to just above the workpiece. Adjust the guard to distances not exceeding the dimensions recommended below, and in FIG. 34:
  - Rear edge (A) – workpiece maximum 1/8" (3mm).
  - Front edge (B) – workpiece maximum 3/32" (2mm).

6. Turn the machine on and place the workpiece on the infeed table. Feed the workpiece toward the cutterhead, exerting downward pressure until the workpiece clears the cutterhead on the outfeed table side. Always keep your hands away from the cutterhead to avoid any accidents.

- Run boards at different positions along the width of the cutterhead to utilize the full length of the cutting knives. Jointing in one area of the cutterhead, will quickly dull the knives in that area.

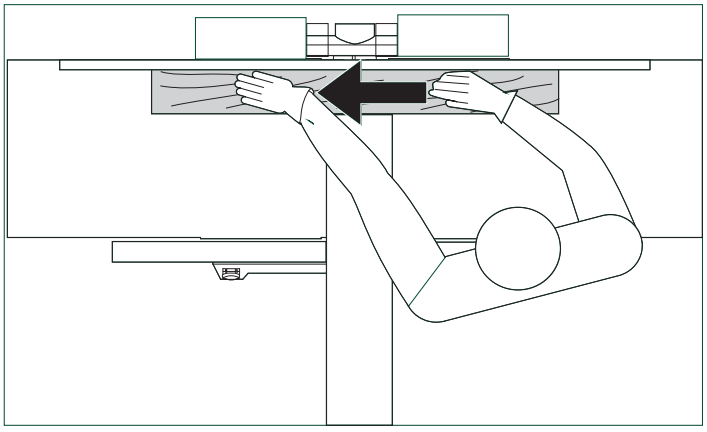


FIG. 33

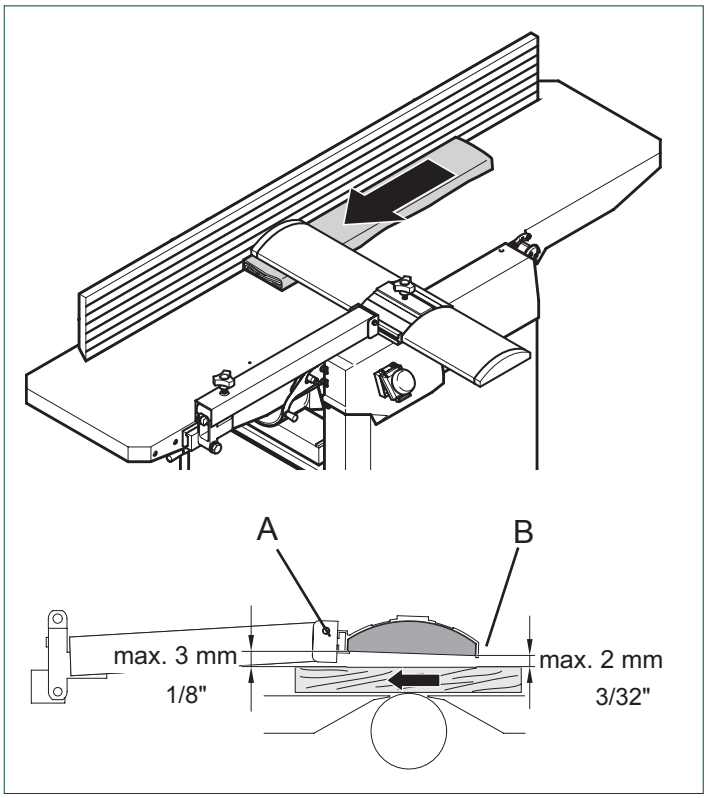


FIG. 34

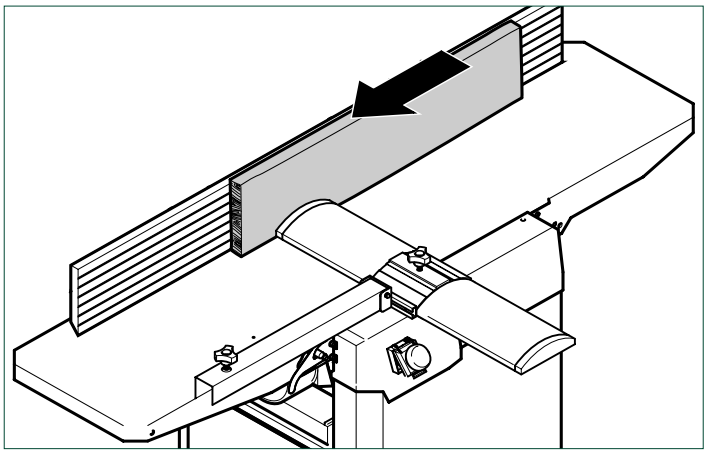


FIG. 35

PLANER OPERATION

Thickness planing is used to reduce a workpiece with one already surface planed surface to a desired thickness.

To use the planer, the upper, outfeed jointer table & fence assembly must be tilted up and out of the way. FIG. 37.

1. Pull the jointer fence fully forward, and tighten the locking handle (FIG. 36, A)

2. Twist the clamping Handle (#143, FIG. 37, B) up and then pull it outward to release the outfeed table. Swing the table (C) and fence assembly up and to the back of the machine. Make sure the outfeed table's locking Bracket (#147, D) is engaged to keep the table in the upward / open position. **NOTE:** When closing the outfeed table, don't forget to release the locking bracket, or damage to the machine may occur.

3. Pivot the Dust Chute (#30, FIG. 37, E) up and over the jointer infeed table where it will automatically lock in place with the Locking Pin (F). Attach your dust collector's 4" hose to the dust port before any planing is done.

⚠ WARNING It is extremely important that a dust collection system is used with this planer to eliminate harmful airborne dust, prevent the build-up of chips that may jam the roller system in the cutterhead, and to keep the working area clean of debris.

To use the planer:

- The board surface that has been already jointed flat rests down onto the planer's table.
- The board will be cut on its upper surface by the cutterhead as it passes through the planer.
- When planing, the feeding direction of the workpiece is left-to-right under the cutterhead. FIG. 38.

NOTE: Workpiece dimensions for planing;

- Length: minimum 12"; for lumber over 60" use roller supports.
- Width: maximum 12".
- Thickness: minimum 1/4"; maximum 8".
- Depth of Cut: maximum 1/8". Multiple cuts of 1/16" or less, produce better finish results.

1. To feed the workpiece into the machine, assume proper operating position, FIG. 38. Stand offset to one side of the feed opening to avoid any kick-back, should it occur. Do not push the lumber once the infeed roller has been engaged. Let the infeed roller move the workpiece into the planer at its own pace.

2. To remove the workpiece from the machine, position yourself offset to one side of the outfeed opening. FIG. 39. Do not pull the lumber as it exits the machine. Let the outfeed roller move the workpiece out of the planer at its own rate, but support the lumber as it extends past the extension rollers, if needed.

