

03/2013



15" INDUSTRIAL PLANER



MODEL: KC-382CFX

INSTRUCTION MANUAL

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WARRANTY INFORMATION

<p>2-YEAR LIMITED WARRANTY FOR THIS 15" PLANER</p>	<p>KING CANADA TOOLS OFFERS A 2-YEAR LIMITED WARRANTY FOR COMMERCIAL USE.</p>
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PROOF OF PURCHASE

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

REPLACEMENT PARTS

Replacement parts for this product are available at our authorized King Canada service centers across Canada.

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, normal wear and tear, negligence or accidents, repairs done by an unauthorized service center, 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 limited warranty, return the product at your expense together with your dated proof of purchase to an authorized King Canada service center. Contact your retailer or visit our web site at www.kingcanada.com for an updated listing of our authorized service centers. In cooperation with our authorized serviced center, King Canada will either repair or replace the product if any part or parts covered under this warranty which examination proves to be defective in workmanship or material during the warranty period.

NOTE TO USER

This instruction manual is meant to serve as a guide only. Specifications and references are subject to change without prior notice.

PARTS DIAGRAM & PARTS LISTS

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

KING CANADA INC. DORVAL, QUÉBEC, CANADA H9P 2Y4

www.kingcanada.com

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, that are **NOT** safety glasses. Also use a face or dust mask if 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 YOUR INDUSTRIAL PLANER

1. **This machine is designed and intended for use by properly trained and experienced personnel only.** If you are not familiar with the proper use of planers, do not use this machine until proper training and knowledge has been obtained.

2. **Keep cutterhead sharp and free of all rust and pitch.**

3. **Check material** for loose knots, nails and other defects.

4. **Remove shavings** only with the power off.

5. **Keep hands away** from the top surface of the board near the feed rollers.

6. **Check that the switch is in the OFF** position before plugging in power cord.

7. **Before moving head** upwards or downwards, loosen the head locking knob. The locking knob is on the right side of machine.

8. **Be sure the knives** of cutterhead are correct and all lock bolts are secured tightly before use.

9. **Keep hands away** from the feed rollers and the cutterhead.

10. **Do not operate** machine while the gear cover is open.

11. **Remove adjusting tools** and loose articles from machine before operating.



ELECTRICAL INFORMATION

WARNING!

ALL ADJUSTMENTS OR REPAIRS MUST BE DONE WITH THE PLANER DISCONNECTED FROM THE POWER SOURCE. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY!

GENERAL INFORMATION- 220V single phase operation

This planer comes with a 3 HP 220V single phase motor which draws 18 amps under maximum load.

WARNING: IT IS RECOMMENDED TO USE A DEDICATED CIRCUIT FOR THIS MACHINE. YOUR PLANER MUST BE CONNECTED TO A 220V-240V, 1 PHASE, 30 AMP BRANCH CIRCUIT AND USE A 30 AMP TIME DELAY FUSE OR CIRCUIT BREAKER. FAILURE TO CONNECT IN THIS WAY CAN RESULT IN INJURY FROM SHOCK OR FIRE.

This planer is intended for use on an electrical circuit that has an outlet and a plug which looks like the one illustrated in Fig.1.

WARNING: DO NOT USE A TWO-PRONG ADAPTOR FOR THEY ARE NOT IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES. NEVER USE IN CANADA.

GROUNDING

Your planer must be properly grounded. Not all outlets are properly grounded. If you are not sure if your outlet is properly grounded, have it checked by a qualified electrician. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current, to reduce the risk of electric shock. This planer is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING: TO MAINTAIN PROPER GROUNDING OF YOUR PLANER, DO NOT REMOVE OR ALTER THE GROUNDING PRONG IN ANY MANNER.

WARNING: IF NOT PROPERLY GROUNDED, THIS PLANER CAN CAUSE ELECTRICAL SHOCK, PARTICULARLY WHEN USED IN DAMP LOCATIONS. TO AVOID SHOCK OR FIRE, IF THE POWER CORD IS WORN OR DAMAGED IN ANY WAY, HAVE IT REPLACED IMMEDIATELY.

EXTENSION CORDS

The use of an extension cord is generally not recommended for 220V-240V operation. The use of any extension cord will cause some loss of power. Use the table (Fig.2) to determine the minimum wire size (A.W.G-American Wire Gauge) extension cord needed. Use only 3-wire extension cords which have 3-prong grounding type plugs and 3-hole receptacles which accept the tool's plug.

For circuits that are further away from the electrical circuit box, the wire size must be increased proportionately in order to deliver ample voltage to the planer motor. Refer to Fig.2 for wire length and size.

