



12" INDUSTRIAL WOODWORKING JOINTER



MODEL: KC-120FX (220V) & KC-120FX-5 (550V)

INSTRUCTION MANUAL

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IMPORTANT INFORMATION



**2-YEAR
LIMITED WARRANTY
FOR THIS 12" INDUSTRIAL JOINTER**

**KING CANADA TOOLS
OFFERS A 2-YEAR LIMITED WARRANTY
FOR INDUSTRIAL 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

- 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.**
Use padlocks, master switches or remove 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, they 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 switch 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 JOINTERS

- 1. WARNING!** Do not operate the jointer until it is completely assembled and installed according to the instructions.
- 2. NEVER** perform jointing or planing operations with the cutterhead guard removed.
- 3. NEVER** start the jointer with the workpiece contacting the cutterhead.
- 4. NEVER** perform any operation "free-hand" which means using your hands to support or guide the workpiece. **ALWAYS** use the fence to position and guide the work.
- 5. AVOID** awkward operations and hand positions where a sudden slip could cause your hand to move into the cutterhead.
- 6. ALWAYS** use a hold-down/push blocks for jointing material less than 3 inches in height or planing material thinner than 3 inches.
- 7. DO NOT** perform planing operations on material shorter than 10 inches, narrower than 3/4", wider than 12 inches or less than 1/2" thick.
- 8. NEVER** make jointing or planing cuts, deeper than 1/8 inch. On cuts more than 1-1/2 inches wide, adjust depth of cut to 1/16 inch or less to avoid overloading machine and to minimize chance of kick-back (work thrown back toward you).

ELECTRICAL CONNECTIONS



WARNING!

ALL ELECTRICAL CONNECTIONS MUST BE DONE BY A QUALIFIED ELECTRICIAN. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY! ALL ADJUSTMENTS OR REPAIRS MUST BE DONE WITH THE MACHINE DISCONNECTED FROM THE POWER SOURCE. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY!

KC-120FX POWER SUPPLY (220V-1 PHASE)

WARNING: YOUR KC-120FX (220V) MUST BE CONNECTED TO A 220V, 20-AMP, BRANCH CIRCUIT. FAILURE TO CONNECT IN THIS WAY CAN RESULT IN INJURY FROM SHOCK OR FIRE.

220V OPERATION

As received from the factory, your 12" Jointer is wired for 220V operation. This 12" Jointer is intended for use on a circuit that has an outlet and a plug which looks like the one illustrated in Fig.1.

KC-120FX-5 POWER SUPPLY (550V- 3 PHASE)

WARNING: YOUR KC-120FX-5 (550V) MUST BE CONNECTED TO A 550V CIRCUIT. FAILURE TO CONNECT IN THIS WAY CAN RESULT IN INJURY FROM SHOCK OR FIRE.

550V OPERATION

As received from the factory, your 12" Jointer is wired for 550V operation. There is no 550V plug supplied with this Jointer, a 550V CSA approved plug will need to be purchased, therefore we recommend contacting an authorized service center or qualified electrician to install the plug in order to comply with all local and national codes.

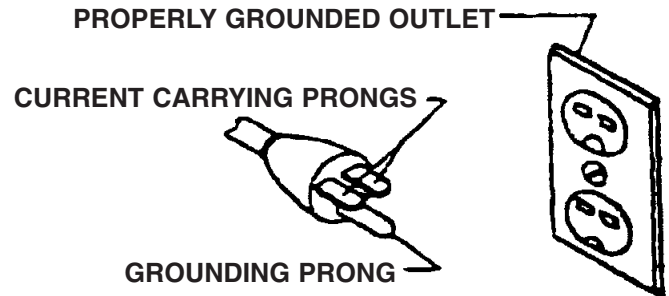


FIGURE 1

GENERAL INFORMATION

These Jointers must be grounded. If one should malfunction or breakdown, grounding provides a path of least resistance for electric current, to reduce the risk of electric shock. These Jointers are equipped with a cord having an equipment-grounding conductor and grounding plug (grounding plug-220V only). The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.



UNPACKING & ASSEMBLY

UNPACKING AND CLEANING THE JOINTER

Remove crate panels and carefully unpack the jointer fence and all loose items (inside dust chute) from the wooden crate. Remove the protective coating from the machined surfaces of the jointer. This coating may be removed with a soft cloth moistened with kerosene (do not use acetone, gasoline, or lacquer thinner for this purpose). After cleaning, cover all unpainted surfaces with a good quality paste wax.

