KING CANADA

12-1/2” PORTABLE PLANER

MODEL: KC-426C

INSTRUCTION MANUAL

IMPORTANT INFORMATION

2-YEAR LIMITED WARRANTY FOR THIS 12-1/2” PLANER	**KING CANADA TOOLS** OFFERS A 2-YEAR LIMITED WARANTY FOR NON-COMMERCIAL USE.

PROOF OF PURCHASE

Please keep your dated proof of purchase for warranty and servicing purposes.

REPLACEMENT PARTS

Replacement parts for this tool are available at our authorized KING CANADA service centers across Canada. For servicing, contact or return to the retailer where you purchased your product along with your proof of purchase.

LIMITED TOOL WARRANTY

KING CANADA makes every effort to ensure that this product meets high quality and durability standards. KING CANADA warrants to the original retail consumer a 2-year limited warranty as of the date the product was purchased at retail and that each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations and lack of maintenance. KING CANADA shall in no event be liable for death, injuries to persons or property or for incidental, special or consequential damages arising from the use of our products. To take advantage of this warranty, the product or part must be returned for examination by the retailer. Shipping and handling charges may apply. If a defect is found, KING CANADA will either repair or replace the product.

PARTS DIAGRAM & PARTS LISTS

Refer to the Parts section of the King Canada web site for the most updated parts diagram and parts list.

GENERAL SAFETY INSTRUCTIONS FOR POWER TOOLS

1. KNOW YOUR TOOL
Read and understand the owners manual and labels affixed to the tool. Learn its application and limitations as well as its specific potential hazards.

2. GROUND THE TOOL.
This tool is equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding type receptacle. The green conductor in the cord is the grounding wire. **NEVER** connect the green wire to a live terminal.

3. KEEP GUARDS IN PLACE.
Keep in good working order, properly adjusted and aligned.

4. REMOVE ADJUSTING KEYS AND WRENCHES.
Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

5. KEEP WORK AREA CLEAN.
Cluttered areas and benches invite accidents. Make sure the floor is clean and not slippery due to wax and sawdust build-up.

6. AVOID DANGEROUS ENVIRONMENT.
Don't use power tools in damp or wet locations or expose them to rain. Keep work area well lit and provide adequate surrounding work space.

7. KEEP CHILDREN AWAY.
All visitors should be kept a safe distance from work area.

8. MAKE WORKSHOP CHILD-PROOF.
-with padlocks, master switches or by removing starter keys.

9. USE PROPER SPEED.
A tool will do a better and safer job when operated at the proper speed.

10. USE RIGHT TOOL.
Don't force the tool or the attachment to do a job for which it was not designed.

11. WEAR PROPER APPAREL.
Do not wear loose clothing, gloves, neckties or jewelry (rings, watch) because they could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll up long sleeves above the elbows.

12. ALWAYS WEAR SAFETY GLASSES.
Always wear safety glasses (ANSI Z87.1). Everyday eyeglasses only have impact resistant lenses, thet are **NOT** safety glasses. Also use a face or dust mask if cutting operation is dusty.

13. DON'T OVERREACH.
Keep proper footing and balance at all times.

14. MAINTAIN TOOL WITH CARE.
Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

15. DISCONNECT TOOLS.
Before servicing, when changing accessories or attachments.

16. AVOID ACCIDENTAL STARTING.
Make sure the swich is in the ''OFF'' position before plugging in.

17. USE RECOMMENDED ACCESSORIES.
Consult the manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards.

18. NEVER STAND ON TOOL.
Serious injury could occur if the tool tips over. Do not store materials such that it is necessary to stand on the tool to reach them.

19. CHECK DAMAGED PARTS.
Before further use of the tool, a guard or other parts that are damaged should be carefully checked to ensure that they will operate properly and perform their intended function. Check for alignment of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other parts that are damaged should be properly repaired or replaced.

20. NEVER LEAVE MACHINE RUNNING UNATTENDED.
Turn power ''OFF''. Don't leave any tool running until it comes to a complete stop.