230V-240V MAGNETIC SWITCH

Positioned on the left side of the planer is the magnetic switch (Fig.3). The ON button (A) Fig.3 turns the planer motor "ON".

This magnetic switch is equipped with an Emergency Twist OFF (Stop) button (B) which turns the planer motor "OFF". To reset the magnetic switch and to turn the machine on again, first push the Emergency Twist OFF (Stop) button (B) in, then twist it clockwise until it pops out. The magnetic switch ON button (A) will only work once the OFF button has popped out.

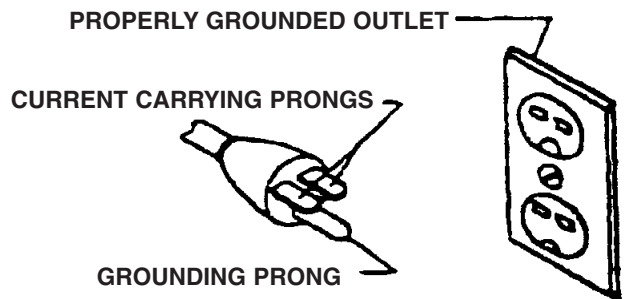


FIGURE 1

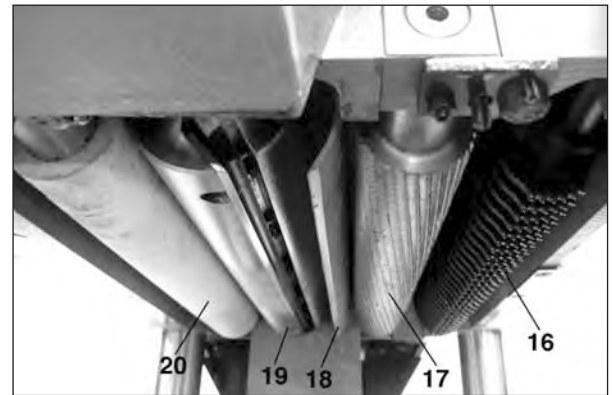
<u>LENGTH OF EXTENSION CORD</u>	<u>WIRE SIZES REQUIRED (AMERICAN WIRE GAUGE)</u> <u>220V-240V LINES ONLY</u>
0-25 FEET	NO.14
26-50 FEET	NO.12
51-100 FEET	NO.12

FIGURE 2



FIGURE 3

GETTING TO KNOW YOUR INDUSTRIAL PLANER



1. Extension table
2. Main table
3. Columns (1 of 4)
4. Table rollers
5. Head casting
6. Magnetic switch
7. V-belt housing and cover
8. 3 HP, 240V Motor
9. Head raising/lowering handwheel
10. 4" dust chute
11. Gear box
12. Head casting lock knob (1 of 2)
13. Feed speed shifter knob
14. Scale
15. Built-in mobile base
16. Anti-kickback fingers
17. Serrated infeed roller
18. Chip breaker
19. Cutterhead
20. Outfeed roller

SPECIFICATIONS

KC-382CFX 15" INDUSTRIAL PLANER TECHNICAL INFORMATION

Motor	3HP, 240V, 18Amp., 1 Phase, 60Hz
Power transfer	3 V-belts
Capacities:	
Minimum Length of unbutted stock.....	8"
Maximum width of stock	15"
Maximum Thickness of stock	6"
Maximum depth of cut	1/8"
Feed Rates	16/30 FPM
Jackscrew Cutterhead:	
Number of knives	3
Diameter	3"
Speed	5,000 RPM
Cuts per minute	15,000
Number of cuts per inch	78/42
Feed Rolls:	
Spiral Infeed Diameter	2"
Table rollers	2 Adjustable
Other:	
Table size with front and rear extension tables.....	15.3" wide x 42" deep



ASSEMBLY

ASSEMBLING WHEEL ASSEMBLY TO CABINET

1. Position the wheel assembly (A) Fig.4 in between the mounted bracket (B). Align the mounting holes and secure wheel assembly to bracket using a long hex. bolt and nylon hex. nut. Do not overtighten.
2. Position the lifting pedal (C) Fig.4 in between the mounted bracket (B) and secure it to the bracket using a large pivot pin, 2 large washers and E-retaining rings (D).