UNBOLTING JOINTER FROM CRATE BASE

It is necessary to unbolt the jointer from the crate before placing it on a solid, level workspace. These bolts can be accessed by opening the rear belt cover/motor cover and the side door (using supplied keys) on the right side of cabinet. See (A) Fig.3 as reference.

This jointer is very heavy, use a forklift or hoists to lift and position it into place.

MOUNTING ON/OFF SWITCH BRACKET TO THE UP POSITION

1. This jointer comes with the on/off switch bracket (A) Fig.4 assembled upside down to protect it during transport. Unbolt the switch bracket at the rear of the jointer by removing the 2 cap screws (B), pivot the bracket 180° and refasten the switch bracket using the same 2 caps crews, see Fig.5.

ASSEMBLING FENCE TO REAR OF CABINET

1. Assemble the fence (A) Fig. 6 to the rear of the cabinet by aligning the fence mounting holes with the holes in the cabinet, fasten the fence using 2 cap screws and washers (B).

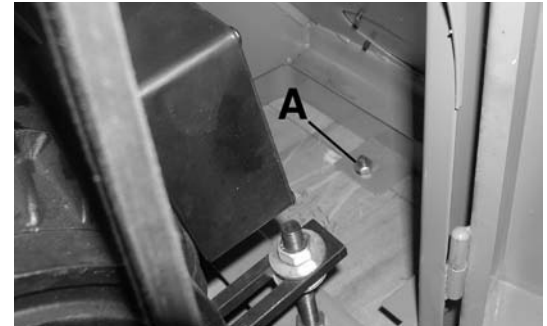


FIGURE 3

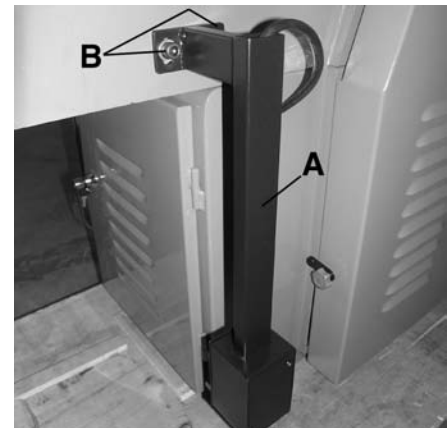


FIGURE 4

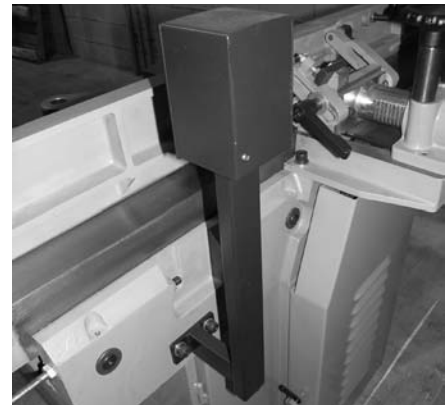


FIGURE 5

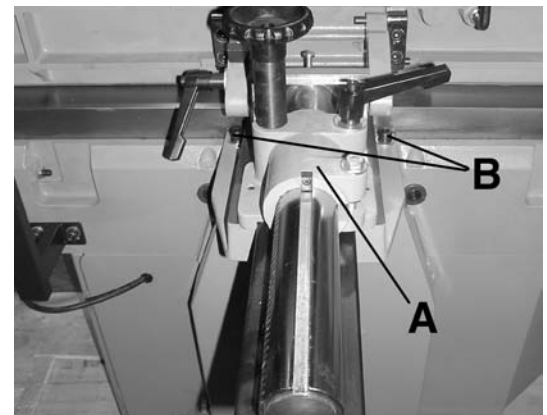


FIGURE 6

OPERATING CONTROLS & ADJUSTMENTS



TURNING JOINTER ON & OFF

The On/Off switch is conveniently located on a post, behind the jointer fence, for easy accessibility. To start the jointer, press the start button (A) Fig. 7, and to stop the jointer, press the stop button (B).

FENCE OPERATION

Moving fence forward or backward

The fence (A) Fig. 8, can be positioned anywhere across the table by loosening lock lever (B) and rotating handwheel (C). Once the fence is moved to its desired position, retighten lock lever (B) securely. As the fence (A) is moved across the table, the sliding portion of the column (D) protects you from the cutterhead during operations.

Tilting the fence

To tilt the fence (A) Fig.9 to the right or to the left, loosen lock handle (B), move the fence to the desired angle and tighten lock handle (B) securely.

