



User Manual

Read this manual before using machine to avoid serious injury and damage

50100PC-WHD

13" Portable Planer

With Spiral Style Cutterhead and 4-Sided Carbide Inserts



For technical support, email techservices@wahudatools.com or call at 877-568-8879

VER. 08.31.20

TABLE OF CONTENTS

INTRODUCTION

SECTION 1	Warranty	3
SECTION 2	Product Specifications	4
SECTION 3	Feature Identification	4
SECTION 4	General Safety.....	5
SECTION 5	Product Safety	8
SECTION 6	Grounding Instructions.....	10
SECTION 7	Unpacking & Inventory.....	12
SECTION 8	Assembly	13
SECTION 9	Adjustments	14
SECTION 10	Cleaning Cutterhead & Inserts	16
SECTION 11	Operations	18
SECTION 12	Maintenance	23
SECTION 13	Troubleshooting	26
SECTION 14	Parts Diagram & List.....	27

INTRODUCTION

This user manual is intended for use by anyone working with this machine. It should be kept available for immediate reference so that all operations can be performed with maximum efficiency and safety. Do not attempt to perform maintenance or operate this machine until you have read and understand the information contained in this manual. The drawings, illustrations, photographs, and specifications in this user manual represent your machine at time of print. However, changes may be made to your machine or this manual at any time with no obligation to WAHUDA.

WARRANTY

2 YEAR LIMITED WARRANTY

WAHUDA warrants its machinery to be free of defects in workmanship and materials for a period of two (2) years from the date of the original purchase by the original owner. This warranty applies to products sold in United States only. The warranty does not apply to any product used for professional or commercial production purposes nor for industrial or educational applications. Such cases are covered by our 1 year Limited Warranty with the Conditions and Exceptions.

Warranty does not include failures, breakage or defects deemed after inspection by an Authorized Service Center or our agent to have been directly or indirectly caused by or resulting from improper use, lack of or improper maintenance, misuse or abuse, negligence, accidents, damage in handling or transport, or normal wear and tear of any part or component. Examples are consumables such as inserts and knives or wear items like drive belts, bearings or brushes. Additionally, warranty is void if repairs or alterations are made to the machine by an unauthorized service center without the direct consent of WAHUDA.

To file a claim of warranty, call toll free 877-568-8879 or email techservices@wahudatools.com . Warranty applies to the original buyer only and cannot be transferred. Your machines date of purchase and serial number have already been registered with WAHUDA when shipped. If you purchased your machine from one of our authorized dealers, please go online at www.wahudatools.com and register your machine online. Thus, you will only need to provide your full name when contacting WAHUDA.

The defective units should be returned Freight prepaid to WAHUDA's Authorized Service Center for inspection. If the warranty claim is considered to be invalid due to exclusions listed above, WAHUDA will at your direction dispose of or return the product. In the event you choose to have the product returned you will be responsible for the handling and shipping cost of the return.

WAHUDA furnishes the above warranties in lieu of all other warranties, express or implied. WAHUDA shall not be liable for any special, indirect, incidental, punitive or consequential damages, including without limitation to loss of profits arising from or related to the warranty, the breach of any agreement or warranty, or the operation or use of its machinery, including without limitation damages arising from damage to fixtures, tools, equipment, parts or materials, direct or indirect loss caused by any other part, loss of revenue or profits, financing or interest charges, and claims by and third person, whether or not notice of such possible damages has been given to WAHUDA. Not Responsible for damages of any kind for any delay by or failure of WAHUDA to perform its obligations under this agreement or claims made a subject of a legal proceeding against WAHUDA more than one (1) year after such cause of action first arose.

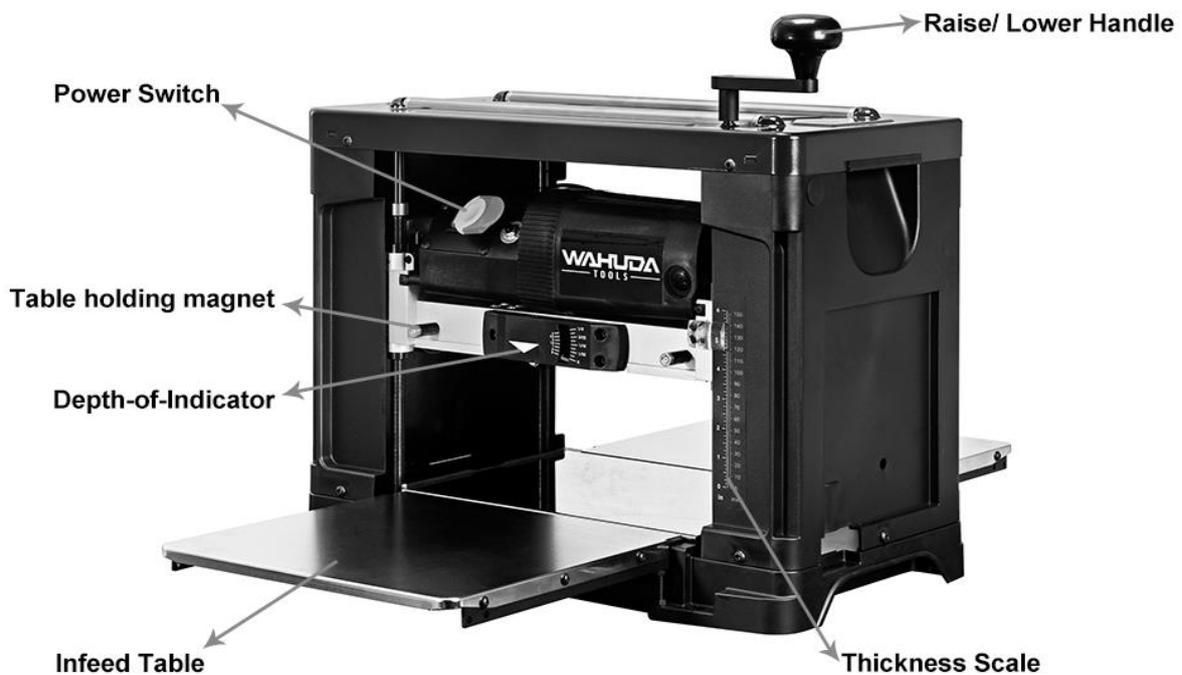
The validity, construction and performance of this Warranty and any sale of machinery by WAHUDA shall be governed by the law of the State of Tennessee, without regard to conflicts of law's provisions of any jurisdiction. Any action related in any way to any alleged or actual offer, acceptance or sale by WAHUDA or any claim related to the performance of and agreement including without limitation this Warranty, shall take place in the federal or state courts in Shelby County, Tennessee.

WAHUDA reserves the right to change the specifications of its machines without prior notice.

PRODUCT SPECIFICATIONS

Feed Speed	26 FPM
Cutterhead speed RPM	10,000
Motor RPM	23000+/-10% (No Load)
Cutterhead diameter	2"
Max planer capacity	6" x 13"
Max depth of cut @ 6" width	1/8"
Max depth of cut @ 13" width	1/16"
Minimum Length of Stock	9 1/2"
Minimum Thickness of Stock	1/8"
Carbide cutter inserts qty	26 (4-sided)
Motor power input	120 V, 60 Hz, AC Only, 15 Amp
Shipping Weight	73 lbs
Net Weight	62 lbs
Shipping Dimensions	25.2" W x 20" D x 21.6" H
Machine Overall Dimensions (tables down - crank handle mounted)	22" W x 34" D x 20 3/4" H
Machine Dimensions (tables up – crank handle removed)	22" W x 13 3/4" D x 17 1/4" H
Dust Port Opening	4" (2 1/2" with provided adapter)

FEATURE IDENTIFICATION



GENERAL SAFETY

NOTE: The **WARNING!** and **CAUTION!** symbols indicate a potentially hazardous situation which, if not avoided, COULD result in death or serious injury. READ THIS MANUAL completely before assembling and operating this machine.

WARNING! TO AVOID serious injury, death, or damage to the machine, please read, understand, and follow, all Safety and Operating Instructions before assembling and operating this machine. This manual is not totally comprehensive. It does not and cannot convey every possible safety and operational problem which may arise while using this machine. The manual will cover many of the basic and specific safety procedures needed in an industrial environment.