SPECIFIC SAFETY INSTRUCTIONS FOR PORTABLE PLANERS

1. Always wear eye protection when operating any machine.
2. Before starting up, check to make sure all holding screws are tight.
3. Always stop motor and disconnect from power source before making any adjustments.
4. Be sure all guards are in place before operating equipment
5. Read operator's manual thoroughly and familiarize yourself with machine before attempting to operate.
6. Do not force work through the machine. Allow the planer to apply the proper feed rate.
7. Check feed rollers occasionally to be sure chips and sawdust are not lodged between any components. If rollers are not seated firmly, the feed rolls will not hold stock firmly against the bed, allowing kickback.
8. Plane only wood boards.
9. Use sound lumber, with no loose knots, and as few tight knots as possible.
10. Never stand directly in line with either the infeed or outfeed sides. Always stand off to one side of the machine.
11. Be certain the workpiece is free of nails, screws, stones, and other foreign objects which could damage the knives.
12. Be sure the knives are properly installed as described in the instruc-tions.
13. The knives are sharp and can easily cut your hand. Use caution when handling the knives and cutterhead assembly.
14. Allow the cutterhead to reach full speed before using.

SPECIFICATIONS

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MOTOR:
VOLTS 120V (60HZ)
AMPS . . . . . 15A/120V, SINGLE PHASE

CUTTING CAPACITY:
LENGTH OF STOCK (MIN.) . . . . . 6” (153MM)
WIDTH OF STOCK (MAX.) . . . . . 12-1/2” (318MM)
THICKNESS OF STOCK . . . . . 1/4” - 6” (7~153MM)
DEPTH OF CUT (MAX.) . . . . . 1/8” (3MM)
FEED RATE . . . . . 26.2 FPM (8M/MIN)

CUTTERHEAD:
NUMBER OF KNIVES . . . . . 2, DOUBLE EDGED
DIAMETER . . . . . 1-13/16” (48MM)
IDLE RUNNING SPEED . . . . . 8,000 RPM
CUTS PER MINUTE 16,000

OVERALL DIMENSIONS:
LENGTH . . . . . 23”
WIDTH . . . . . 23-1/2”
HEIGHT . . . . . 19”

TABLE OF CONTENTS

CONTROLS & ADJUSTMENTS

ON/OFF SWITCH

Your planer has a rocker style switch with a removable locking key to prevent unauthorized use. If you intend to be away from the machine for a long period of time and there is any chance of it's use by others, especially children, remove the locking key with the switch in the OFF position. Store it in a safe inconspicuous place in your workshop. To turn the planer on, insert the red locking key and turn the switch to the ON position. The planer will then be operable. To turn the planer OFF, turn the switch to the OFF position.

WARNING: Always be sure the switch is in the OFF position before connecting the planer to a power source.

CIRCUT BREAKER SWITCH

The machine is provided with a breaker switch for overload protection. If an overload occurs, the switch will pop out. If this happens, wait several minutes, and press the switch to reset.

ADJUST DEPTH OF CUT

1. The thickness of stock running through the planer is controlled by the distance you adjust the cutting knife from the table.
2. Always start your work by making a light planing cut. The depth of cut on subsequent passes may be increased , up 3mm. But, remember that a light cut creates a finer finish than a heavier cut.
3. To adjust the depth of cut, turn the cutterhead-raising hand crank. The depth of cut adjustment can be read from the depth scale. The adjustment gradation is 2mm per revolution of the hand crank.

WARNING: Never plane more than 3mm in one pass and never attempt to plane a board under 6" in length. Always wear a protective face shield.