NOTE: When tilting the fence to the right (outward), the stop plate (C) must be rotated to the up position in order to allow the fence to go past it.

IMPORTANT: When cutting a bevel, it is recommended whenever possible to tilt the fence towards the table. The fence will then form a V-shape with the tables, and the work is easily pressed into the pocket while passing it across the knives.

Adjusting fence positive stops

The fence on your jointer is equipped with positive stops at the most common fence positions (90° & 45° right and left). To check and adjust the positive stops, proceed as follows:

1. Position the fence 90° to the table making sure tip of stop bolt (A) Fig.10 is against stop plate (B). Then tighten lock handle (C).
2. Using a square, check to see if the fence is at 90° to the table.
3. If the fence is not at 90° to the table, loosen lock handle (C) and lock nut (D). Turn stop bolt until its tip contacts the stop plate (B), tighten lock handle (C).
4. Tilt the fence inward as far as possible and using a combination square (45°), check to see if the fence is tilted inward 45° to the table. If an adjustment is necessary, loosen nuts (E) and adjust bolts (F) until tips of bolts (F) contact brackets (G).
5. Tilt the fence outward as far as possible and using a combination square (45°), check to see if the fence is tilted outward 45° to the table. NOTE: 90° stop plate (B-Fig.10) must be rotated up in order to tilt the fence outward. If an adjustment is necessary, loosen lock nut (A) Fig. 11, and adjust bolt (B) until head of bolt (B) contacts back of fence.