continued page 20

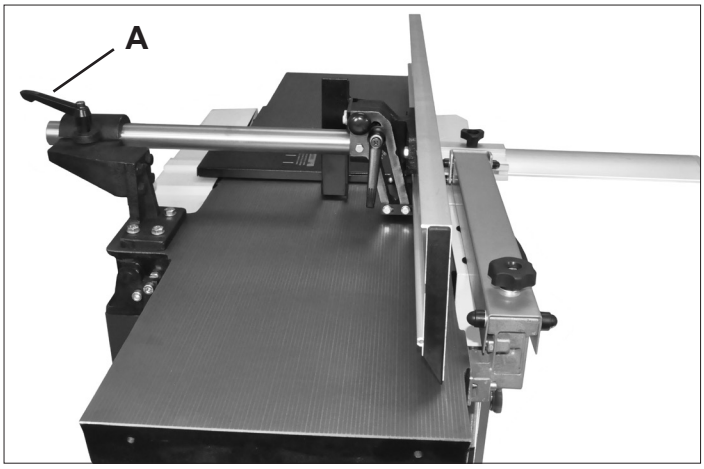


FIG. 36

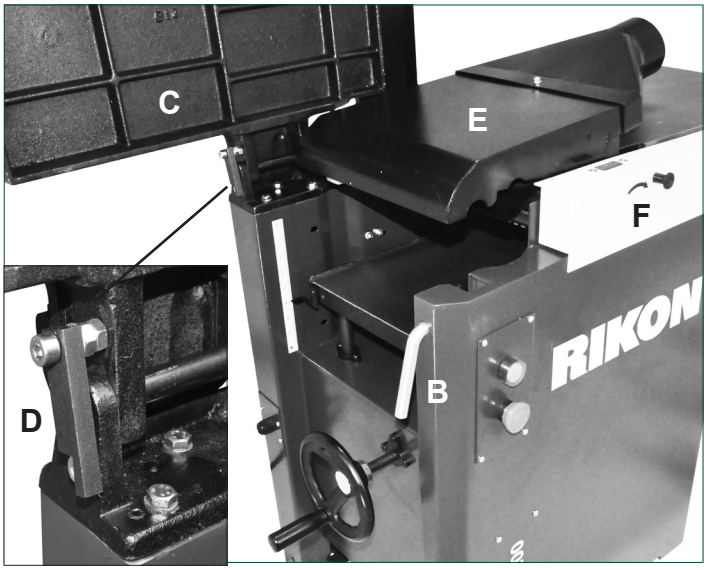


FIG. 37

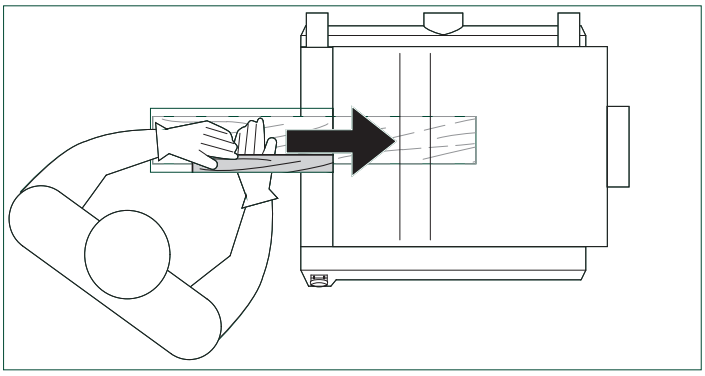


FIG. 38

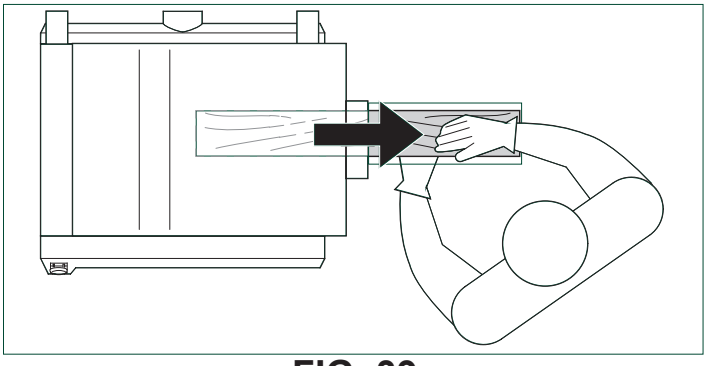


FIG. 39

OPERATION

Planer Operation continued from page 19

3. Set planing thickness. Measure your board's thickness and set the planer to this measurement, or 1/16" under this figure. For the initial pass, you do not want to take off an excessive amount of stock (over 1/8"), or damage to the planer may result. Repeated passes through the planer will get you to your final desired board thickness.

4. Feed boards slowly and straight into the planer. Boards will be automatically fed through the planer by the infeed and outfeed rollers.

- Guide workpieces straight into and through the planer. The cutting action of the cutterhead may try to turn a board being surfaced, so slight controlling of the board may be necessary. Do not push the board forward, let the planer's rollers automatically move the board through the machine.

5. Remove the board from the planer. Ref: Step 2, Do not pull the lumber as it exits the machine. Let the out-feed roller move the workpiece out of the planer at its own rate, but support the lumber as it extends past the extension rollers, if needed.

- Make sure that there are no loose knots, nails, staples, dirt or foreign objects in the wood to be planed.

- Surface wood in the same direction of the grain, not across the grain. Never plane end cuts or end grain.

- Do not plane boards that are less than 12" long. Short boards should be planed end to end with other boards to prevent kick-back and snipe.

- Boards longer than 60" should have additional support as they enter and exit the planer, so that they do not tip up or down, causing snipe on the ends.

- Run boards through the planer at different positions along the width of the bed to utilize the full length of the cutting knives. Planing only in the center, or through one side of the planer, will quickly dull the knives in that area.

- To thickness plane stock with surfaces are not parallel, use suitable feeding aids (make fitting templates).

SNIPE

The term 'snipe' refers to the depression that may occur at the front or rear of a board during planing. It is caused by uneven pressure on the cutterhead when a board is fed into the planer, or when exiting. FIG. 40.

Avoid snipe by keeping your lumber firmly down onto the planer bed at the beginning of the cut, and also at the end of the cutting action, as the lumber exits the planer.

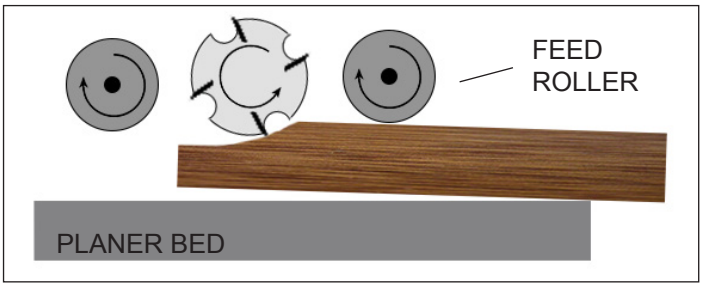


FIG. 40

SQUARING A WORKPIECE EXAMPLE

1. FIG. 22, A - On the jointer, surface side 1 flat.

2. B - After surfacing side 1, turn the workpiece 90º so that side 1 now rests against the fence. Joint side 2 flat. The workpiece will now have two sides at 90° to eachother.

3. C - Using the planer, run the workpice with side 1 positioned flat against the planer bed. The opposite side 3 can then be cut, and it will then be parallel to side 1.

4. D - Position side 2 flat against the planer bed, and side 4 will be planed flat, and be parallel to to side 2.

The workpiece will now be square, having four flattened surfaces and four square edges.

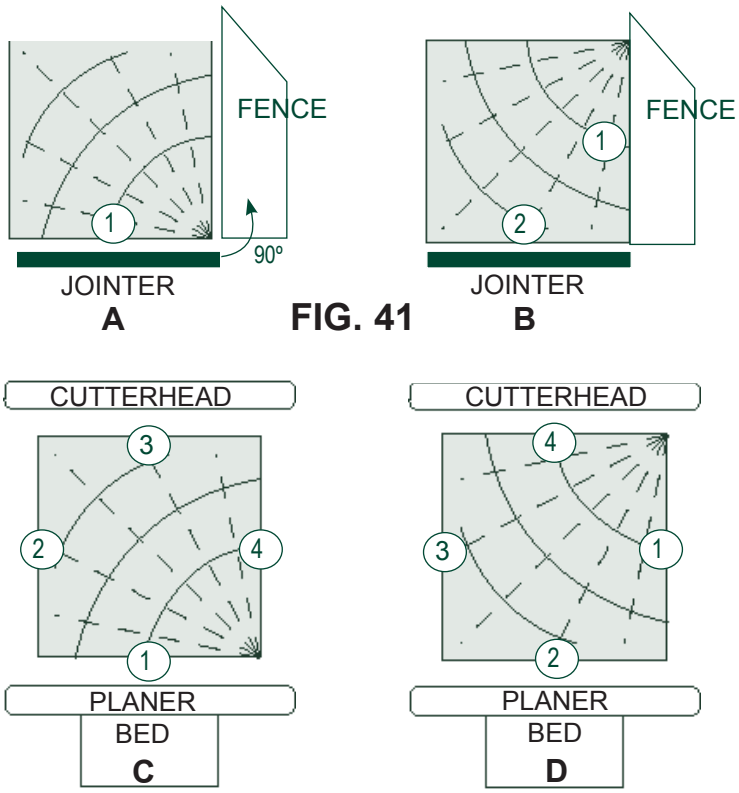


FIG. 41

MAINTENANCE

⚠ WARNING: Turn the power switch “OFF” and disconnect the plug from the outlet prior to adjusting or maintaining the machine. DO NOT attempt to repair or maintain the electrical components of the motor. Contact a qualified service technician for this type of maintenance.

1. Before each use:

- Check the power cord and plug for any wear or damage.

- Check for any loose screws or hardware.

- Check the area to make sure it is clear of any misplaced tools, lumber, cleaning supplies, etc. that could hamper the safe operation of the planer.

2. To avoid a build-up of wood dust, regularly clean all parts of the machine using a soft cloth, brush or compressed air. A general cleaning should be done after every use to avoid future problems and ensure the machine is in ready condition for the next time it is used.

WARNING: If blowing sawdust, wear proper eye protection to prevent debris from blowing into eyes.

3. Check the knives to make sure that they are not loose from the cutterhead, dull or nicked. Making sure that they are in proper operating condition will ensure that the quality of your surfaced lumber will be the best possible.

4. Lubricate all bearing points and chains regularly with a few drops of light motor oil. Cutterhead ball bearings are lifetime lubricated, sealed, and do not need any further care. Keep the drive belts free of oil and grease.

5. Clean the planer bed columns on a regular basis to prevent the build-up of wood chips and dust. Treat the posts with a dry lubricant spray. Do not use ordinary oil which will collect dust and hamper the operation of the machine.

6. Keep the jointer and planer tables free of resin and rust. Clean them regularly with a non-flammable solvent, then coat with a light film of dry lubricant spray, or wax, to enhance passage of workpiece on/over the tables.

WARNING: When cleaning or working on the tables, avoid the risk of personal injury by cuts that may result from touching the knife inserts' sharp edges! Lower the planer table to its maximum 'down' position, so that there is ample distance between the table and the cutterhead's sharp inserts for your safety.