4. Do not plane stock which is less than 5mm thick.
5. Do not plane stock which is thicker than 6" (153mm).

ADJUSTING THE DEPTH OF CUT SCALE

For safe operation of your planer, it is very important that the depth of cut scale is read accurately. To adjust the depth of cut scale, follow the steps outlined below:

1. Try to feed a board for planing.
2. Compare the measured thickness of the board to the reading depth of cut scale.
3. If the reading on the depth of cut scale is incorrect, loosen the screw which tightens the plastic pointer and adjust accordingly.
4. When you have properly adjusted the depth of cut scale, test your reading by planing a piece of scrap lumber. After planing, measure the planed thickness and double check it against the scale reading. The two measurements should be the same. If the measurements are not the same, re-adjust your depth of cut scale to read the planed thickness.

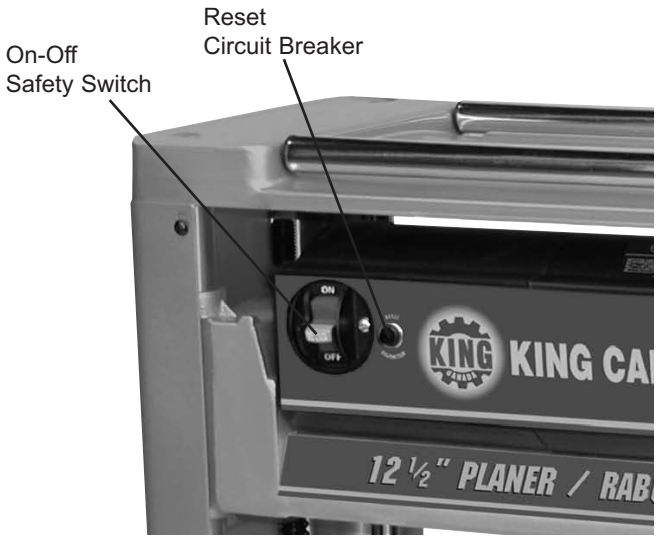


FIGURE 1

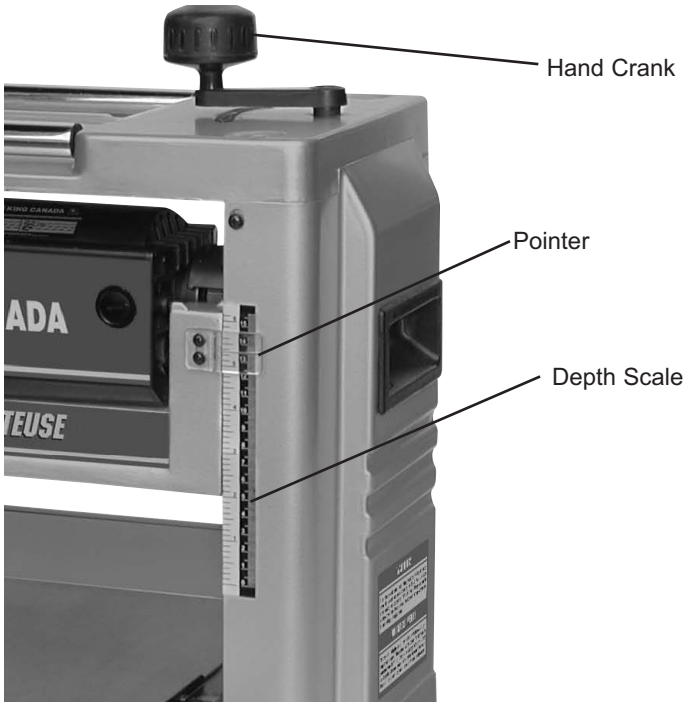


FIGURE 2

ADJUSTMENTS
REMOVING & INSTALLING KNIVES

REMOVING THE PLANER KNIVES

WARNING: Unplug you planer from the power source before removing the planer knives.

1. Remove the chip guard by removing the wing nuts as shown in Fig.3.

2. Loosen the lock bar (B) and knife by turning the lock screws (A) clockwise. The knives are spring loaded, and will push out when the assembly is loosened.

3. Take out the knife (C), and then the knife lock bar (B). Be careful, these are double-sided knifes and 1 edge may still be very sharp.