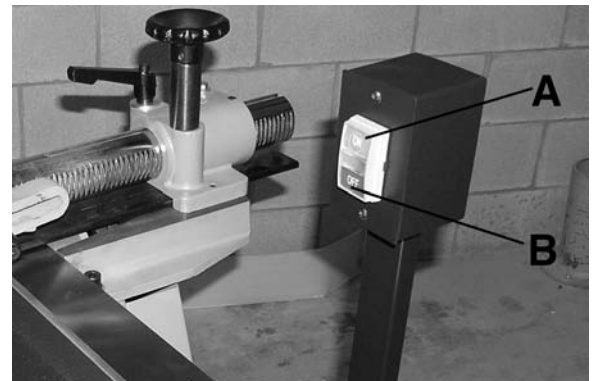


FIGURE 7

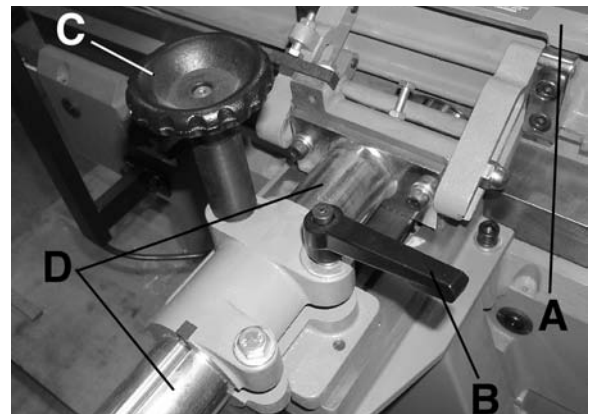


FIGURE 8

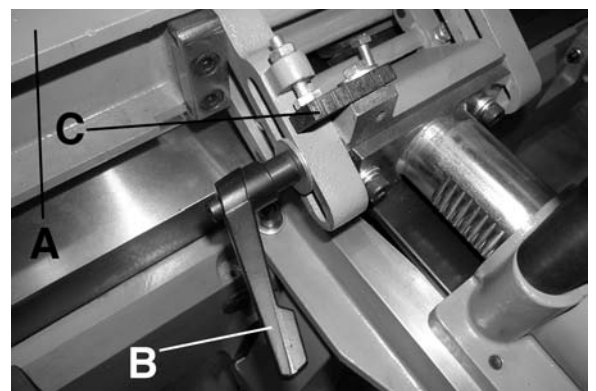


FIGURE 9

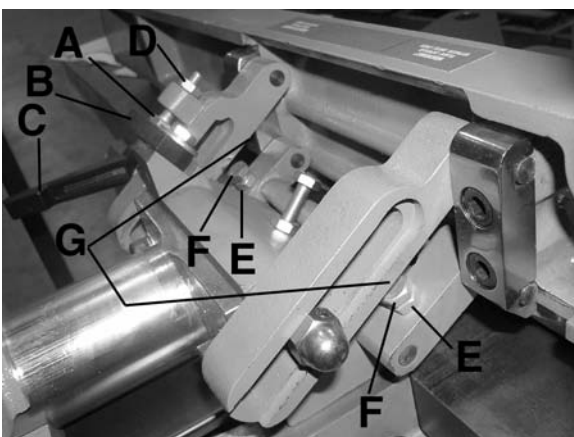


FIGURE 10

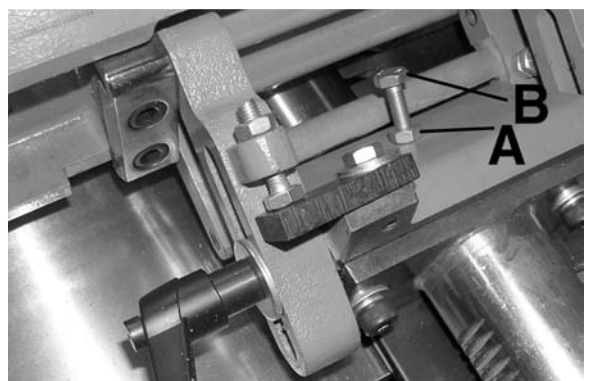


FIGURE 11



OPERATING CONTROLS & ADJUSTMENTS

INFEED TABLE ADJUSTMENTS

To raise or lower the infeed table, loosen table lockhandle (A) Fig. 12, and move the table raising and lowering hand lever (B), up or down until the table is at the desired position and tighten table lockhandle (A). NOTE: The table lockhandle (A) can be repositioned by pulling out the handle and repositioning it on the serrated nut located under the handle. The depth of cut of the infeed table (position of table in relationship with the cutting circle) can be read with the pointer and scale (C).

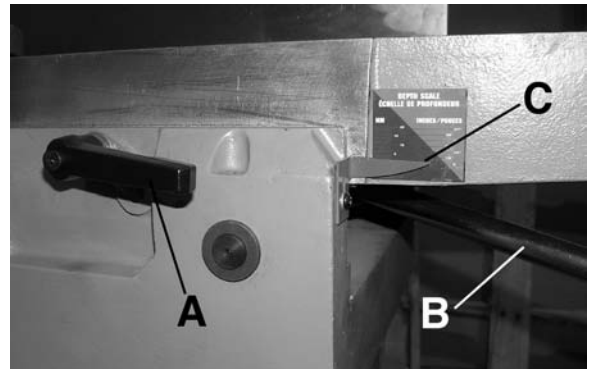


FIGURE 12

Positive stops are provided on the jointer to limit the height and depth of the infeed table. To adjust the stops, loosen two locknuts (A) and (B) Fig. 13, and turn the two adjustment bolts (C) and (D) as necessary. Retighten locknuts (A) and (B). We recommend that the height of the infeed table be adjusted so the table at its highest point will be 1/2mm below the highest point of the knives. This is an important feature of your jointer which enables you to rapidly position the infeed table for a finish or final cut.

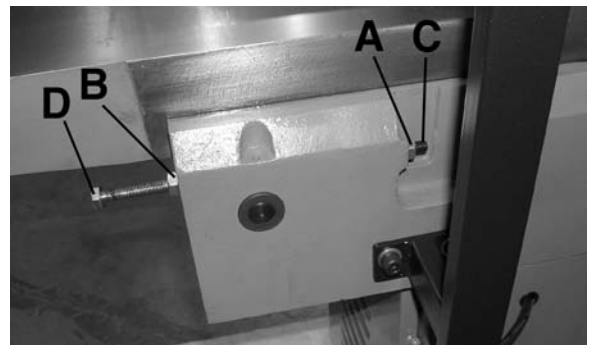


FIGURE 13

OUTFEED TABLE ADJUSTMENTS

For most jointing operations the outfeed table must be exactly level with the knives at their highest point of revolution. To move the outfeed table, loosen lockhandle (A) Fig. 14, and move the table raising and lowering hand lever (B) up or down until the table is level with the knives. It may be necessary to adjust the positive stops. Loosen the two locknuts (A) and (B) Fig. 15, and the two adjusting bolts (C) and (D) when moving the table up or down.