7. Clean the feed rollers with a soft rag, and non-flammable solvent if there is resin build-up on the metal rollers. Do not apply solvents on a 'rubber' coated roller, as it may affect the material. Be careful to keep hands away from the sharp cutterhead knife inserts. Do not apply any lubricant to the rollers as they must 'grab' the lumber to move it through the planer and so must not slip.

8. Check the anti-kickback fingers to make sure that they are clean of any dust or resin, so that they swing freely. Lubricate only with a dry lubricant, never oil or grease.

9. Check the belt tension after the first 3-5 hrs. of operation to ensure that the belts have not become stretched and loose from their 'breaking in' use. See page 17 for instructions.

NOTES

Use this section to record maintenance, service and any calls to Technical Support:

TROUBLESHOOTING

⚠ WARNING **FOR YOUR OWN SAFETY, ALWAYS TURN OFF AND UNPLUG THE MACHINE BEFORE CARRYING OUT ANY TROUBLESHOOTING.**

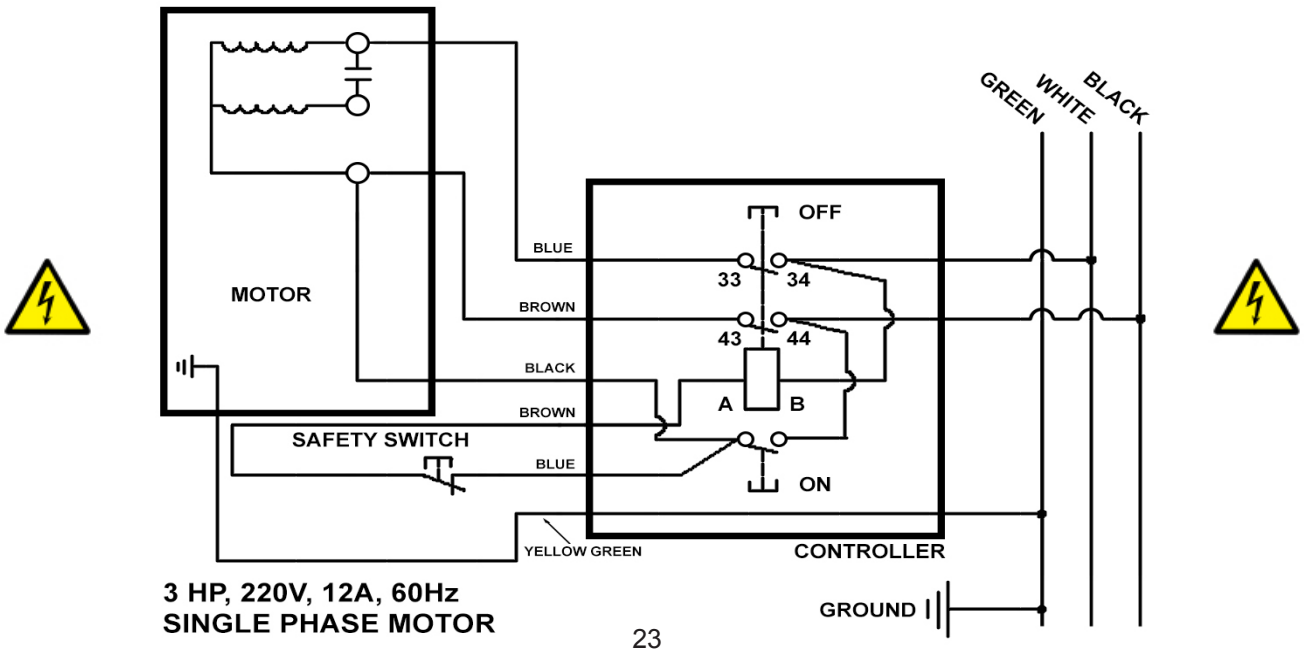
SYMPTOM	POSSIBLE CAUSES	SOLUTIONS
Machine will not start.	1. No power 2. Blown fuse 3. Main on/off switch or Micro switches are not functioning 4. Motor failure	1. Check power source, plug and wiring. 2. Check fuse, replace if it is blown. 3. Check position of the switches. Contact local dealer for repair or replacement. 4. Inspect motor for failed components. Contact Dealer for repair or replacement.
Circuit Breakers trip and /or Fuses are blown	1. Wrong circuit size for the machine 2. Motor is overloaded under strain from taking too heavy of cut 3. Use of an extension cord	1. Check circuit/fuse rating and amps of the motor. Install CORRECT rated breaker/fuse. 2. Take lighter cuts in planing lumber. 3. No extension cord, or use heavier gauge cord.
Machine bogs down in the cut	1. Excessive depth of cut 2. Feed rate is too fast 3. Knives are dull	1. Decrease depth of cut. 2. Reduce feed rate. 3. Replace or sharpen knives.
Cutting and planer feed rate is not consistant	1. Belts are loose 2. Chips and dust build-up on parts	1. Check pulleys and belts for tension & wear. 2. Unplug machine and clean all parts.
TROUBLESHOOTING THE JOINTER		
Jointer fence is not accurate at 90° or 45°	1. Fence stops are not properly adjusted 2. Locking handles are loose	1. Readjust the fence stops. 2. Check all handles to make sure that they are properly tightened before starting the machine.
'Chatter' marks on lumber	1. Feed rate is too fast	1. Slow the feed rate down.
Cutterhead slows down when jointing	1. Feed rate is too fast 2. Downward pressure on the cutterhead knives is too great	1. Slow down feeding the wood over the cutterhead. 2. Apply less downward pressure
Small raised lines are running along the surface	1. Knives are nicked or broken	1. Rotate insert knives to new sharp edges.
Jointed stock is concave on the back end of the board	1. Knives are set higher than the outfeed table	1. Raise the outfeed table level with the cutterhead & knives.
Jointed stock is concave on the front end of the board	1. Outfeed table is set higher than the knives	1. Lower the outfeed table level with the cutterhead & knives.
Stock is concave in the middle of the board	1. Table is out of level	1. Raise the table ends.
Milled surface is torn - also called 'chip out' or 'tear out'	1. Cutting against the grain 2. Cut is too deep 3. Knives are dull	1. Cut with the grain. For figured woods, take shallow cuts to minimize tear out. 2. Reduce cutting depth to 1/16" or less. 3. Rotate insert knives to new sharp edges.
Milled surface grain is rough, raised or fuzzy	1. Lumber has a high moisture content 2. Knives are dull	1. Reduce the moisture content by drying it, or switch to other properly seasoned lumber. 2. Rotate insert knives to new sharp edges.
Milled surface is glossy	1. Cutting depth is too shallow 2. Knives are dull 3. Feed rate is too slow	1. Increase depth of cut slightly. 2. Rotate insert knives to new sharp edges. 3. Increase feed rate.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSES	SOLUTIONS
TROUBLESHOOTING THE PLANER		
Poor feeding of lumber through the planer	1. Drive belt is worn or broken 2. Drive belt tension spring is broken 3. Lumber sticking on planer's table 4. Feed rollers not applying enough pressure on lumber	1. Check and replace as necessary. 2. Check tension and/or replace the spring. 3. Clean the table and apply silicone based lubricant to reduce friction. 4. Adjust the feed roller pressure.
Not planing lumber to a uniform thickness	1. Planer table is not level to cutterhead	1. Adjust table and/or cutterhead as needed.
Board thickness does not match scale markings	1. Depth of cut scale not set correct	1. Adjust scale to match board thickness
Small raised lines are running along the surface	1. Knives are nicked or broken	1. Rotate insert knives to new sharp edges.
Snipe on board ends (NOTE: Snipe can be reduced, but not fully eliminated)	1. Feed rollers not set properly 2. Lumber not supported when fed into or exiting the planer 3. Short boards not butted	1. Adjust feed roller height for applying pressure onto lumber to keep flat on table. 2. Support long boards with roller stands. 3. Run boards butt end to end through planer
Planed surface is torn - also called 'chip out' or 'tear out'	1. Cutting against the grain 2. Cut is too deep 3. Knives are dull	1. Cut with the grain. For figured woods, take shallow cuts to minimize tear out. 2. Reduce cutting depth to 1/16" or less. 3. Rotate insert knives to new sharp edges.
Planed surface grain is rough, raised or fuzzy	1. Lumber has a high moisture content 2. Knives are dull	1. Reduce the moisture content by drying it, or switch to other properly seasoned lumber. 2. Rotate insert knives to new sharp edges.
Planed surface is glossy	1. Cutting depth is too shallow 2. Knives are dull 3. Feed rate is too slow	1. Increase depth of cut slightly. 2. Rotate insert knives to new sharp edges. 3. Increase feed rate.