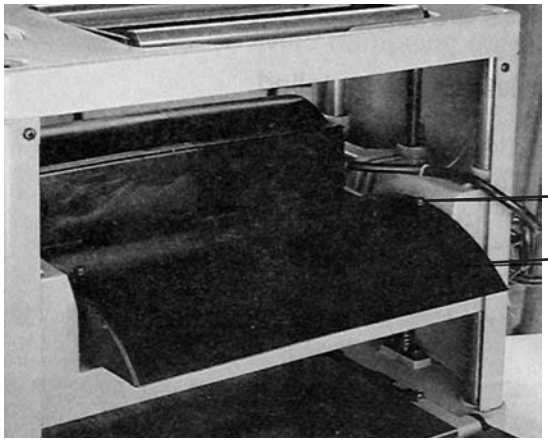
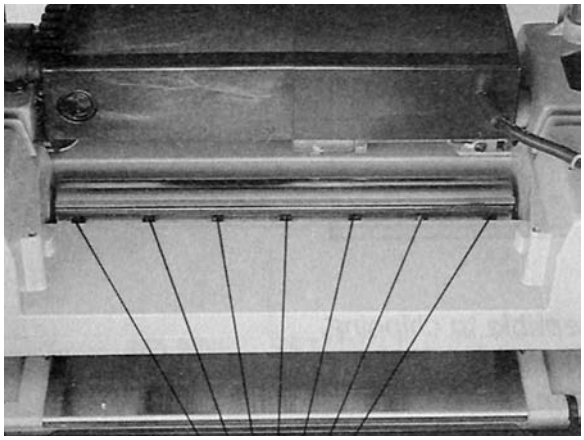


FIGURE 3



Bar Locking Screws

FIGURE 4

INSTALLING THE PLANER KNIVES

WARNING: Unplug your planer from it's power source before removing or installing planer knives.

1. Remove the knives according to the instructions for "Removing the Planer Knives".

2. Fit the knife lock bar (B) into the slot on the cutterhead.

3. Fit the knife into the slot on the cutterhead, and tighten the lockbar-knife assembly by turning the screws counter-clockwise. Make sure the knife is facing the correct direction.

4. Set the knife heights according to the instructions on the following page. The knife height must be reset every time the knives are taken out for any reason.

5. Be sure to replace the chip guard after knives are installed.

WARNING: The knife edge is very susceptible to chipping. Use caution when handling the gauge near the knives to avoid damaging them.

WARNING: The assembly must be tightened securely to prevent accidents during planing.

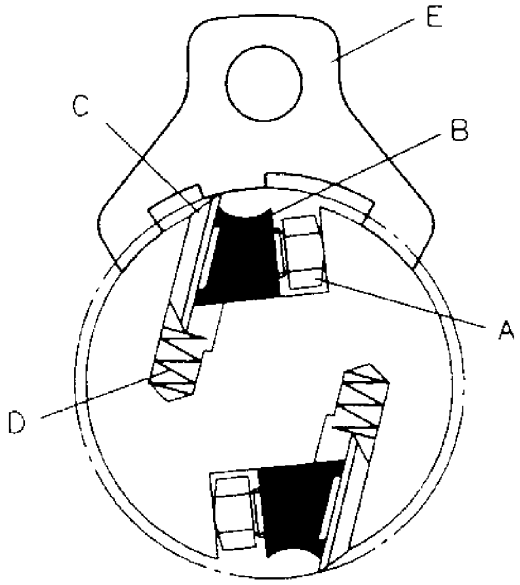


FIGURE 5

ADJUSTMENTS

SETTING THE KNIFE HEIGHT

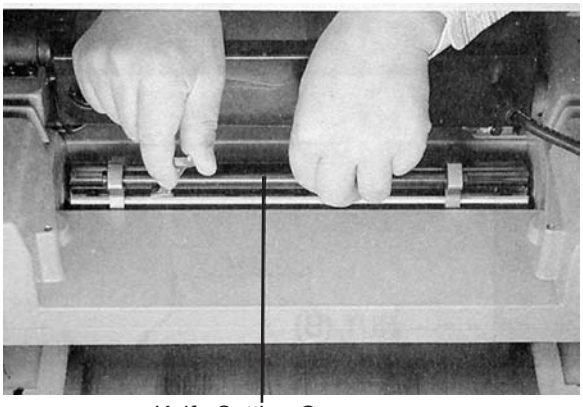
1. To obtain a knife projection of 1,5mm, place the knife setting gauge (E) on the cutterhead with both guides resting firmly against the knife.