All federal and state laws, and any regulations having jurisdiction covering the safety requirements for use of this machine, take precedence over the statements in this manual. Users of this machine must adhere to all such regulations.

WARNING! Exposure to the dust created by power sanding, sawing, grinding, drilling and other construction activities 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. The dust may contain 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.

Always operate tool in well ventilated area and provide for proper dust removal. Use a dust collection system along with an air filtration system whenever possible. Always use properly fitting NIOSH/OSHA approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.

WARNING! ALWAYS wear eye protection. Any machine can throw debris into the eyes during operations, which could cause severe and permanent eye damage. Everyday eyeglasses are NOT safety glasses. ALWAYS wear Safety Goggles (that comply with ANSI standard Z87.1) when operating power tools.

WARNING! ALWAYS wear hearing protection. Plain cotton is not an acceptable protective device. Hearing equipment should comply with ANSI S3.19 Standards.

WARNING! ALWAYS wear a NIOSH/OSHA approved dust mask to prevent inhaling dangerous dust or airborne particles.

GENERAL SAFETY (cont.)

ALWAYS keep the work area clean, well lit, and organized. DO NOT work in an area that has slippery floor surfaces from debris, grease, and wax.

CAUTION! ALWAYS unplug the machine from the electrical receptacle when making adjustments, changing parts or performing any maintenance.

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

WARNING! AVOID a dangerous working environment. DO NOT use electrical tools in a damp environment or expose them to rain or moisture.

WARNING! CHILDPROOF THE WORKSHOP AREA by removing switch keys, unplugging tools from the electrical receptacles, and using padlocks.

CAUTION! DO NOT use electrical tools in the presence of flammable liquids or gasses.

DO NOT FORCE the machine 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 machine was intended.

WARNING! DO NOT stand on a machine. Serious injury could result if it tips over or you accidentally contact any moving part.

DO NOT store anything above or near the machine.

WARNING! DO NOT operate any machine or tool if under the influence of drugs, alcohol, or medication.

EACH AND EVERY time, check for damaged parts prior to using any machine. Carefully check all guards to see that they operate properly, are not damaged, and perform their intended functions.

Check for alignment, binding or breakage of all moving parts. Any guard or other part that is damaged should be immediately repaired or replaced.

WARNING! Ground all machines. If any machine 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. DO NOT remove the third prong.

CAUTION! Keep visitors and children away from any machine. DO NOT permit people to be in the immediate work area, especially when the machine is operating.

GENERAL SAFETY (cont.)

KEEP protective guards in place and in working order.

CAUTION! MAINTAIN your balance. DO NOT extend yourself over the tool. Wear oil resistant rubber soled shoes. Keep floor clear of debris, grease, and wax.

MAINTAIN all machines with care. ALWAYS KEEP machine clean and in good working order. KEEP all blades and tool bits sharp.

NEVER leave a machine running, unattended. Turn the power switch to the OFF position. DO NOT leave the machine until it has come to a complete stop.

REMOVE ALL MAINTENANCE TOOLS from the immediate area prior to turning the machine ON.

WARNING! STAY ALERT, watch what you are doing, and use common sense when operating any machine. DO NOT operate any machine tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.

WARNING! USE ONLY recommended accessories. Use of incorrect or improper accessories could cause serious injury to the operator and cause damage to the machine. If in doubt, DO NOT use it.

THE USE of extension cords is not recommended for 230V equipment. It is better to arrange the placement of your equipment and the installed wiring to eliminate the need for an extension cord. If an extension cord is necessary, refer to the chart in the Grounding Instructions section to determine the minimum gauge for the extension cord. The extension cord must also contain a ground wire and plug pin.

CAUTION! 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. Users must wear a protective cover on their hair, if the hair is long, to prevent it from contacting any moving parts.

SAVE these instructions and refer to them frequently and use them to instruct other users.

NOTE: Information regarding the safe and proper operation of this tool is also available from the following sources:

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

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

National Safety Council
1121 Spring Lake Drive
Itasca, IL 60143-3201

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

PRODUCT SAFETY

1. Serious personal injury may occur if normal safety precautions are overlooked or ignored. Accidents are frequently caused by lack of familiarity or failure to pay attention. Obtain advice from supervisor, instructor, or another qualified individual who is familiar with this machine and its operations.
2. Every work area is different. Always consider safety first, as it applies to your work area. Use this machine with respect and caution. Failure to do so could result in serious personal injury and damage to the machine.
3. Prevent electrical shock. Follow all electrical and safety codes, including the National Electrical Code (NEC) and the Occupational Safety and Health Regulations (OSHA). All electrical connections and wiring should be made by qualified personnel only
4. **WARNING!** TO REDUCE the risk of electrical shock. DO NOT use this machine outdoors. DO NOT expose to rain. Store indoors in a dry area.
5. STOP using this machine, if at any time you experience difficulties in performing any operation. Contact your supervisor, instructor or machine service center immediately.
6. Safety decals are on this machine to warn and direct you to how to protector yourself or visitors from personal injury. These decals MUST be maintained so that they are legible. REPLACE decals that are not legible.
7. DO NOT leave the unit plugged into the electrical outlet. Unplug the unit from the outlet when not in use and before servicing, performing maintenance tasks, or cleaning.
8. **WARNING!** DO NOT handle the plug or planer with wet hands
9. USE only accessories as described in this manual and recommended by WAHUDA.
10. DO NOT pull the planer by the power cord. NEVER allow the power cord to come in contact with sharp edges, hot surfaces, oil or grease.
11. ALWAYS turn the power switch "OFF" before unplugging the planer. DO NOT unplug the planer by pulling on the power cord. ALWAYS grasp the plug, not the cord.
12. REPLACE a damaged cord immediately. DO NOT use a damaged cord or plug.
13. DO NOT use the planer as a toy. DO NOT use near or around children.

PRODUCT SAFETY (cont.)

14. ENSURE that the machine sits firmly before using. Attach or clamp planer to a bench top prior to operation.
15. This machine is designed to process wood ONLY.
16. **WARNING!** NEVER position fingers or thumbs near the cutterhead.
17. Long pieces of stock should ALWAYS be supported with some type of fixtures
18. DO NOT operate the planer with dull or damaged blades.
19. MAKE CERTAIN that the planer is properly adjusted prior to use.
20. DO NOT try and remove excessive amounts of wood in one single pass.
21. INSPECT all stock before beginning operations ensuring that there are no foreign objects embedded in the wood, loose knots, or knots that may become loose during operation.
22. **WARNING!** DO NOT attempt to remove jams until power is disconnected and all moving parts have come to a complete stop.
23. MAKE SURE that there is adequate operating space on both the infeed and outfeed sides of the planer before operating.
24. **WARNING!** DO NOT attempt to plane wood that is less than 9 1/2" long, narrower than 3/4 ", or less than 1/8" thick.

GROUNDING INSTRUCTIONS

WARNING! This machine 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. The plug MUST be plugged into a matching electrical receptacle that is properly installed and grounded in accordance with ALL local codes and ordinances.

If a plug is provided with your machine DO NOT modify the plug. If it will not fit your electrical receptacle, have a qualified electrician install the proper connections to meet all electrical codes local and state. ALL connections must also adhere to NEC and OSHA mandates.

WARNING! 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.

WARNING! Electrocutation or fire could result if this machine is not grounded properly or if the electrical configuration does not comply with local and state electrical codes.

MAKE CERTAIN the machine is disconnected from power source before starting any electrical work.

MAKE SURE the circuit breaker does not exceed the rating of the plug and receptacle.

The motor supplied with your machine is a 115 volt, 60 hertz, single phase motor. Never connect the green or ground wire to a live terminal. A machine with a 115 volt plug should only be connected to an outlet having the same configuration as the plug.

WARNING! To reduce the risk of fire or electrical shock, use the proper gauge of extension cord. When using an extension cord, be sure to use one heavy enough to carry the current your machine will draw.

The smaller the gauge-number, the larger the diameter of the extension cord is. 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.

CAUTION! USE ONLY a 3-wire extension cord that has a 3-prong grounding plug and a 3-pole receptacle that accepts the machine's plug. If you are using an extension cord outdoors, be sure it is marked with the suffix "W-A" ("W" in Canada) to indicate that it is acceptable for outdoor use.

GROUNDING INSTRUCTIONS (cont.)