WIRING DIAGRAM

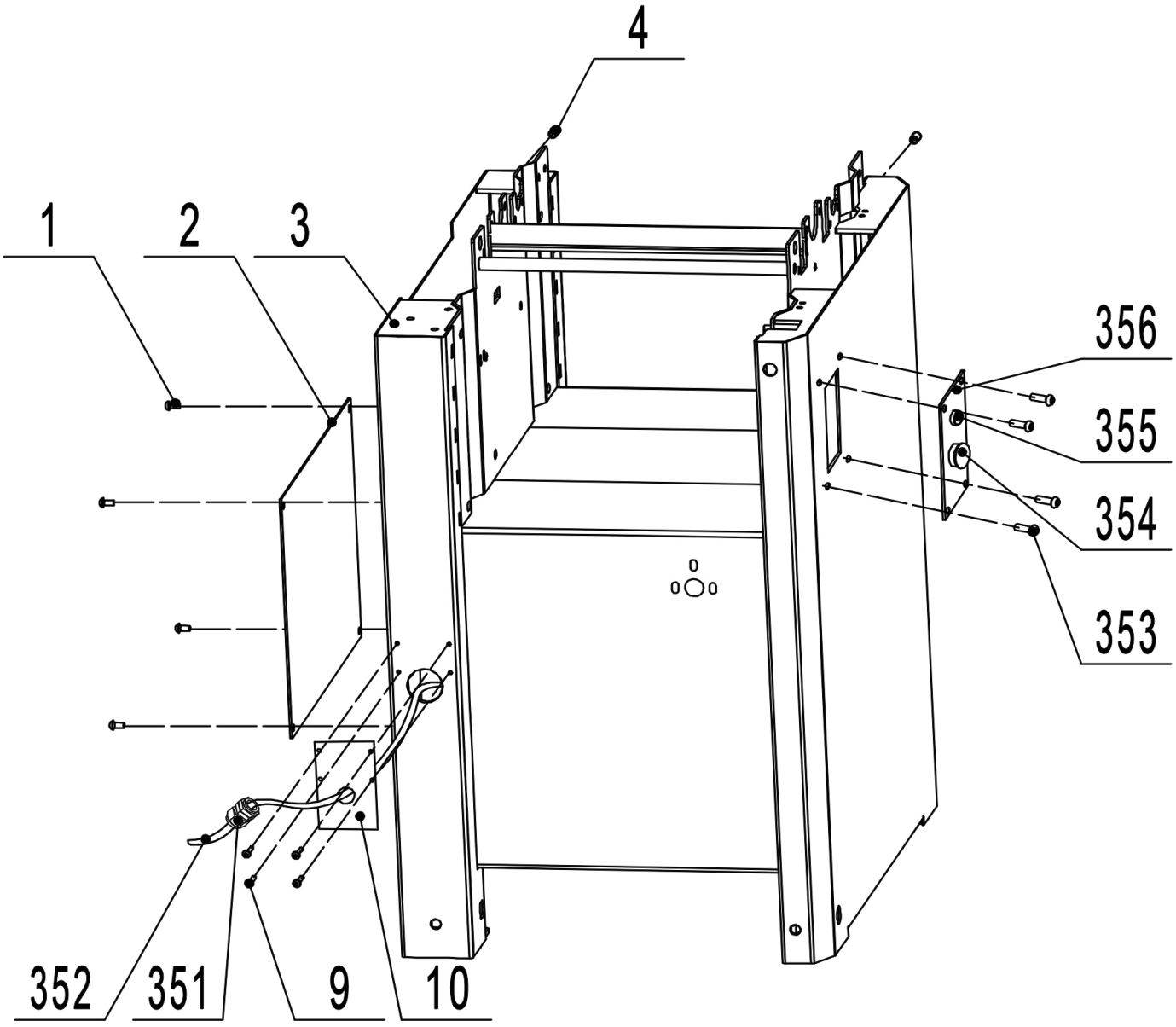
⚠ WARNING: This machine must be grounded. Replacement of the power supply cable should only be done by a qualified electrician. See page 5 for additional electrical information.



3 HP, 220V, 12A, 60Hz
SINGLE PHASE MOTOR

PARTS EXPLOSION & PARTS LIST

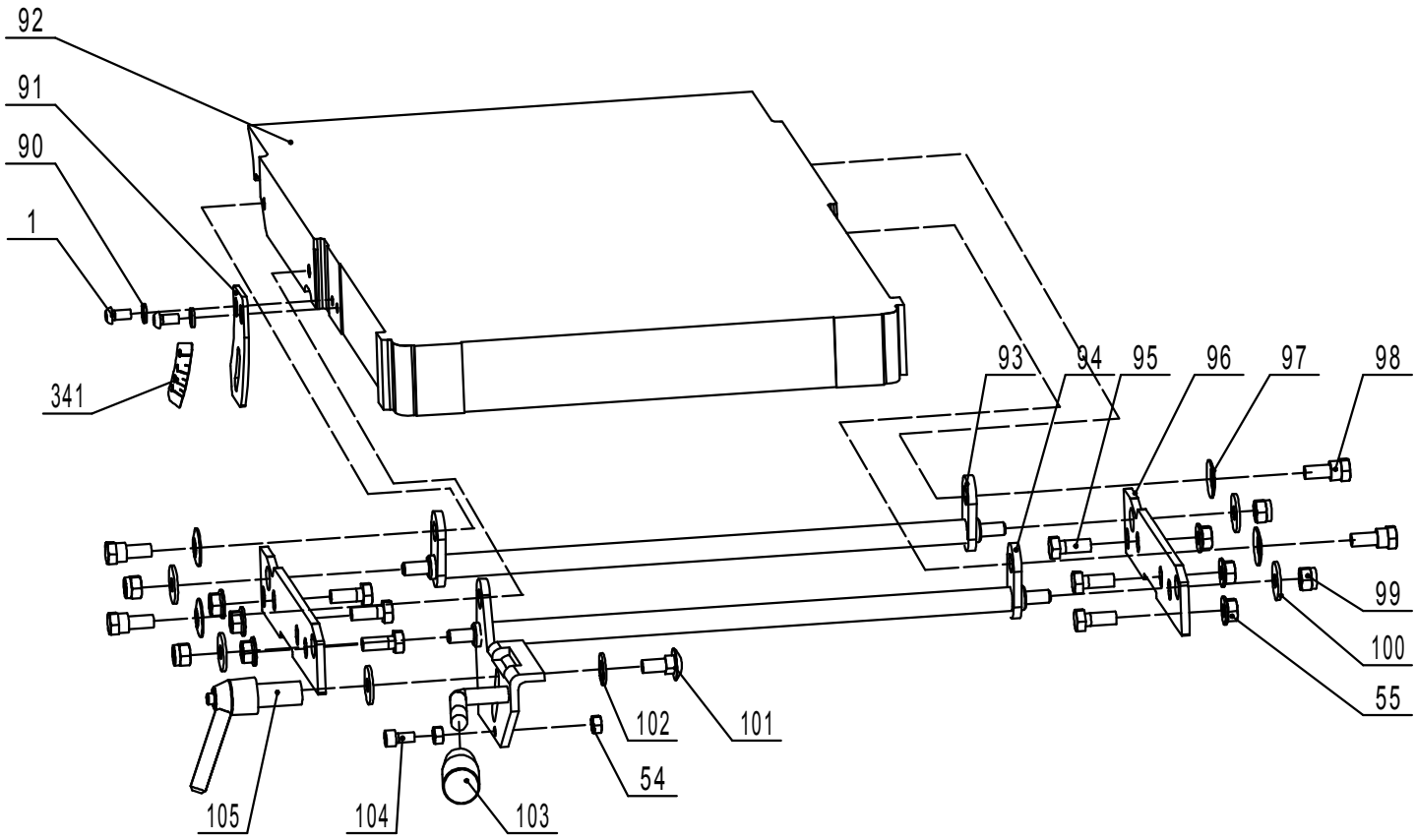
CABINET ASSEMBLY



KEY NO.	DESCRIPTION	MFG. PART NO.	KEY NO.	DESCRIPTION	MFG. PART NO.
1	Pan Head Screw M6x12	P25-200H-1	351	Cable Clamp	P25-200H-351
2	Cover Plate	P25-200H-2	352	Power Cable	P25-200H-352
3	Cabinet	P25-200H-3	353	Pan Head Screw M4x6	P25-200H-353
4	Rivet Nut M6x15	P25-200H-4	354	OFF Switch	P25-200H-354
9	Pan Head Screw M6x12	P25-200H-9	355	ON Switch	P25-200H-355
10	Plate	P25-200H-10	356	Switch Box Plate	P25-200H-356

NOTE: The specifications, photographs, drawings and information in this manual represent the current model when the manual was prepared. Changes and improvements may be made at any time, with no obligation on the part of Rikon Power Tools, Inc. to modify previously delivered units. Reasonable care has been taken to ensure that the information in this manual is correct, to provide you with the guidelines for the proper safety, assembly and operation of this machine.