2. Loosen the assembly by turning the 7 screws (A) clockwise with an open end wrench.

3. When the knife is pressed to the proper height by the guides on the gauge, retighten the assembly by turning the screws counterclockwise. Make sure all seven lock screws are tightened properly.

WARNING: The knife edge is very susceptible to chipping. Use caution when handling the gauge near the knives to avoid damaging them.

WARNING: The assembly must be tightened securely to prevent accidents during planing.



Knife Setting Gauge

FIGURE 6

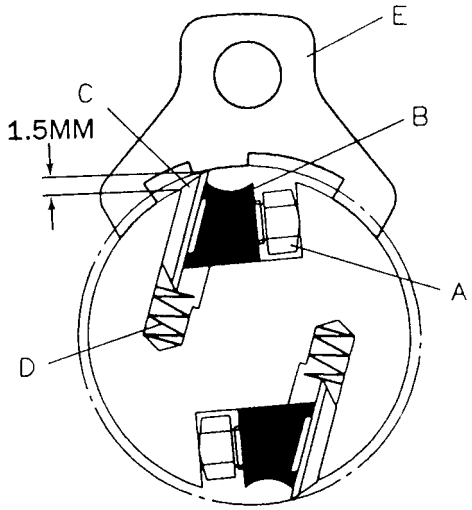


FIGURE 7

ADJUSTING THE TABLE EXTENSIONS

1. The table extensions are mounted at the front and rear ends of the main table.

2. Raise the cutterhead assembly so that you can get a clear view and work comfortably adjusting the extensions.

3. Place a straight edge across the main table and table extension to be adjusted .

4. If the main table and table extension roller are not aligned, then adjust the table extension by loosening nut (B) and turning screw (A) until the extension table just touches the straight edge. adjust the right and left side of the table extension in this way.

5. The roller has been factory set to align with the table extension, and requires no further adjustment.

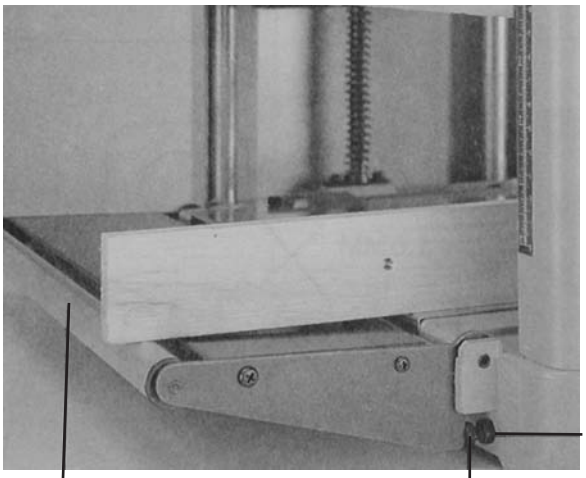


FIGURE 8

ADJUSTMENTS

MAKING THE CUTTERHEAD AND WORKTABLE PARALLEL

Plane a workpiece and measure the workpiece thickness after the cut. If the thickness is not the same on both sides of the workpiece, perform the following.

Adjust the cutter shaft and the worktable so they are parallel. The tools used for checking are shown below. Please use hardwood to make a tool gauge block according to the sizes (mm) shown in the figure below. Place the block between the cutterhead and the bed and then make the adjustment as per the following procedures.

1. Underneath the main table, loosen the “C” circlip as shown below.

2. Disengage the bevel gear next to the circlip.

3. Turn the bevel gear to adjust the height of that side of the cutterhead. One turn of a tooth counterclockwise gives 0.12mm raising thickness.