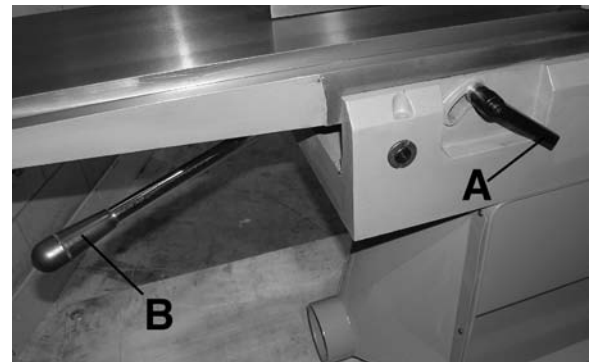


FIGURE 14

When the table is exactly level with the knives at the highest point of revolution, tighten lockhandle (A) Fig. 14, and turn adjusting bolt (C) Fig. 15, until it bottoms; then tighten locknut (A). Bolt (D) is also a positive stop for the lower limit of the outfeed table. We suggest that this stop also be tightened when the outfeed table is set level with the knives. This will prevent the outfeed table from accidentally being lowered.

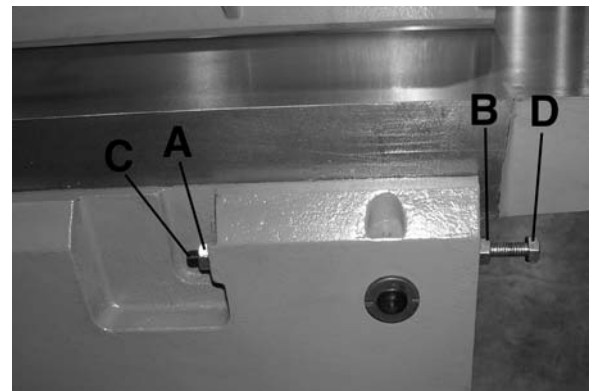


FIGURE 15

ADJUSTMENTS



ADJUSTING BELT TENSION

The jointer comes with two V-belts installed and properly tensioned to the cutterhead and motor pulley. If it becomes necessary to adjust belt tension, proceed as follows:

1. DISCONNECT THE MACHINE FROM THE POWER SOURCE.
2. Loosen knob (A) Fig.16 and pull the handle latch (B) upwards and open rear hinged door (C).
3. To adjust belt tension, turn nuts (A) and (B) Fig. 17 to move motor plate (C) up or down until there is approximately 1/2" deflection in the center span of the V-belts (D) using light finger pressure.

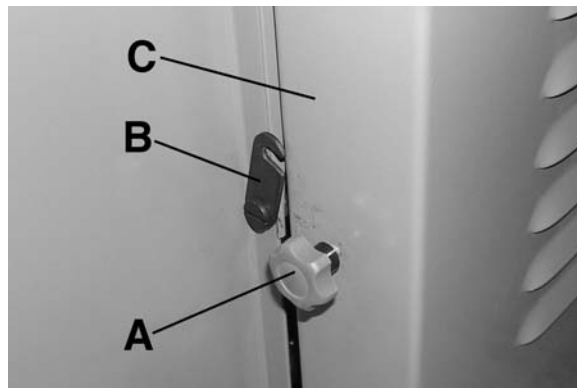


FIGURE 16

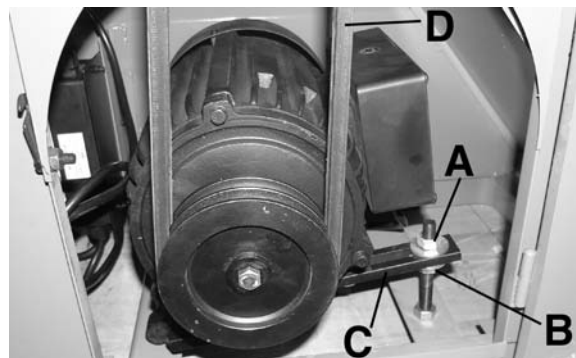


FIGURE 17

ADJUSTING SPRING TENSION OF CUTTERHEAD GUARD

The cutterhead guard (A) Fig. 18, completely covers the cutterhead. During operation the material being jointed or planed pushes the guard out of the way and at the completion of the cut, the guard springs back over the cutterhead providing full coverage. If it ever becomes necessary to adjust the spring tension of the cutterhead guard, loosen two set screws (B) and turn screw (C) clockwise to increase or counterclockwise to decrease the spring tension. Then retighten the two set screws (B).

Warning! Before operating jointer, check guard to make sure it functions properly and quickly returns to the closed position.