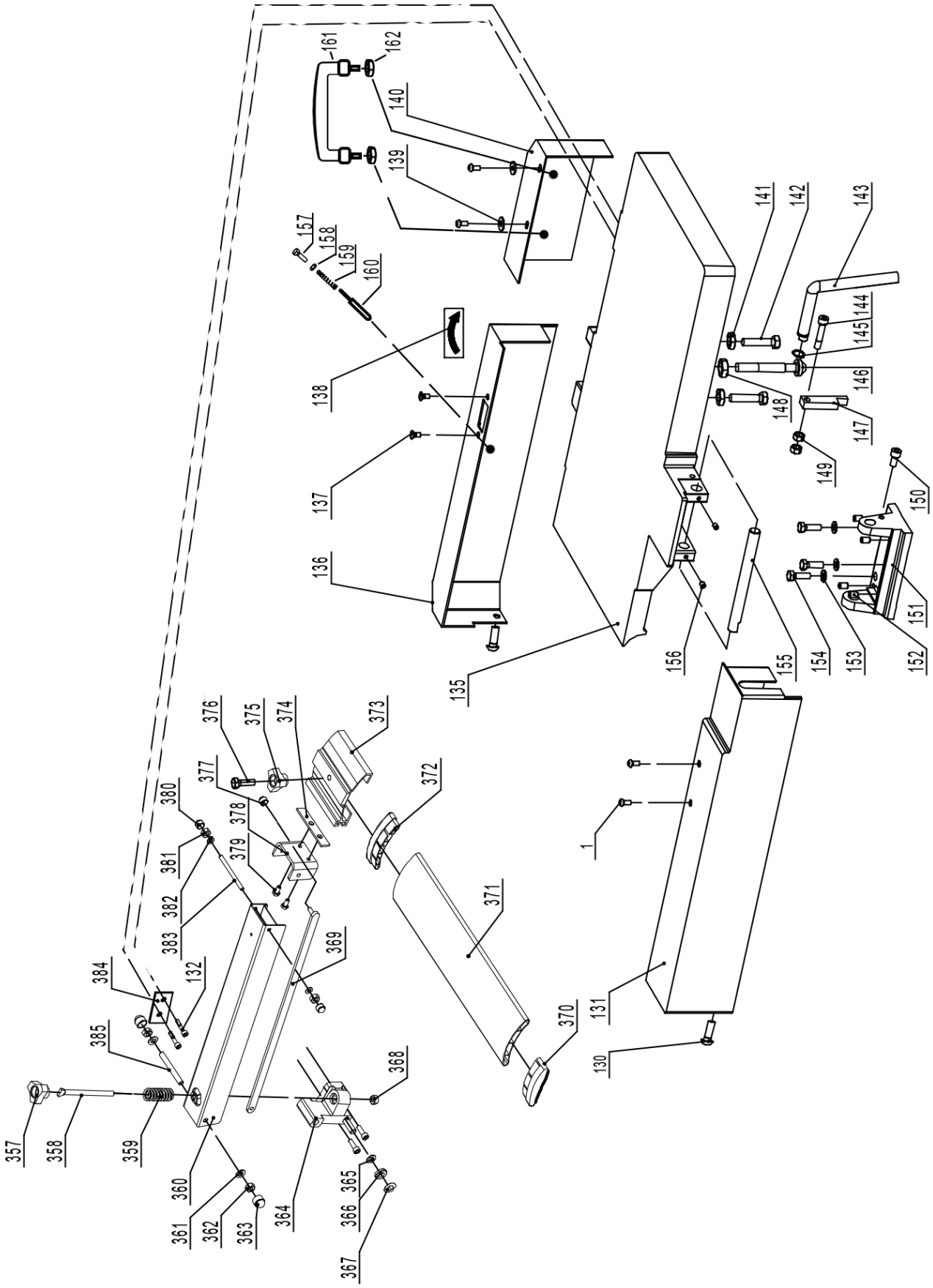
INFEED TABLE ASSEMBLY



KEY NO.	DESCRIPTION	MFG. PART NO.	KEY NO.	DESCRIPTION	MFG. PART NO.
1	Screw M6x12	P25-200H-1	97	Spring Washer	P25-200H-97
54	Nut	P25-200H-54	98	Carriage Bolt	P25-200H-98
55	Flange Nut	P25-200H-55	99	Lock Nut M8	P25-200H-99
90	Flat Washer	P25-200H-90	100	Flat Washer	P25-200H-100
91	Scale Plate	P25-200H-91	101	Carriage Bolt	P25-200H-101
92	Infeed Table	P25-200H-92	102	Flat Washer	P25-200H-102
93	Front Shaft	P25-200H-93	103	Knob	P25-200H-103
94	Handle Shaft	P25-200H-94	104	Hex Socket Head Screw	P25-200H-104
95	Hex Bolt	P25-200H-95	105	Locking Handle	P25-200H-105
96	Lift Bracket	P25-200H-96	341	Scale	P25-200H-341

NOTE: Please reference the Manufacturer's Part Number when calling for Replacement Parts.
For Parts under Warranty, the Serial Number of your machine is required.

OUTFEED TABLE ASSEMBLY

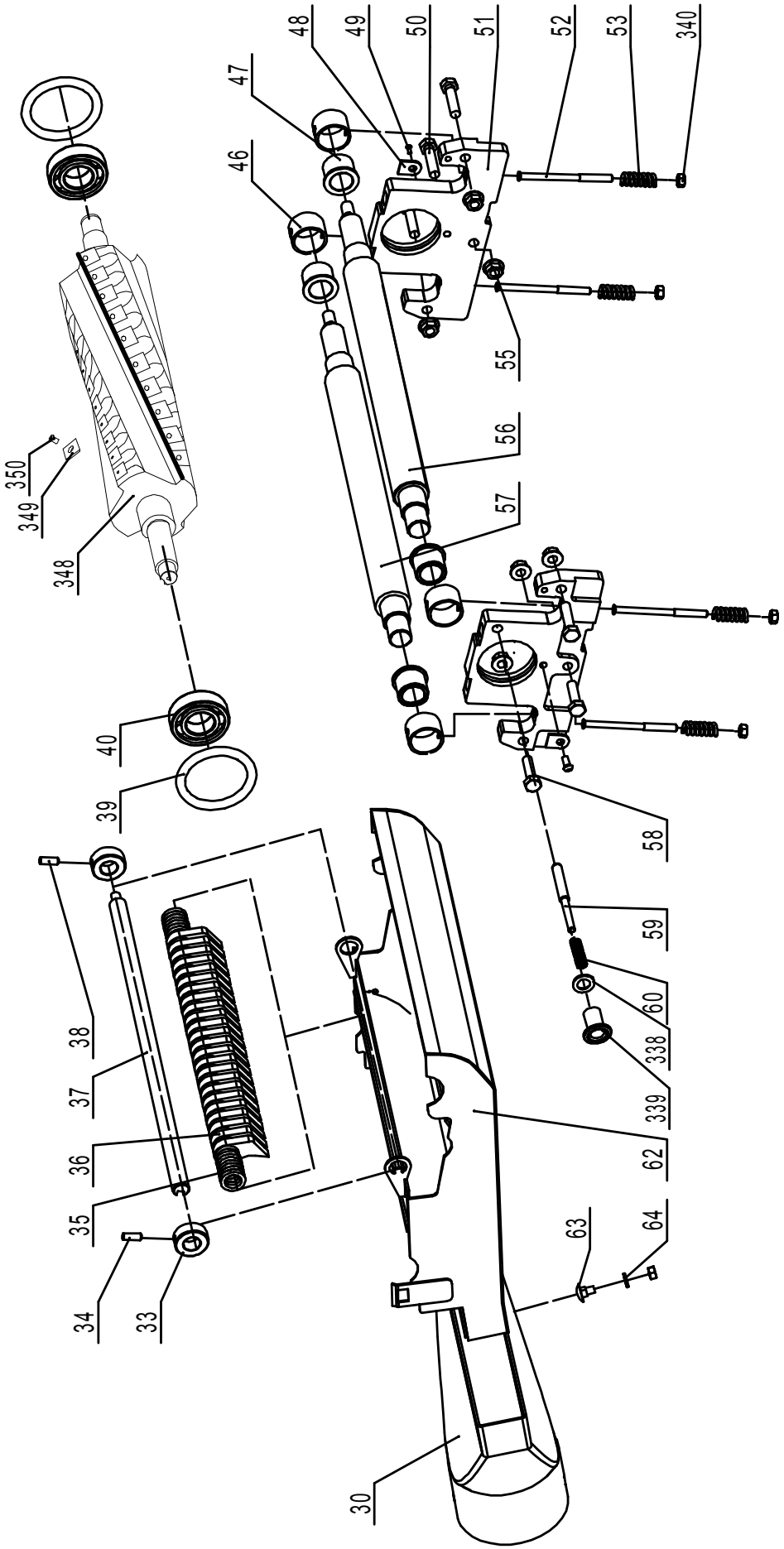


NOTE: Please reference the Manufacturer's Part Number when calling for Replacement Parts.
For Parts under Warranty, the Serial Number of your machine is required.