4. After adjustment, re-engage the bevel gear and replace the “C” circlip.

5. Reverify the adjustment on both sides of the table with your gauge block, readjust if necessary.

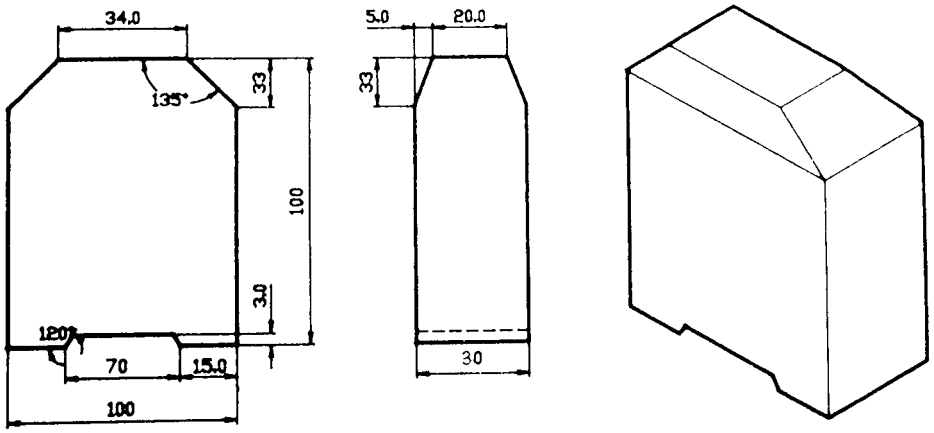


FIGURE 9

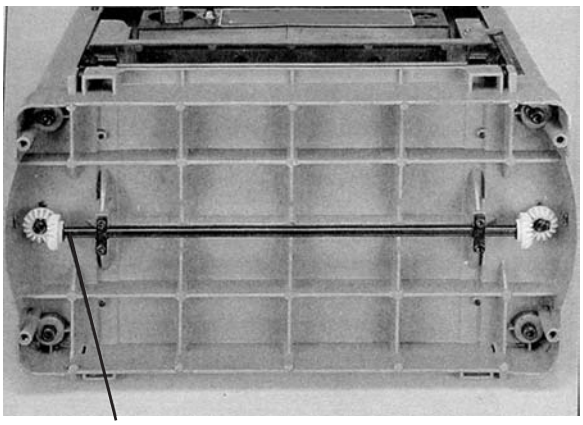


FIGURE 10

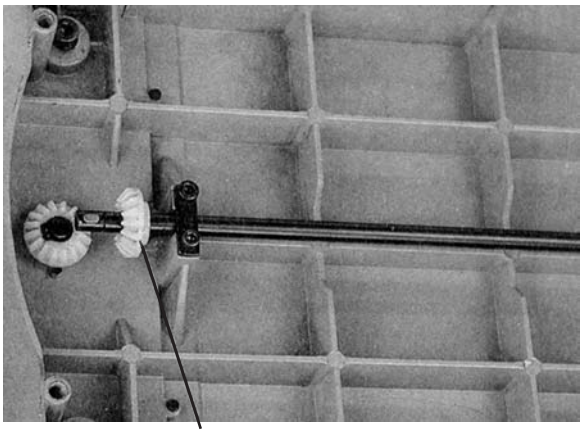


FIGURE 11

OPERATIONS & MAINTENANCE

PLANING FOR FINISH

Planing for a smooth finish as well as thickness is best accomplished by taking light cuts on the board. However, several other things are important besides light cuts to achieve a smooth finish.

Always feed the board in a direction that allows the planer blades to cut with the grain. This aids the knife in severing the wood fibers rather than lifting and tearing the fibers. Torn fibers give a fuzzy appearance to the surface. Feeding against the grain can also cause your knife to lift large chips from the board's surface, causing a very unsightly appearance.