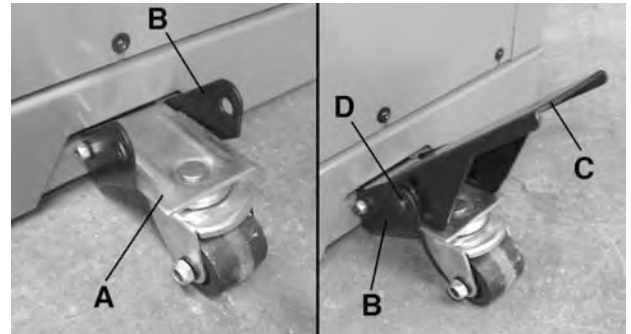


FIGURE 4

INSTALLING THE PLANER ASSEMBLY ONTO THE CABINET STAND

1. The following step will require a total of four people to lift the planer assembly onto the cabinet stand. Place two 2x4 pieces of wood under the head casting of the planer assembly. Make sure the 2x4's protrude 16" past each side of the planer.
2. With one person on the end of each 2x4, carefully lift the planer assembly onto the cabinet stand (with the wheel assembly facing the front of the planer). Secure the planer assembly to the cabinet using four cap screws and spring washers.

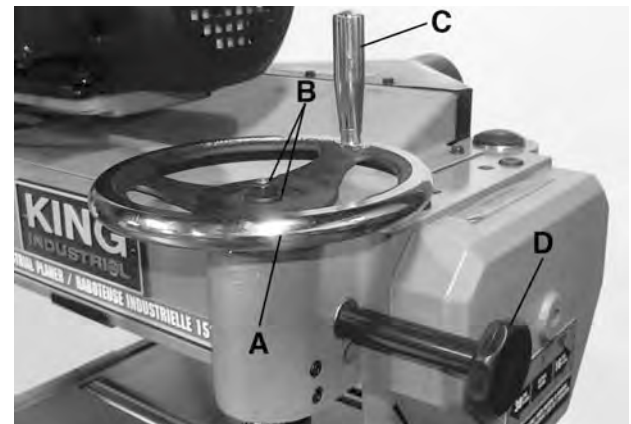


FIGURE 5

ASSEMBLING CUTTERHEAD RAISING AND LOWERING HANDWHEEL

1. Insert key into keyway of raising and lowering shaft (refer to B Fig.5) and slide handwheel (A) Fig.5 onto raising and lowering shaft. Make sure key is engaged with keyway in hub of handwheel.
2. Fasten handwheel (A) Fig.5 to raising and lowering shaft using a large washer and hex. nut (B) supplied.
3. Assemble handle (C) Fig.5, to handwheel (A) as shown.
4. Loosen two head locking knobs, one of which is shown at (D) Fig. 5, and turn handwheel clockwise to raise head assembly.

ASSEMBLING DUST CHUTE TO TOP COVER

Supplied with your 15" planer is a 4" dust chute (A) Fig.6, which gets assembled to the top cover (B) at the rear of the machine, as shown. Only install the dust chute if you plan to connect a dust collection system, this will provide an efficient means of maintaining a clean and safe work area.

1. Secure the top of the dust chute (A) Fig.6 to the top cover (B) using three hex. bolts, six washers and three hex. nuts (C). You will need to reach into the dust chute to get access for fastening the hex. nuts.
2. Secure the bottom of the dust chute using three cap screws and washers.

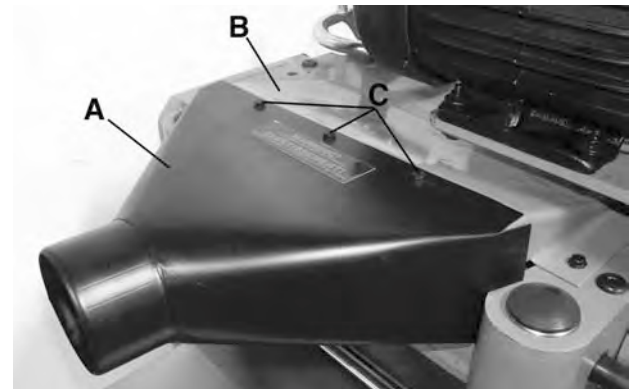


FIGURE 6

ASSEMBLING EXTENSION TABLES

1. Place the first extension table (A) Fig.7 against the front of the machine, just below the table surface.
2. Fix the extension table to the machine using three hex. bolts, washers and spring washers (B).

If the extension table is not level with the top surface of the table, an adjustment must be performed. Adjustment set screws (C) under the extension table are supplied to level it. Place a straight edge on the table and the extension, then screw or unscrew these set screws until the extension table is level with the table top surface.