OUTFEED TABLE ASSEMBLY

KEY NO.	DESCRIPTION	MFG. PART NO.
1	Screw M6x12	P25-200H-1
130	Screw M6x16	P25-200H-130
131	Right Cover	P25-200H-131
132	Screw M6x40	P25-200H-132
135	Infeed Table	P25-200H-135
136	Left Cover	P25-200H-136
137	Screw M6x12	P25-200H-137
138	Rotation Label	P25-200H-138
139	Flat Washer	P25-200H-139
140	Left Bracket	P25-200H-140
141	Hex Nut	P25-200H-141
142	Special Bolt	P25-200H-142
143	Rear Handle	P25-200H-143
144	Hex Socket Head Screw	P25-200H-144
145	Retaining Ring	P25-200H-145
146	Locking Table Bar	P25-200H-146
147	Bracket	P25-200H-147
148	Hex Nut M12	P25-200H-148
149	Hex Nut M8	P25-200H-149
150	Hex Socket Head Screw	P25-200H-150
151	Mounting Base	P25-200H-151
152	Hex Socket Set Screw	P25-200H-152
153	Flat Washer	P25-200H-153
154	Hex Bolt M8x25	P25-200H-154
155	Shaft	P25-200H-155
156	Set Screw M6x8	P25-200H-156
157	Knob	P25-200H-157
158	Washer	P25-200H-158
159	Spring	P25-200H-159
160	Rod	P25-200H-160
161	Handle	P25-200H-161
162	Nut	P25-200H-162
357	Handle	P25-200H-357
358	Threaded Rod	P25-200H-358
359	Spring	P25-200H-359
360	Arm	P25-200H-360
361	Washer	P25-200H-361
362	Hex Nut M8	P25-200H-362
363	Nut Cap	P25-200H-363
364	Bracket	P25-200H-364
365	Washer	P25-200H-365
366	Washer	P25-200H-366
367	Washer	P25-200H-367
368	Hex Nut M8	P25-200H-368
369	Draw Bar	P25-200H-369
370	End Cap	P25-200H-370
371	Cutterhead Guard	P25-200H-371
372	End Cap	P25-200H-372
373	Sliding Sleeve	P25-200H-373
374	Locking Bracket	P25-200H-374
375	Handle	P25-200H-375
376	Nylon Screw	P25-200H-376
377	Hex Nut M6	P25-200H-377
378	Bracket	P25-200H-378
379	Hex Bolt M5x10	P25-200H-379
380	Nut Cap	P25-200H-380
381	Hex Nut M6	P25-200H-381
382	Nylon Washer	P25-200H-382
383	Shaft	P25-200H-383
384	Plate	P25-200H-384
385	Shaft	P25-200H-385

CUTTERHEAD ASSEMBLY

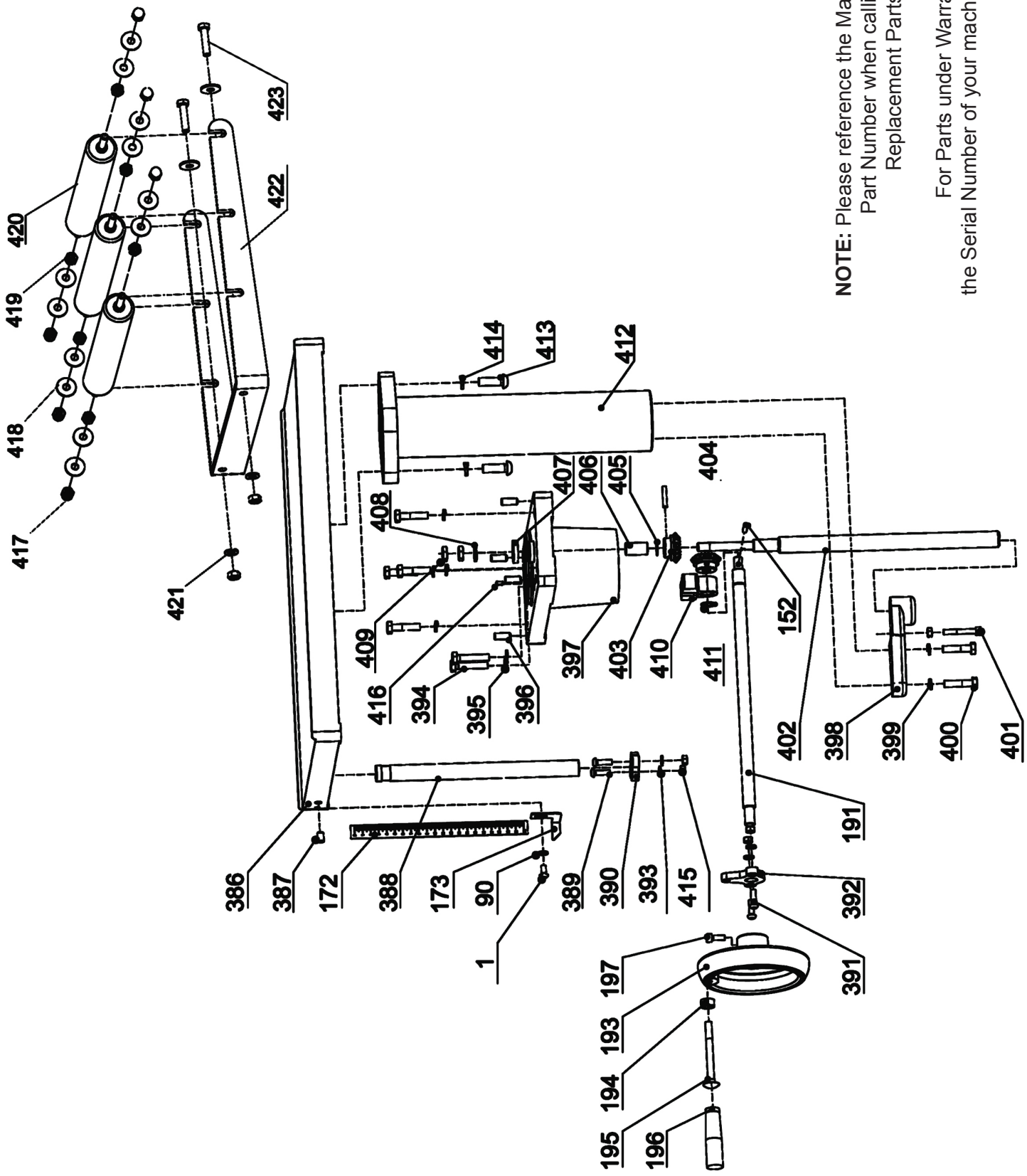


CUTTERHEAD ASSEMBLY

KEY NO.	DESCRIPTION	MFG. PART NO.
30	Dust Port Assembly	P25-200H-30
33	Tube	P25-200H-33
34	Hex Socket Set Screw	P25-200H-34
35	Adjusting Washer	P25-200H-35
36	Anti-Kickback Fingers	P25-200H-36
37	Shaft	P25-200H-37
38	Hex Socket Set Screw	P25-200H-38
39	Rubber Washer	P25-200H-39
40	Bearing	P25-200H-40
46	Mounting Tube	P25-200H-46
47	Tube	P25-200H-47
48	Bearing Bracket	P25-200H-48
49	Hex Bolt M6x12	P25-200H-49
50	Hex Bolt M8x30	P25-200H-50
51	Cutterhead Bracket	P25-200H-51
52	Tighting Rod	P25-200H-52
53	Spring	P25-200H-53
55	Flange Nut	P25-200H-55
56	Outfeed Roller	P25-200H-56
57	Infeed Roller	P25-200H-57
58	Hex Bolt M8x35	P25-200H-58
59	Roll Pin	P25-200H-59
60	Spring	P25-200H-60
62	Dust Collector	P25-200H-62
63	Carriage Bolt	P25-200H-63
64	Flat Washer	P25-200H-64
338	Washer	P25-200H-338
339	Knob	P25-200H-339
340	Locking Nut	P25-200H-340
348	Helical Cutterhead	P25-200H-348
349	Knife Insert	P25-200H-349
350	Screw	P25-200H-350

NOTE: Please reference the Manufacturer's Part Number when calling for Replacement Parts.
For Parts under Warranty, the Serial Number of your machine is required.