THICKNESS PLANING

Thickness planing is the sizing of material to a desired thickness, while creating a smooth surface parallel to the opposite side of the board.

The art of thickness planing consists mainly of using good judgement about the depth of cut in various situations. You must take into account not only the width of the stock, but the hardness of the board, its dampness, straightness, grain direction, and grain structure.

The effects of these factors upon the quality of the finished work can only be learned through experience. It is always advisable, whenever working with a new type of wood, or one with unusual problems, to make test cuts on scrap material if possible prior to working on your finished product.

FOR ADDITIONAL PLANING

If more material needs to be removed, hand crank the cutterhead no more than 3mm and complete another pass. Repeat this process until the desired thickness has been reached.

LUBRICATION

1. The recommended lubrication for roller chains used in medium to slow speed operation is to simply wipe the chain clean. When there is an appreciable build-up of dust, dirt or wood-shavings, coat chain with a light film of oil but never pour the oil directly on the chain. Over-oiling defeats the purpose of the lubrication, since it simply tends to hasten the collection of dust, shavings, etc., and works them into members of the chain. This hastens wear and leads to premature replacement. This applies to the speed reduction and height adjustment chains, as well as the elevation screws.

2. The bearings on the cutterhead are factory lubricated and sealed. They require no further attention.

PERIODIC MAINTENANCE

Buildup of sawdust and other debris can cause your machine to plane inaccurately. Periodic cleaning is not only recommended, but mandatory for accurate precision planing.

1. Close-fitting parts, such as the lockbars and the planer cutterhead slots should be cleaned with a brush and freed from clinging foreign matter and then replaced in their respective positions, slightly dampened with oil.

2. Remove resin and other accumulations from feed rolls and table with a non-flammable solvent.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	REMEDY
FUZZY GRAIN	1. Planing wood with high moisture content. 2. Dull knives.	1. Dry the wood. 2. Sharpen knives.
TORN GRAIN	1. Too heavy a cut. 2. Knives cutting against the grain. 3. Dull Knives.	1. Review proper depth of cut. 2. Feed wood with the grain, or turn workpiece around. 3. Sharpen knives.
ROUGH/RAISED GRAIN	1. Dull knives 2. Knives cutting against the grain. 3. Moisture content too high. 4. Cutterhead bearings damaged.	1. Sharpen knives. 2. Review proper depth of cut. 3. Dry the wood. 4. Replace bearings.
POOR FEEDING OF LUMBER	1. Planer table dirty. 2. Feed roller damaged. 3. Sprocket damaged. 4. Gear box malfunction.	1. Clean off pitch and residue, and lubricate planer table. 2. Replace. 3. Replace. 4. Check gear box.
WORKPIECE JAMMED	1. Inadequate knife setting height.	1. Set the knives to the correct height.
UNEVEN DEPTH OF CUT SIDE TO SIDE	1. Knife projection not uniform. 2. Cutterhead not levelled to planer bed.	1. Adjust knife projection. 2. Level cutterhead to table.
BOARD THICKNESS DOESN'T MATCH DEPTH OF SCALE CUT	1. Depth of cut scale incorrect.	1. Adjust depth of cut scale.
CHAIN JUMPING	1. Sprockets misaligned. 2. Sprockets worn.	1. Align sprockets. 2. Replace sprockets.
MECHANICAL/ELECTRICAL MACHINE WON'T START/RESTART	1. Not plugged in. 2. Circut breaker/fuse 3. Motor failure. 4. Loose wire. 5. Overload reset has not reset. 6. Motor starter failure.	1. Check power source. 2. Check power source. 3. Have motor checked. 4. Have motor checked by qualified electrician. 5. Allow machine to cool down and restart. 6. Have motor starter checked by qualified electrician.
REPEATED CIRCUT TRIPPING RESULTING IN MOTOR STOPPAGE	1. Extension cord too long or too thin. 2. Knives too dull. 3. Low voltage running.	1. Use a shorter or thicker extension cord. 2. Sharpen or replace knives. 3. Check voltage.