3. Repeat the above steps for the rear extension table.

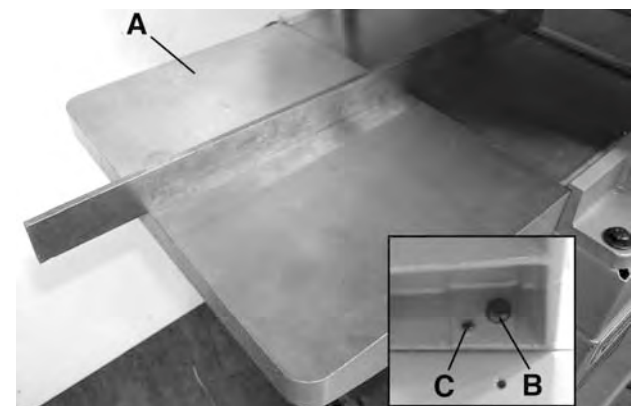


FIGURE 7

ADJUSTMENTS & OPERATION



CLEANUP BEFORE OPERATION

The unpainted surfaces of the planer are coated with a protective grease to prevent corrosion during shipment. This protective coating must be removed using a solvent cleaner or degreaser.

For best performance, make sure you clean all moving parts or sliding contact surfaces that are coated. Also, the cutterhead must also be cleaned to ensure good planing results. Be very carefull cleaning the cutterhead, cutterhead knives are very sharp.

DEPTH OF CUT ADJUSTMENT

The depth of cut on your planer is controlled by raising or lowering head assembly (A) Fig.8, which contains the cutterhead and feed rolls. The head raises and lowers on four precision ground steel columns (B). To adjust the depth of cut, simply loosen the two head assembly lock knobs, one of which is shown at (C), and turn the head raising and lowering handwheel (D). Turning the handwheel (D) clockwise, raises the head assembly, turning it counterclockwise lowers the head assembly. One full turn of the handwheel moves the head approximately $5/32$ ". Retighten the two head assembly lock knobs (C) once the adjustment is done.

The maximum depth of cut when planing stock narrower than 6" wide is $3/16$ " when the stock is run through the planer on one side or the other of the cutterhead. A limiter (A) Fig.9 is provided to limit the depth of cut to $1/8$ " on stock wider than 6".



FIGURE 8



FIGURE 9

POWER FEED CONTROL

Two power feed speeds of 16 and 30 feet per minute are provided with your planer. Generally speaking, the slower feed rate provides more cuts per inch, thus a finer, smoother finish of the workpiece is obtained. A good rule to follow would be to operate the machine at the faster feed rate for general planing and switch to the slower feed rate for the final finished dimension of the workpiece. When planing wide stock (wider than 8") particularly in hard wood, the slower feed speed (16 feet per minute) is more desirable as there is less strain on the motor and a better finish is obtained since there are more cuts per inch of stock in length.

When the shifter knob (A) Fig.10, is pushed all the way in (A) Fig.11, the feed speed will be 30 feet per minute. When the shifter knob is pulled all the way out (C) Fig.11, the feed speed will be 16 feet per minute. When the shifter knob is in the centre (neutral) position (B) Fig.11, the feed rollers are disengaged and the planer will stop feeding.

IMPORTANT: ONLY CHANGE FEED SPEED WHEN THE MACHINE IS RUNNING. DO NOT ATTEMPT TO CHANGE SPEEDS DURING ANY CUTTING OPERATION OR DAMAGE TO THE GEARBOX WILL RESULT.



FIGURE 10

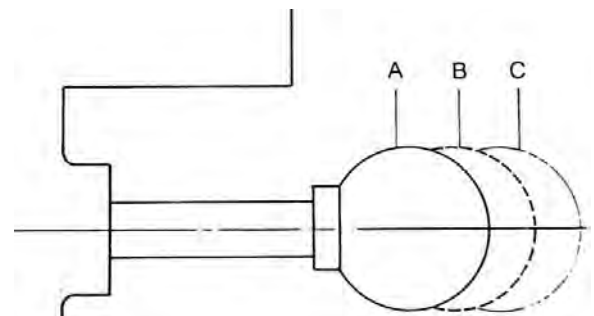


FIGURE 11



ADJUSTMENTS & OPERATION

ANTI-KICKBACK FINGERS

A series of anti-kickback fingers (A) Fig.12 are provided on the infeed end of the planer. These prevent kickback of workpiece during the planing operation. These anti-kickback fingers operate by gravity and no adjustment is required. It is necessary, however, to inspect them occasionally to make sure they are free of gum and pitch and that they move independently and operate correctly.

WARNING: WHEN INSPECTING AND CLEANING THE ANTI-KICKBACK FINGERS, MAKE SURE THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.