PLANER TABLE ASSEMBLY



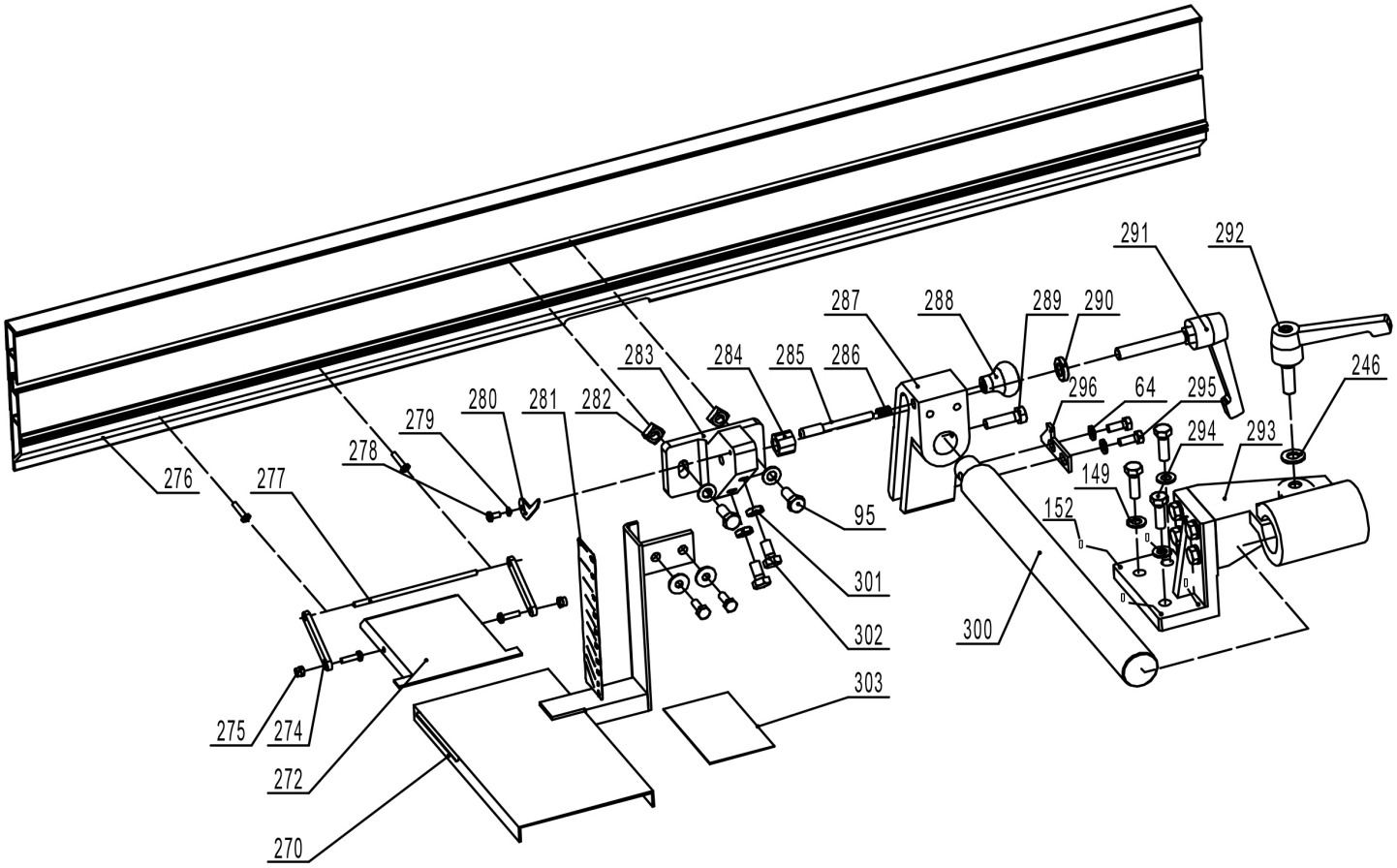
NOTE: Please reference the Manufacturer's Part Number when calling for Replacement Parts.

For Parts under Warranty, the Serial Number of your machine is required.

PLANER TABLE ASSEMBLY

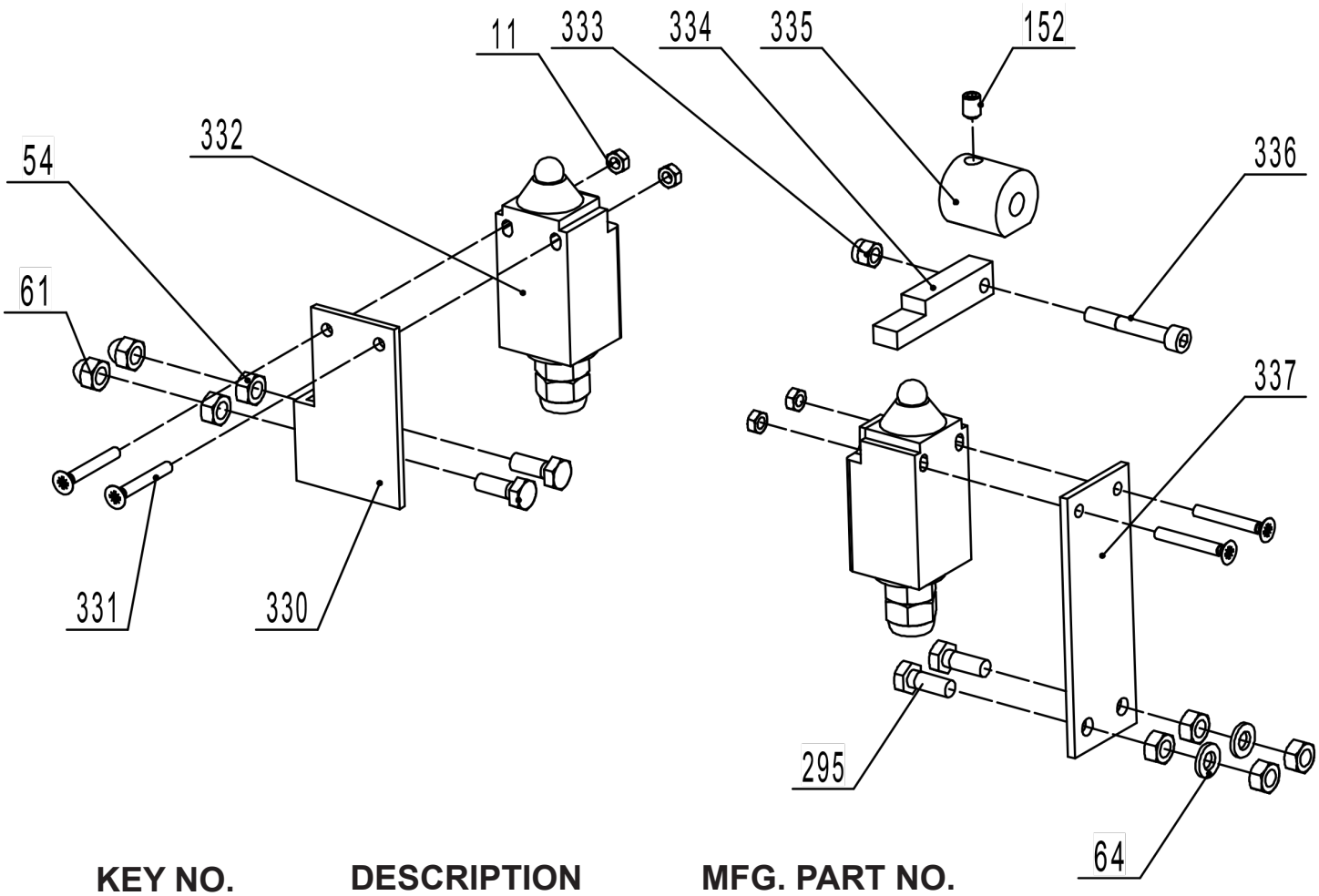
KEY NO.	DESCRIPTION	MFG. PART NO.
1	Screw M6x12	P25-200H-1
90	Flat Washer	P25-200H-90
152	Hex. Socket Set Screw	P25-200H-152
172	Scale	P25-200H-172
173	Indicator	P25-200H-173
191	Crank Bar	P25-200H-191
193	Handwheel	P25-200H-193
194	Hex Nut	P25-200H-194
195	Handle Bolt	P25-200H-195
196	Handle	P25-200H-196
197	Hex Socket Set Screw	P25-200H-197
386	Planing Table	P25-200H-386
387	Set Screw M8x12	P25-200H-387
388	Rod	P25-200H-388
389	Screw M6x20	P25-200H-389
390	Bushing	P25-200H-390
391	Screw M6x20	P25-200H-391
392	Bushing	P25-200H-392
393	Washer	P25-200H-393
394	Hex Bolt M8x40	P25-200H-394
395	Washer	P25-200H-395
396	Hex Socket Screw M8x20	P25-200H-396
397	Position Tube	P25-200H-397
398	Threaded Tube	P25-200H-398
399	Spring Washer	P25-200H-399
400	Hex Bolt M8x35	P25-200H-400
401	Screw M6x40	P25-200H-401
402	Threaded Rod	P25-200H-402
403	Gear	P25-200H-403
404	Roll Pin	P25-200H-404
405	Washer	P25-200H-405
406	Threaded Tube	P25-200H-406
407	Bearing	P25-200H-407
408	Washer	P25-200H-408
409	Hex Nut M10	P25-200H-409
410	Bracket	P25-200H-410
411	Retainer Ring	P25-200H-411
412	Tube	P25-200H-412
413	Screw M10x30	P25-200H-413
414	Spring Washer	P25-200H-414
415	Hex Nut M6	P25-200H-415
416	Screw M6x20	P25-200H-416
417	Nut M8	P25-200H-417
418	Washer	P25-200H-418
419	Nut M8	P25-200H-419
420	Roller	P25-200H-420
421	Washer	P25-200H-421
422	Bracket	P25-200H-422
423	Hex Bolt M8x35	P25-200H-423