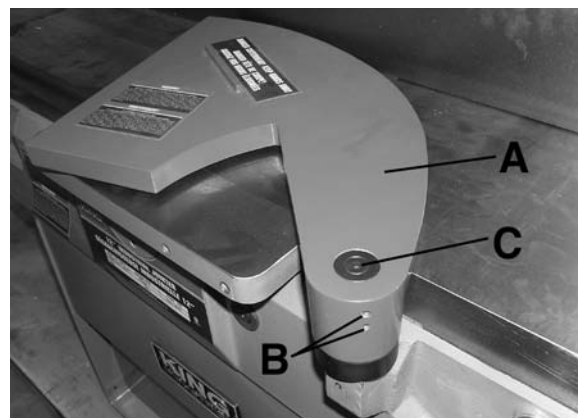


FIGURE 18



ADJUSTMENTS

REMOVING, REPLACING AND RESETTING KNIVES

If the knives are removed from the cutterhead for replacement or regrinding, care must be used in removing and replacing them as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**
2. Be extremely careful that your hands do not come in contact with the cutterhead. Move the fence to the rear and remove the cutterhead guard.
3. Using wrench (A) Fig. 19, slightly loosen the 6 locking screws (B) in each knife slot to relieve stress in the cutterhead by turning them clockwise.
4. Loosen screws further and remove the knives (C) from the cutterhead.
5. When the three knives are removed from the cutterhead, lower the two knife raising "jackscrews" with a hex. key by turning the two screws (D) counterclockwise. Then lower the knife raising "jackscrews" in each of the two remaining cutterhead slots in the same manner.
6. When replacing, insert the knife into the slot in the cutterhead, making certain the bottom of the knife engages the cut out in the knife raising "jackscrews" and push the knife down as far as possible. **CAUTION:** Care must be taken when inserting the knives as the cutting edges are very sharp.
7. Tighten the knife locking screws by turning each one counterclockwise just enough to hold the knife in position. Replace the remaining two knives in the same manner.

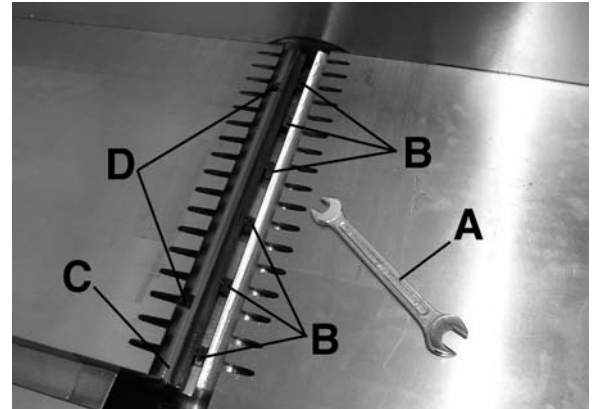


FIGURE 19

ADJUSTING KNIVES

The knives are adjusted correctly when the cutting edge of the knife extends out .015" from the diameter of the cutterhead. To adjust the knives proceed as follows:

1. Carefully rotate the cutterhead (A) Fig. 20 manually until the round portion of the cutterhead is on top.
2. Place a .015" feeler gauge (B) on the cutterhead and using a straight edge (C) on the rear table, adjust the height of the rear table (D), until unit is .015" above the cutterhead diameter.
3. Lock the outfeed table in position and remove the feeler gauge (B).
4. Lower the infeed table and place a straight edge on the outfeed table extending over the cutterhead.
5. Rotate the cutterhead by hand. The knife should just touch the straight edge at its highest point at each end of the cutterhead.
6. To raise the knife, use a hex. key and turn "jackscrews" clockwise until the knife just touches the straight edge. Repeat this procedure on other side of the cutterhead.
7. Tighten the 6 knife locking screws. Adjust the remaining two knives in the same manner. **CAUTION:** Make certain all the knives are securely fastened before turning on the machine.
8. Replace cutterhead guard after adjustments are made.

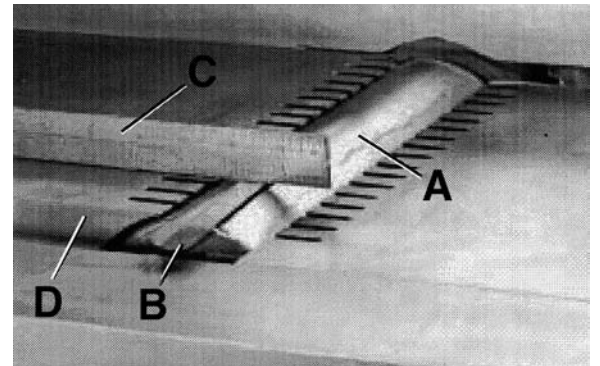


FIGURE 20