Make certain the extension cord is properly sized, and in good electrical condition. Always replace a worn or damaged extension cord immediately or have it repaired by a qualified person before using it.

Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.

MINIMUM RECOMMENDED GAUGE FOR EXTENSION CORDS (AWG)				
115 VOLT OPERATION ONLY				
	25' LONG	50' LONG	100' LONG	150' LONG
0 to 6 Amps	18 AWG	16 AWG	16 AWG	14 AWG
6 to 10 Amps	18 AWG	18 AWG	14 AWG	12 AWG
10 to 12 Amps	16 AWG	16 AWG	14 AWG	12 AWG

UNPACKING & INVENTORY

Check shipping carton and machine for damage before unpacking. Carefully remove packaging materials, parts and machine from shipping carton. Always check for and remove protective shipping materials around motors and moving parts. Lay out all parts on a clean work surface.

Be EXTREMELY CAREFUL working around the cutter tips as they are VERY SHARP!!!

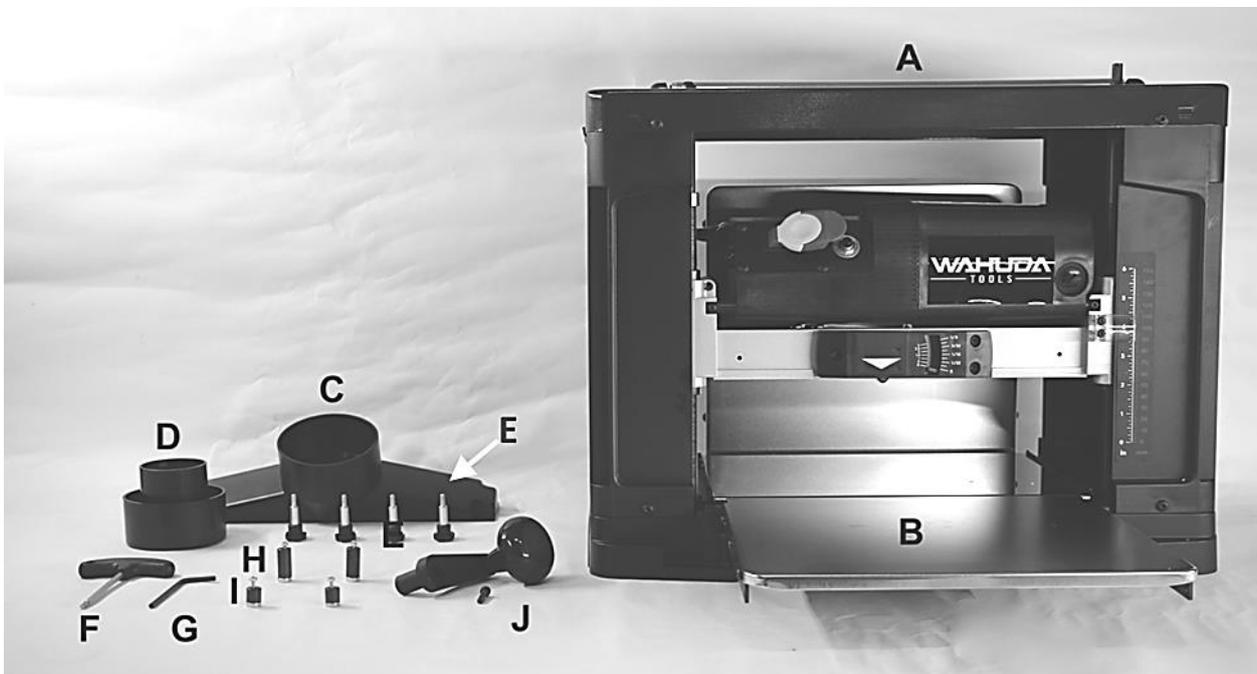
Remove any protective materials and coatings from all of the parts and the jointer **except** for the cutterhead. Specific cutterhead cleaning instructions follow. The protective coatings can be removed by wiping the surfaces with a soft cloth.

NOTE: See later instructions for cleaning the cutterhead and insert tips which may be required before operation.

NOTE: Some parts pictured may already be installed on your machine at the factory.

Go through the entire manual before contacting WAHUDA.

Compare the items to inventory figures and verify that all items are accounted for. If any parts are missing, do not attempt to power on the machine. For missing parts, or shipping damage, contact WAHUDA at techservices@wahudatools.com or call 877-568-8879.



- A) Planer B) Table C) 4in Dust Port D) 4 to 2 ½ in Adaptor
E) 4ea Star Knob F) T Torx Handle G) 4mm Hex Allen wrench
H) 2ea long Magnets I) 2ea Short Magnets J) Crank Handle with socket head screw

ASSEMBLY

WARNING! MAKE CERTAIN THAT THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.

ATTACHING DEPTH ADJUSTMENT CRANK HANDLE

Attach the raise/lower adjustment handle to the shaft located on top of the planer and fasten in place with 1 Hex Socket Head screw M5*25, Tighten screw using supplied hex wrench.



ATTACHING DUST PORT

1. Facing the rear of the machine, place the outfeed table in the down position.
2. Attach the dust on the cutterhead assembly using 4 of the plastic star knob screws making sure the 4" port is facing at an upward angle.

NOTE: When operating the planer, we recommend using full size dust collector with a 4" hose, or a good sized shop vacuum with a cyclone type collection device installed between the planer and the shop vac using the 2 1 / 2" supplied adapter



ASSEMBLY (cont)

TABLE MAGNETS

The table magnets keep the tables from falling during transport of the planer.

The 2 long table magnets, item H page 12, should be screwed into the threaded holes on the front of the cutterhead assembly and tightened with a Phillips screwdriver (not supplied)

See picture on page 4 for reference.

The 2 short table magnets, item I page 12, are optional. They can be threaded into the inner holes on the rear of the cutterhead assembly only when the dust port is removed.

ADJUSTMENTS

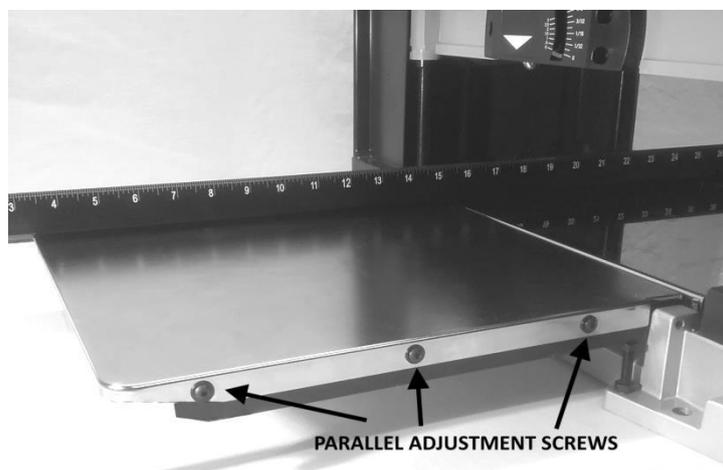
WARNING! MAKE CERTAIN THAT THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE BEFORE ANY ADJUSTMENTS ARE MADE.

WARNING! BE VERY CAREFUL WORKING NEAR THE CUTTERHEAD INSERT TIPS. THEY ARE EXTREMELY SHARP AND CAN CAUSE INJURY.

LEVELING INFEED AND OUTFEED TABLES

The infeed and outfeed tables must be parallel and level with the planer center wear plate located under the cutterhead assembly. These have been preset at the factory but may need readjustment.