FENCE ASSEMBLY



KEY NO.	DESCRIPTION	MFG. PART NO.	KEY NO.	DESCRIPTION	MFG. PART NO.
64	Flat Washer	P25-200H-64	284	Sliding Collar	P25-200H-284
95	Hex. Bolt	P25-200H-95	285	Pin Shaft	P25-200H-285
149	Hex Nut M8	P25-200H-149	286	Spring	P25-200H-286
152	Hex Socket Set Screw	P25-200H-152	287	Rotation Bracket	P25-200H-287
246	Washer	P25-200H-246	288	Pin Stop Knob	P25-200H-288
270	Cutterhead Cover	P25-200H-270	289	Hex Bolt M6x30	P25-200H-289
272	Sliding Cover	P25-200H-272	290	Washer	P25-200H-290
274	Sliding Cover Bracket	P25-200H-274	291	Tilt Locking Handle	P25-200H-291
275	Nylon Nut M4	P25-200H-275	292	Sliding Locking Handle	P25-200H-292
276	Jointer Fence	P25-200H-276	293	Sliding Bracket	P25-200H-293
277	Pin Shaft	P25-200H-277	294	Hex Bolt M8x25	P25-200H-294
278	Pan Head Screw M4x8	P25-200H-278	295	Hex Bolt M6x15	P25-200H-295
279	Spring Washer 4	P25-200H-279	296	Stop Bracket	P25-200H-296
280	Indicator	P25-200H-280	300	Guide Rail	P25-200H-297
281	Scale	P25-200H-281	301	Hex Nut	P25-200H-298
282	Square Nut	P25-200H-282	302	Hex Bolt M8x16	P25-200H-299
283	Jointer Fence Bracket	P25-200H-283	303	Warning Label	P25-200H-300

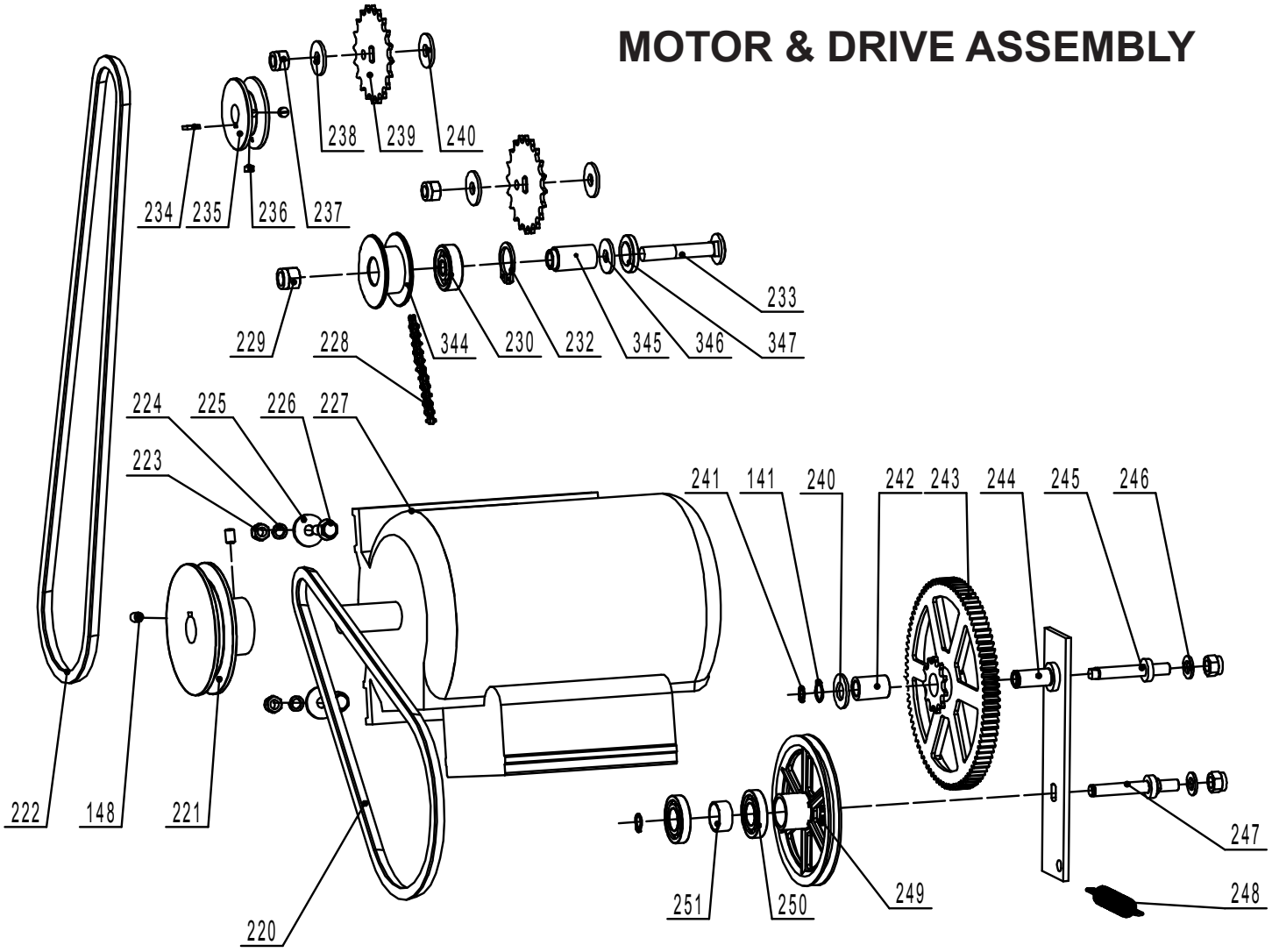
MICRO SWITCHES



KEY NO.	DESCRIPTION	MFG. PART NO.
11	Hex Nut M4	P25-200H-11
54	Nut	P25-200H-54
61	Cap Nut	P25-200H-61
64	Flat Washer	P25-200H-64
152	Hex Socket Set Screw	P25-200H-152
295	Hex Bolt M6x15	P25-200H-295
330	Safety Switch Bracket II	P25-200H-330
331	Screw M4x30	P25-200H-331
332	Safety Switch	P25-200H-332
333	Lock Nut M5	P25-200H-333
334	Bracket	P25-200H-334
335	Small Cam Wheel	P25-200H-335
336	Hex Socket Set Screw M5x35	P25-200H-336
337	Safety Switch Bracket I	P25-200H-337

NOTE: Please reference the Manufacturer's Part Number when calling for Replacement Parts.
For Parts under Warranty, the Serial Number of your machine is required.

MOTOR & DRIVE ASSEMBLY



KEY NO.	DESCRIPTION	MFG. PART NO.	KEY NO.	DESCRIPTION	MFG. PART NO.
141	Hex Nut	P25-200H-141	237	Lock Nut M10	P25-200H-237
148	Hex Nut M12	P25-200H-148	238	Flat Washer	P25-200H-238
220	V-Belt	P25-200H-220	239	Big Chain Wheel	P25-200H-239
221	Motor Pulley	P25-200H-221	240	Washer	P25-200H-240
222	V-Belt A1194	P25-200H-222	241	Retaining Ring	P25-200H-241
223	Cap Nut M8	P25-200H-223	242	Tube for Chain Wheel	P25-200H-242
224	Lock Washer 8	P25-200H-224	243	Cam Wheel	P25-200H-243
225	Flat Washer 8	P25-200H-225	244	Cam Wheel Bracket	P25-200H-244
226	Flange Bolt M8x25	P25-200H-226	245	Cam Wheel Shaft	P25-200H-245
227	Motor	P25-200H-227	246	Flat Washer	P25-200H-246
227A	Capacitor (not shown)	P25-200H-227A	247	Shaft	P25-200H-247
228	Chain	P25-200H-228	248	Spring	P25-200H-248
229	Lock Nut M12	P25-200H-229	249	V-Belt Pulley	P25-200H-249
230	Bearing	P25-200H-230	250	Bearing	P25-200H-250
232	Tube	P25-200H-232	251	Bearing Spacer	P25-200H-251
233	Bolt M12x70	P25-200H-233	344	Wheel	P25-200H-344
234	Key 6x16	P25-200H-234	345	Tube	P25-200H-345
235	Spindle Pulley	P25-200H-235	346	Washer	P25-200H-346
236	Hex Socket Set Screw	P25-200H-236	347	Washer	P25-200H-347

RIKON
POWER TOOLS

5-Year Limited Warranty

RIKON Power Tools Inc. (“Seller”) warrants to only the original retail consumer/purchaser of our products that each product be free from defects in materials and workmanship for a period of five (5) years from the date the product was purchased at retail. This warranty may not be transferred.

This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs, alterations, lack of maintenance or normal wear and tear. Under no circumstances will Seller be liable for incidental or consequential damages resulting from defective products. All other warranties, expressed or implied, whether of merchantability, fitness for purpose, or otherwise are expressly disclaimed by Seller. This warranty does not cover products used for commercial, industrial or educational purposes.

This limited warranty does not apply to accessory items such as blades, drill bits, sanding discs, grinding wheels or belts and other related items.

Seller shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty proof of purchase documentation, which includes date of purchase and an explanation of the complaint, must be provided.

The Seller reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

To take advantage of this warranty, please fill out the enclosed warranty card and send it to:
RIKON Warranty
16 Progress Rd.
Billerica, MA 01821

The card must be entirely completed in order for it to be valid. If you have any questions please contact us at 877-884-5167 or warranty@rikontools.com.

RIKON
POWER TOOLS

25-200H

For more information:
16 Progress Rd
Billerica, MA 01821

877-884-5167 / 978-528-5380
techsupport@rikontools.com