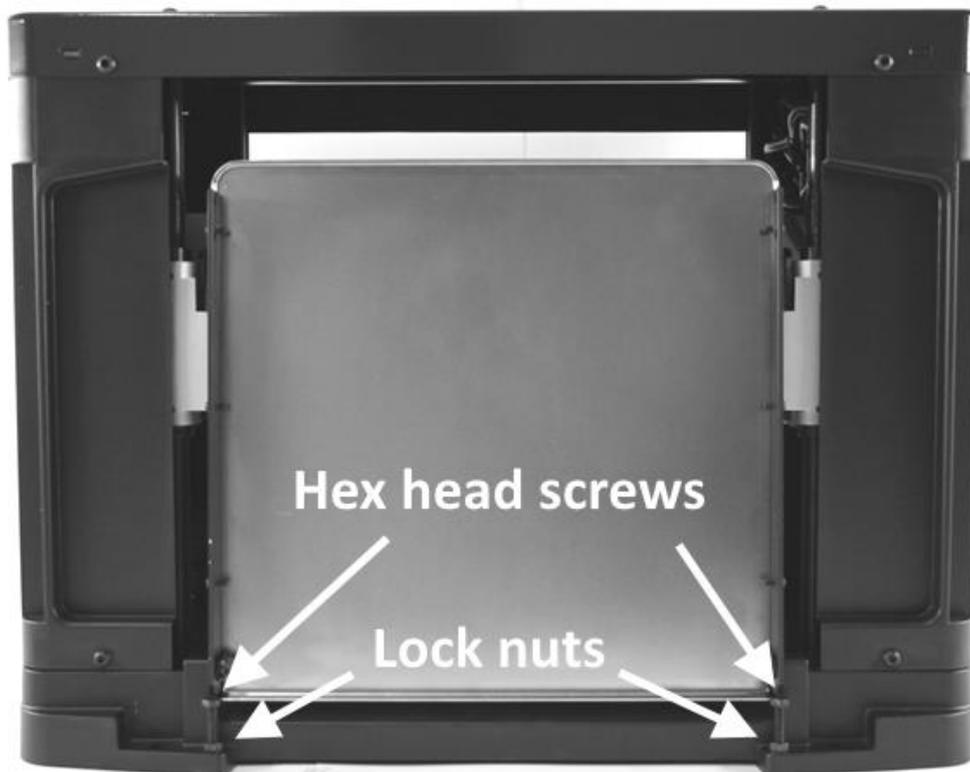
Using the crank handle, raise the cutterhead assembly to its highest position. Being extremely careful of the cutterhead insert tips, lay a metal straight edge on the infeed table and center wear plate at both left and right sides of the table. If the table is not parallel with the wear plate, you can loosen the table side mounting screws (3 on each side) to get the table parallel and then retighten the screws. Repeat this procedure for the outfeed table.



ADJUSTMENTS (cont)

Next, using the metal straight edge in the same 2 locations as above, check to see if the table is coplanar with the wear plate. It should be one continuous flat surface from the outside edge of the table going across the wear plate. If an adjustment is necessary, raise the table, then loosen the lock nuts and adjust the hex head screws under each side of the table until the infeed table is coplanar with the wear plate. A 10mm wrench or small adjustable wrench is required but not included. Counterclockwise raises the table, clockwise lowers the table. This adjustment will raise or lower (slightly tilt) the outer leading edge of the table....whichever is needed. Once coplanar, tighten the lock nuts. See picture below

Recheck to make sure the infeed table is coplanar and parallel to the wear plate and make any necessary re-adjustments. Repeat this process for leveling the outfeed table.



CLEANING SPIRAL CUTTERHEAD & TIPS

WARNING! MAKE CERTAIN THAT THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE BEFORE PERFORMING ANY MAINTENANCE PROCEDURES

WARNING! To prevent serious personal injury NEVER rotate the cutterhead by hand. Cutter tips are razor sharp! Always wear heavy leather gloves when handling the cutterhead. Avoid touching the cutter insert by hand without protection.

NOTE: Do not get solvent on any painted portion of the machine.

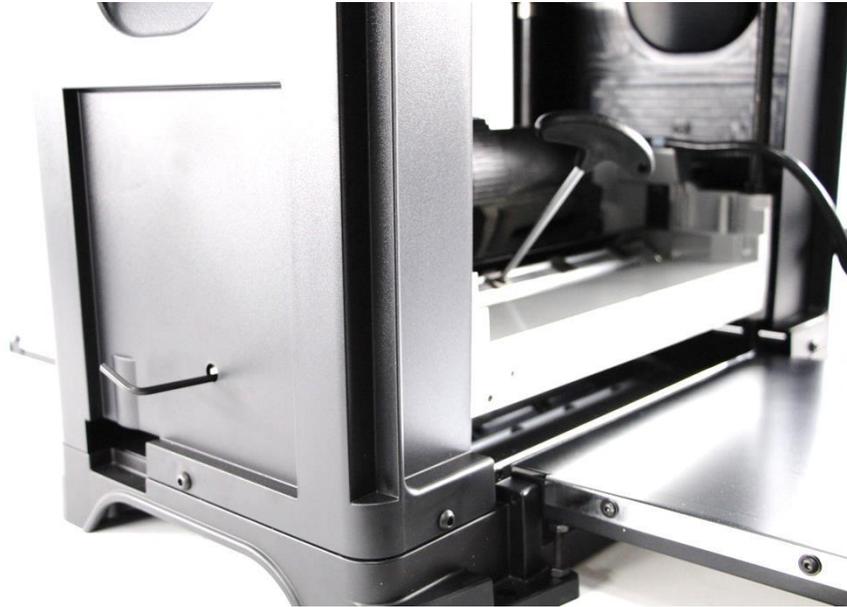
WAHUDA spiral cutterheads are machined with a film of oil that may be left over from the process. Removal of this oil residue, if apparent, should be done before you use your new machine.

- 1) Place the machine at a comfortable working height and supply ample lighting.
- 2) Facing the rear of the machine, remove the dust port.
- 3) Remove the dust chute by removing the 2 star knob screws to expose the cutterhead.



- 4) Lower the cutterhead assembly, using the crank handle, to about 1" on the front depth scale.
- 5) Insert the supplied 4mm Hex Wrench into the side panel hole and into end of the cutterhead to hold it in position. (See picture following page)
- 6) Then, using the supplied T-25 T-Torx wrench, carefully remove the cutter tips. Continue rotating the cutterhead with the Hex Wrench and remove the remaining tips.

CLEANING SPIRAL CUTTERHEAD & TIPS (cont.)



- 7) Separate the tips from the screws and place in separate containers with a bit of mineral spirits or non-chlorinated brake cleaner.
- 8) Once all are removed, wipe down the bare cutterhead using rags with whichever solvent you chose mentioned above.
- 9) Once the oil is wiped off, use an air compressor or a can of pressurized air to clear each seat and screw hole on the cutter head. This will aid in knife and cutter tips reinstallation.
- 10) Lubricate the Torx screw threads with light machine oil, wipe the excess oil off the threads.
- 11) Place each insert tip in the seat and slightly snug each screw using the Hex Wrench to hold the cutterhead in position. Once you get a row of tips seated and slightly tightened down, repeat by going back over each cutter tip and tighten down the screws securely to 48 to 50 inch / lbs. **NOTE: NOT FT / LBS !!!!**
- 12) Install the remaining insert tips in the same fashion.
- 13) Reinstall the dust chute and dust port

NOTE: Periodically inspect the insert tips for wear and pitch build up. Remove and replace or clean as necessary.

NOTE: After all assembly and adjustment instructions are completed, use a sacrificial board after cleaning to test for remaining oil. If oil is still apparent, repeat the cleaning method you used above.

OPERATIONS

NOTE: This operations section was designed to give instructions on the basic operations of this planer. However, it is in no way comprehensive of every planer operation. It is strongly recommended that you read books, trade magazines, or get formal training to maximize the potential of your planer while minimizing the risks.

NOTE: This planer is designed to process wood ONLY. The use of any other material will void your warranty.

SECURING PLANER TO A TABLE OR WORKBENCH

During operation, the planer MUST be secured to a supporting surface such as a solid and sturdy work bench or table. Four holes are provided (2 are shown below) to securely mount the planer. 2 holes are located in the front and 2 at the rear of the planer. The surface you are mounting the planer to should be flat. The mounting hole diameter is $\frac{3}{8}$ " and the length of the mounting bolts (not supplied) will be determined by the thickness of your workbench/table. For reference, the thickness of the base at the mounting holes is $\frac{1}{2}$ ". Make sure to use washers, split lock washers, and nuts of the appropriate size, to secure the planer to your work top.



OPERATIONS (cont)

RAISING AND LOWERING HEAD ASSEMBLY

The cutterhead assembly consists of the cutterhead, insert tips, feed rollers, roller chains, gearbox, and cutterhead dust chute. Raising and lowering of the head assembly controls the depth of cut on the planer.

To raise the cutterhead assembly, turn the adjusting crank handle clockwise. To lower the head assembly, turn the adjusting crank handle counterclockwise.

NOTE: One revolution of the handle will move the cutterhead up or down approximately 1/16". You can confirm this by referencing the thickness scale on the front right side of the planer.

POWER SWITCH

The planer is turned ON by flipping the switch into the left position and it is turned OFF by flipping the switch to the right. This planer is also equipped with a special lockout toggle switch that prevents unauthorized use. To prevent unauthorized use of the planer, simply pull out the yellow safety key located on the face of the switch. When installing the yellow safety key, make sure it is inserted completely and a faint "click" is felt.



OPERATIONS (cont)

DEPTH-OF-CUT INDICATOR

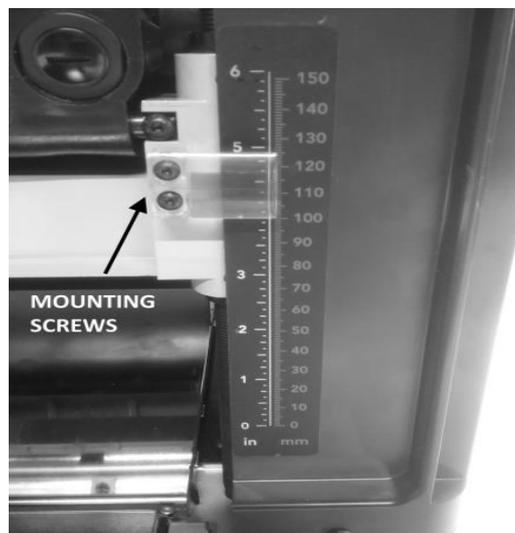
The Depth-Of-Cut Indicator, located on the front of the machine, is a convenient way to quickly determine how much material is being planed off in one pass.

1. With the machine powered OFF, and the cutterhead raised, insert your workpiece just under the indicator arrow.
2. Crank the cutterhead down until the button comes in contact with the workpiece.
As you rotate the raise / lower handle, the needle on the depth of cut scale will move showing how much material will be removed in that pass. Note, the needle may jump during the planing of your stock. This is normal.



THICKNESS SCALE ADJUSTMENT

The thickness scale, located on the front right of the planer, shows the thickness of the finished workpiece. To make sure the scale is set properly, run a piece of wood through the planer and measure the thickness of the wood. If the scale is out of alignment, loosen the two round head mounting screws while holding the scale indicator and adjust the thickness indicator to the correct setting. Make sure to re-tighten the two screws once the adjustment is complete. Do not overtighten these screws as it may damage the clear indicator.



OPERATIONS (cont.)

THICKNESS PLANING

Thickness planing sizes the workpiece to a desired thickness, while at the same time creating a smooth and level surface. The thickness of each cut will depend on the type of wood, width of the workpiece, and condition of the lumber (i.e. dryness, grain composition, straightness, etc).

Always make thin test cuts on a scrap piece of wood prior to performing final cuts.

GETTING PREPARED

It is always a good idea to use a piece of scrap wood for your first planing attempt. Also, before each use of the planer, make it a habit of checking for loose fasteners, fittings or hardware. Turn the planer ON and allow it to reach full speed. Pay close attention to any excessively loud noises that may be coming from the planer or any excessive vibration. If either occurs, shut down the planer immediately checking again for loose hardware. Go through the ASSEMBLY and ADJUSTMENTS sections again if necessary.

BASIC OPERATION

WARNING! To avoid serious personal injury, NEVER stand directly in line with the front or rear of the planer. If an object is thrown from the planer, it can travel in either direction.

- 1) Stand to either the left or right side of the planer.
- 2) Flip the switch to the ON position.
- 3) Once powered on, select desired feed speed
- 4) Lift the workpiece onto the infeed table by grabbing the edges of the board at the middle of the length. NOTE: For longer pieces, be sure to use additional supports such as roller stands.
- 5) Push slightly on the board to start feed and allow the feed rollers to pull the board through the planer. Once the feed rollers start to pull the workpiece through, let go of the board and allow the rollers to do their job. DO NOT push or pull on the workpiece once the rollers have engaged.
- 6) Move to one side of the rear of the planer and receive the planed workpiece by grabbing the edges of the wood like you did when feeding the workpiece in. You can either carry the piece back to the front of the planer or stack it on the top bars to easily pass it back to the front of the planer.
- 7) It normally takes several passes of varying depths to achieve a smooth finish, so repeat this process as many times as necessary. Remember the less you take off in a pass, the smoother the finish will be, but you may still need to finish the surface by sanding.

OPERATIONS (cont.)

GENERAL TIPS AND GUIDELINES

1. Thickness planing always works best when at least one side of the workpiece has a flat surface. If both sides of the workpiece are rough, feed one face of the board through the planer until the entire surface is flat.
2. ALWAYS plane both sides of the workpiece to reach the desired thickness.
3. DO NOT plane workpieces less than 1/8" thick, less than 3 / 4" wide, or shorter than 9 1 / 2" in length.
4. It is not recommended to continuously use the planer at its maximum depth of cut of 1/8" and at its full width 13" as this will shorten the life of the motor. Use shallower cuts of 1/32" or less.
5. Light depth of cuts create a smoother finish than heavier cuts.

AVOIDING SNIPE

Snipe, gouging or depression of the board at the ends, can occur when the board is not properly supported. For workpieces longer than 5 ft, greater care must be taken to reduce the problem because the additional length of the workpiece translates into more unsupported weight pulling down on the end of the board. This unsupported weight will work against keeping the stock flat. Make sure to use supports, such as roller stands, whenever long pieces are being planed to avoid this problem. Since snipe can occur at both ends of the board, it is good practice to start with a workpiece that is slightly longer than what you need so that you can simply cut off the ends if necessary.

Snipe locks are not a necessity on bench top portable planers. Here are a few methods you can use to reduce or eliminate snipe if it's apparent:

- 1) Plane boards that are longer than your finished length and cut the snipe ends off... if it exists
- 2) Run scrap pieces of the same thickness in front and after the stock making sure the stock butts up to the end of the scrap pieces and to each other as you feed them.
- 3) Adjust the tables upwards a bit if your model allows. But be aware that you will have to readjust as the stock gets thinner and/or for your next project
- 4) Make a planer thru table surfacing jig to whatever length you like that is one continuous surface. They are usually portable (removable) . There are many online videos showing how to make this jig. Some are very complex while others designs are extremely simple
- 5) Skew the board slightly before feeding. The very corner of the work piece will "absorb" the snipe
- 6) Take less depth of cut per pass
- 7) The most widely used method : Lift the stock slightly when feeding until the rear roller catches. Then slightly lift again when exiting the planer to keep the end of the stock out of the cutterhead

MAINTENANCE

WARNING! MAKE CERTAIN THAT THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE BEFORE PERFORMING ANY MAINTENANCE PROCEDURES

Your planer should provide you with a long time of service provided you take the time to perform the following maintenance operations.

CLEANING

Sawdust buildup and other debris can cause the tool to plane incorrectly. Periodic cleaning and waxing is needed for accurate, precision planing. Any moving parts should be cleaned regularly with a penetrating oil and lubricated with a light coating of medium weight machine oil

CAUTION! With the machine unplugged, blow off motor with low pressure air to remove dust or dirt. Air pressure above 50 P.S.I. should not be used as high-pressured air may damage insulation. The operator should always wear a respirator and eye protection when using compressed air. Do not allow chips and dust to accumulate under the machine. Keep area clean and in safe order.

Having clean feed rollers is essential for optimal results. Check feed rollers after each use for buildup of pitch, gum, or resin, and be sure to clean off with a non-flammable tar and pitch remover that is not harmful to rubberized surfaces.

Periodically clean, wax, and buff the tables. This will aid in the prevention of improper feeding of the workpiece.

HARDWARE TIGHTNESS

Periodically check all clamps, nuts, bolts, and screws, for tightness and condition. Stop the machine and recheck the cutterhead screw and knives, or tips, for tightness after about 50 hours of operation. Recheck periodically.

GEAR LUBRICATION

The gears in the gear box should be lubricated periodically if necessary.

1. Facing the front of the machine, remove the raise/ lower handle.



MAINTENANCE (cont)

2. Remove the 7 screws holding the top cover on the machine. 3 screws are located on top and 4 on the upper sides. Remove the top cover.
3. On the left side panel, remove the 4 socket head screws located around the bottom edge and remove the side panel to expose the gearbox.



4. Remove the gearbox cover and lube the gears with multi-purpose grease and then replace all covers, panels, and guards that you removed once lubrication is complete.

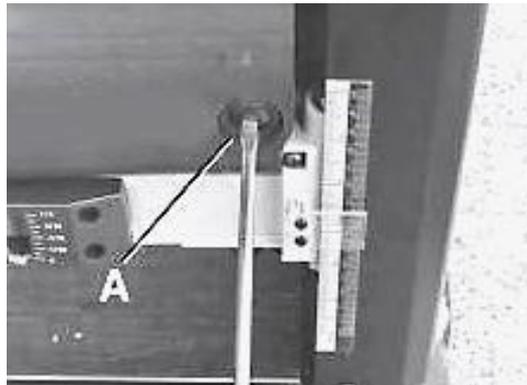


MAINTENANCE (cont.)

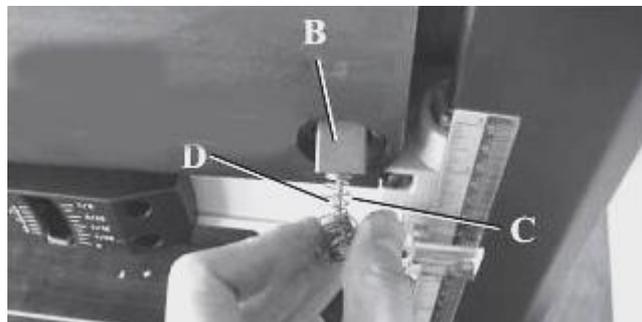
BRUSH REPLACEMENT

Brush life will vary depending on the load placed on the motor. The brushes should be inspected every 10-15 hours of use. To inspect or replace:

1. Remove the brush holders (A). The other is located in the same position on the rear of the motor assembly. The Brush Holder can be removed using a flat blade screwdriver.



2. Once the brush has been removed, inspect the carbon (B), the spring (C), and the wire (D).



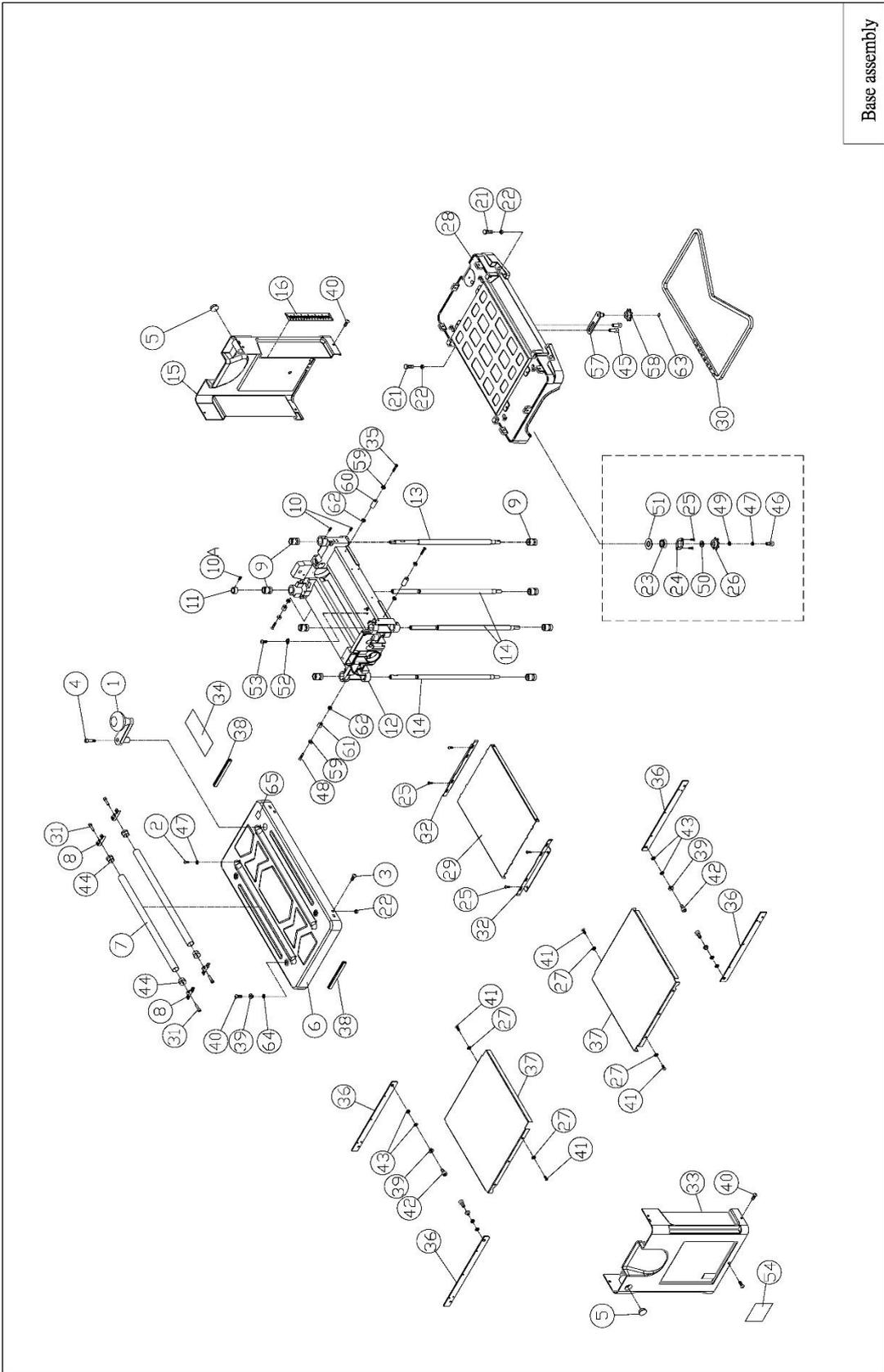
3. If the carbon of either brush is worn down to 3/16" or less, both brushes should be replaced. Also if the spring or wire are burned or damaged in any way, both brushes should be replaced.

TROUBLESHOOTING GUIDE

PROBLEM	LIKELY CAUSE	SOLUTION
Snipe (depressions at end of workpiece)	Dull Blades Infeed or outfeed tables out of adjustment. Residue on rollers.	Replace or rotate tips. Readjust tables. Feed scrap of same thickness before and after workpiece. Take less depth of cut per pass See page 22 for more info
Torn grain. Tear out	Too deep or shallow blade setting. Work piece being fed against grain. Dull cutter blades	Reduce or increase the depth of cut. Feed other end of board first. Replace or turn blades. Try skewing board when feeding. VERY slightly dampen work piece for 30 seconds before feeding.
Fuzzy/rough grain.	High wood moisture content. Dull blades Too deep a blade setting.	Dry wood before planing. Replace or turn blades Reduce depth of cut
Board thickness does not match depth scale indicator.	Depth scale incorrectly set.	Adjust depth scale.
Will not start.	Not plugged in. Blown circuit. Lockout safety key removed.	Check the power source. Replace fuse, reset breaker, or call electrician. Replace lockout key.
Interrupted operation	Unit overloaded. Circuit overloaded.	Reduce load. Operate on circuit separate from other appliances or motors or connect to circuit with adequate amp rating.
Planer not feeding properly	Too much material being removed. Knives or tips dull. Build up on tables. Build up on rollers.	Reduce cut depth. Replace knives or tips. Clean tables and apply paste wax. Clean rollers with a cleaner safe for rubber surfaces.

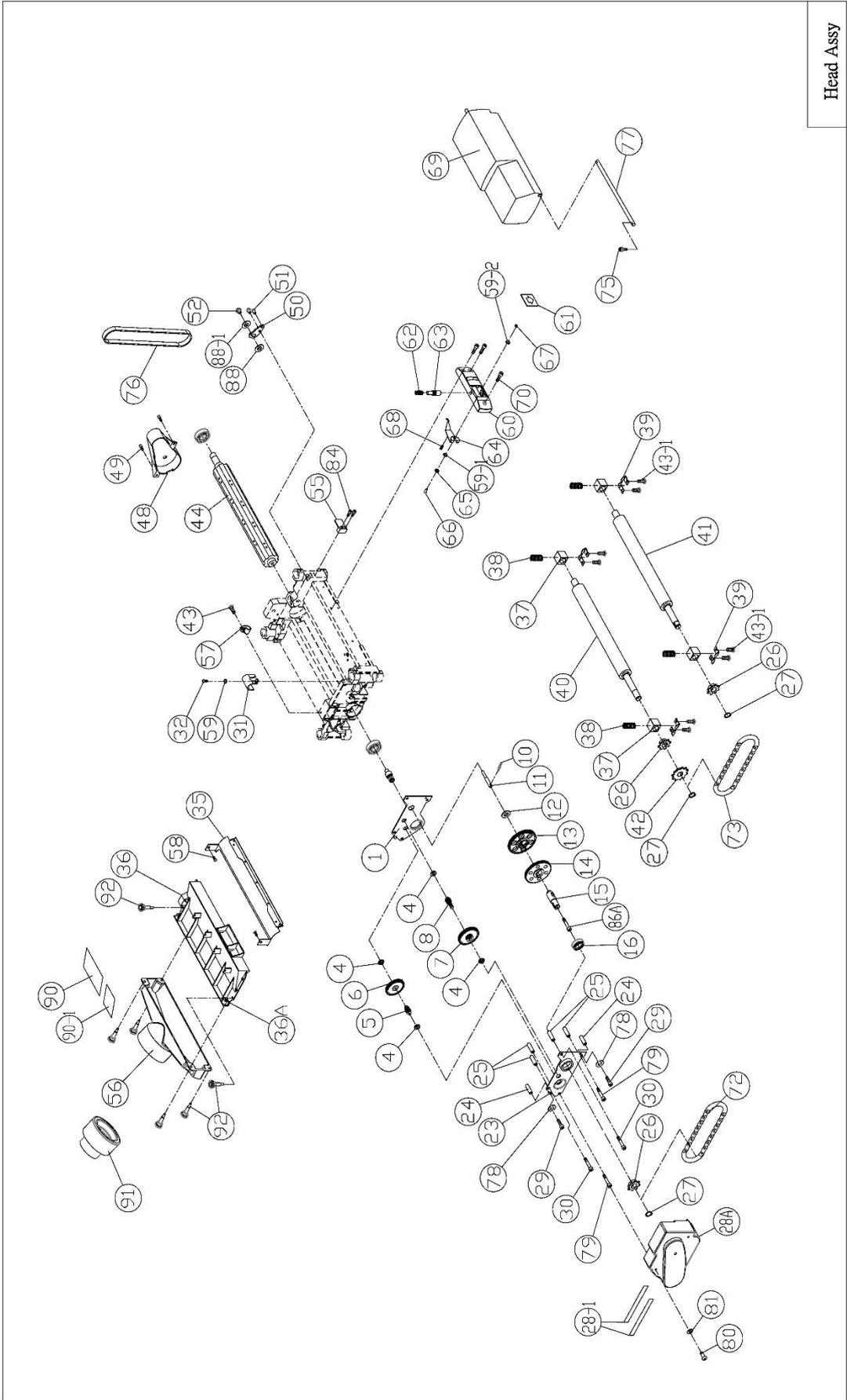
PARTS

Base assembly



Base Assembly			
PART NO.	DESCRIPTION	SPECIFICATION	Qty
50100-A1	Crack Handle		1
50100-A2	Socket Head Button Screw	M4x6	8
50100-A3	Socket Head Button Screw	M6x10	4
50100-A4	Socket Head Cap Screw	M5x25	1
50100-A5	Button plug		2
50100-A6	Top Cover		1
50100-A7	Steel Pipe		2
50100-A8	Fixed block		4
50100-A9	Nut		8
50100-A10	Set Screw	M5x6	8
50100-A10A	Set Screw	M5x4	1
50100-A11	Stop Bushing		1
50100-A12	Head		1
50100-A13	Leader Screw, Driver side		1
50100-A14	Leader Screw, Driver side		3
50100-A15	Aside Cover, Right		1
50100-A16	Cutting Scale		1
50100-A21	Hex Bolt	M6x35	4
50100-A22	Hex Nut	M6	8
50100-A23	Ball Bearing	6000ZZ	4
50100-A24	Ball Bearing Cover Plate		4
50100-A25	Socket Head Button Screw	M5x10	12
50100-A26	Sprocket Wheel		4
50100-A27	Flat Washer	M4	12
50100-A28	Base		1
50100-A29	Surface Plate		1
50100-A30	Chain		1
50100-A31	Socket Head Cap Screw	M5x22	4
50100-A32	Guide		2
50100-A33	Aside Cover, Left		1
50100-A34	Logo		1
50100-A35	Flat Head Screw	M3x40	2
50100-A36	Extension Table Support		4
50100-A37	Extension Table		2
50100-A38	Grip		2

50100-A39	Bushing		7
50100-A40	Socket Head Button Screw	M6x15	9
50100-A41	Socket Head Button Screw	M4x10	12
50100-A42	Socket Head Cap Screw	M6x15	4
50100-A43	Wave Washer		8
50100-A44	Fixed block		4
50100-A45	Socket Head Cap Screw	M8x10	2
50100-A46	Socket Head Cap Screw	M4x 10	4
50100-A47	Lock Washer	M4	12
50100-A48	Flat Head Screw	M3x25	2
50100-A49	Flat Washer	M4	4
50100-A50	Spacer	M10	4
50100-A51	Spacer	M12	4
50100-A52	External Tooth Washer	M5	2
50100-A53	Pan Head Screw	M5x10	2
50100-A54	ID Label		1
50100-A55	Feeding Speed Label		1
50100-A56	Block thickness limiter label		1
50100-A57	Adjustment block		1
50100-A58	Driven wheel		1
50100-A59	Magnet		4
50100-A60	Magnet Stand		2
50100-A61	Magnet Stand-short		2
50100-A62	Hex Nut	M3	4
50100-A63	S-Ring	S-10	1
50100-A64	Washer	M8	3

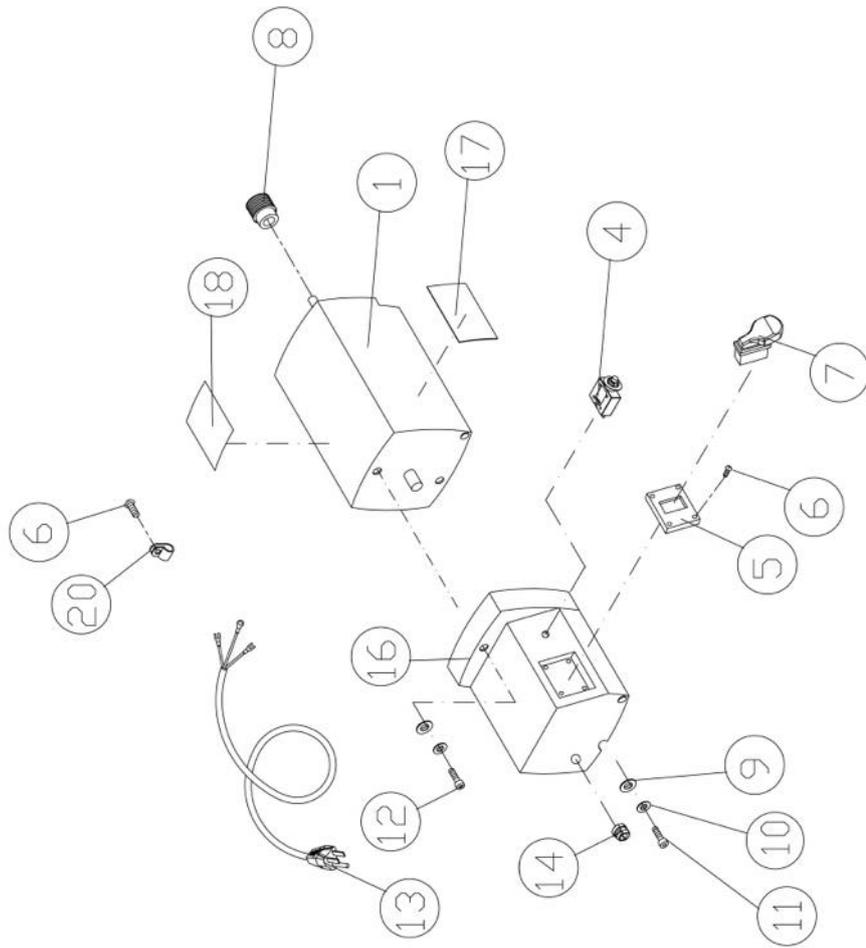


Head Assy

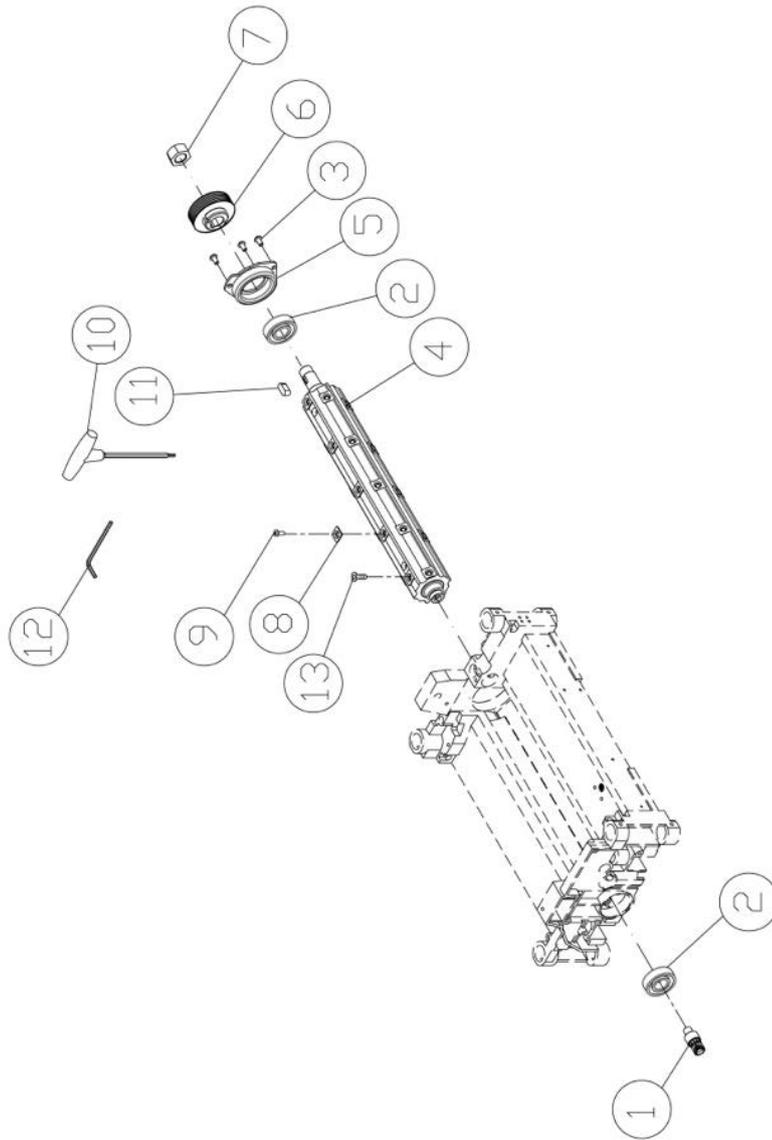
Head Assembly			
PART NO.	DESCRIPTION	SPECIFICATION	Qty
50100-B01	Gear Plate (Included #4 & #12)		1
50100-B04	Spacer		4
50100-B05	Gear Shaft	12t	1
50100-B06	Gear	52T	1
50100-B07	Gear		1
50100-B08	Pinion Gear		1
50100-B12	Spacer		1
50100-B10	Pin	ψ4*24mm	1
50100-B11	Shaft-Actuator		1
50100-B13	Gear	80 T	1
50100-B14	Gear	75 T	1
50100-B15	Shaft		1
50100-B16	Ball Bearing	6002	1
50100-B23	Bracket (included #4 & #16)		1
50100-B24	Spacer		2
50100-B25	Spacer		4
50100-B26	Chain Gear	8T	3
50100-B27	S-Ring	S-15	3
50100-B28A	Gear Guard (Included Sponge)		1
50100-B28-1	Sponge		2
50100-B29	Socket Round Head Screw	M5x35	2
50100-B30	Socket Head Cap Screw	M5x45	2
50100-B31	Cover		1
50100-B32	Socket Round Head Screw	M4x6	1
50100-B35	Deflector Plate		1
50100-B36	Deflector Cover		1
50100-B36A	Nut	M5	2
50100-B37	Block		4
50100-B38	Spring		4
50100-B39	Plate		4
50100-B40	Outfeed Roller		1
50100-B41	Infeed Roller		1
50100-B42	Chain	11 t	1
50100-B43	Socket Round Head Screw	M5x10	1
50100-B43-1	Socket Head Cap Screw	M5x10	8

50100-B44	Cutterhead		1
50100-B48	Belt Guard		1
50100-B49	Socket Head Button Screw	M4x10	2
50100-B50	Plate		1
50100-B51	Socket Round Head Screw	M6x10	2
50100-B52	Socket Round Head Screw	M8x20	1
50100-B53	Hex Bolt	M8x45	1
50100-B54	Hex Nut	M8	1
50100-B55	Pointer		1
50100-B56	Dust Chute		1
50100-B57	Clamp		2
50100-B58	Socket Round Head Screw	M5x12	2
50100-B59	Flat Washer	M4	1
50100-B59-1	Flat Washer		1
50100-B59-2	Flat Washer	M4	1
50100-B60	Cutting Depth Gauge		1
50100-B61	Arrow Plate		1
50100-B62	Spring		1
50100-B63	Shaft		1
50100-B64	Pointer		1
50100-B65	Spacer		1
50100-B66	Socket Round Head Screw	M4x12	1
50100-B67	Hex Nut	M4	1
50100-B68	Set screw	M5x6	1
50100-B69	Motor Assembly (Included #68 & #70)		1
50100-B70	Socket Head Cap Screw	M4x12	3
50100-B72	Chain	Long	1
50100-B73	Chain, infeed/ outfeed roller	Short	1
50100-B75	Socket Round Head Screw	M5x20	2
50100-B76	Belt	140J-6	1
50100-B77	Shaft		1
50100-B78	Lock Washer	M5	2
50100-B79	Bolt, Special	M5	2
50100-B80	Socket Round Head Screw	M4x12	2
50100-B81	Flat Washer	M4	2
50100-B84	Socket Head Button Screw	M4x20	2

50100-B86A	Socket Round Head Screw	M4x30	1
50100-B88	Flat Washer	M8x2t	1
50100-B88-1	Flat Washer	M8x3t	1
50100-B90	Warning label for Knife		1
50100-B90-1	replacement		
50100-B91	Dust collector adapter		1
50100-B92	Knob	M5x12	6



Motor Assembly			
PART NO.	DESCRIPTION	SPECIFICATION	QTY
50100-C1	Motor (included #17 & #18)		1
50100-C2	Motor Carbon Brush with Cap (not shown)		2
50100-C3	Motor Ground wire (not shown)		1
50100-C4	Overload Protector Assembly	20A	1
50100-C5	Switch Plate		1
50100-C6	Machine Screw	M5x12	5
50100-C7	Switch		1
50100-C8	Motor Pulley		1
50100-C9	Flat Washer	M5	2
50100-C10	Lock Washer	M5	2
50100-C11	Socket Round Head Screw	M5x16	1
50100-C12	Socket Round Head Screw	M5-0.8Px 35	1
50100-C13	Power Cable		1
50100-C14	Strain Relief		1
50100-C15	Wire, overload to switch (not shown)		1
50100-C16	Switch cover, included sponge		1
50100-C17	Warning Label		1
50100-C18	Motor Label		1
50100-C20	Clamp		1



Cutterhead Assembly

Cutterhead Assembly			
PART NO.	DESCRIPTION	SPECIFICATION	QTY
50100-D1	Shaft Gear	12t	1
50100-D2	Ball Bearing	6203ZZ	2
50100-D3	Socket Round Head Screw	M5x10	3
50100-D4	Cutterhead	13"	1
50100-D4A	Pin (Not shown)		5
50100-D5	Bearing Seat		1
50100-D6	Spindle Pulley		1
50100-D7	Nut (L. H.)	M16xP2.0	1
50100-D8	Insert		26
50100-D9	Screw		26
50100-D10	Torx Wrench		1
50100-D11	Key	5x5x12	1
50100-D12	Allen Key	4mm	1
50100-D13	Flat head Screw	M5x15	4