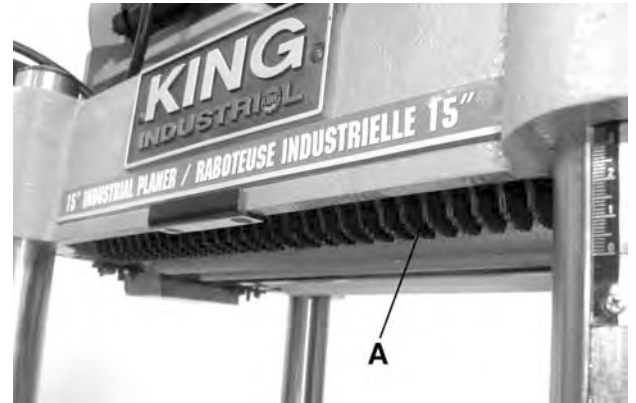


FIGURE 12

ADJUSTING BELT TENSION

Important information: The V-belts must be tensioned after the first 16 hours of operation or your V-belts will slip or burn out. Always replace the V-belts with a matched set of three V-belts or the belt tension may not be even, causing premature belt failure.

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**
2. Remove the four hex. bolts (A) Fig.13 and remove the belt and pulley guard cover (B).
3. Place a 2x4 between the motor mounting plate and the head.
4. Loosen the two hex. bolts (A) Fig.14 and pry up on motor mounting plate until correct belt tension is obtained. Correct tension is obtained when there is approximately 1/4" deflection in the center span of the belts using light finger pressure. Hold the motor in place and retighten the two hex. bolts (A) Fig.14 and reinstall belt and pulley guard cover (B) Fig.13.

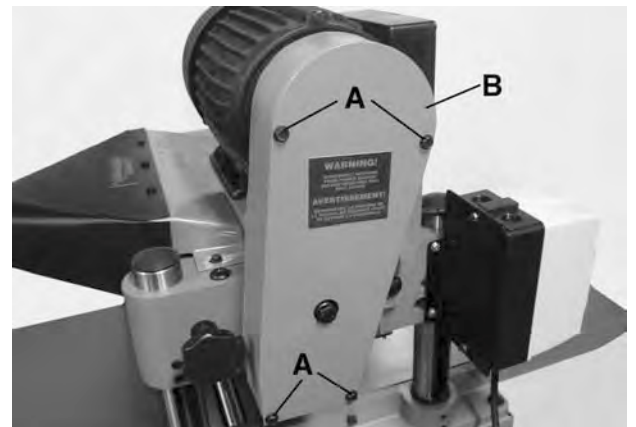


FIGURE 13

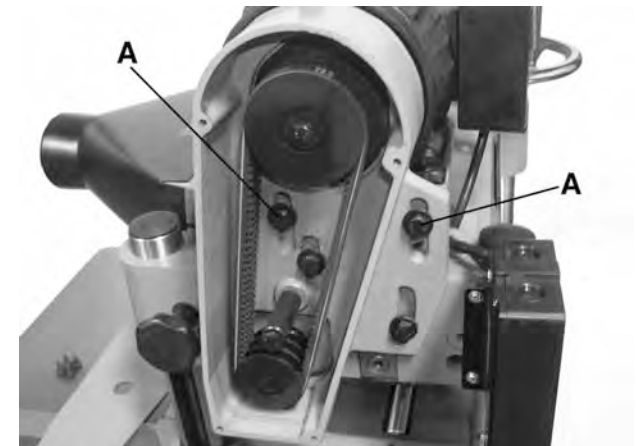


FIGURE 14

ADJUSTMENTS & OPERATION



CHECKING, ADJUSTING AND REPLACING KNIVES

To check, adjust or replace the planer knives, proceed as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**

2. Remove the top cover (A) Fig.15 and the 4" dust chute (B).

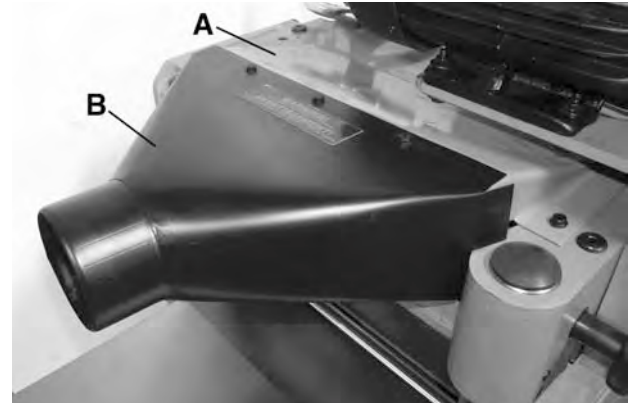


FIGURE 15

3. Loosen the two hex. bolts (A) Fig.16 and pivot motor assembly (B) towards the front of the planer. **NOTE:** Belt tension is not disturbed when pivoting the motor forward. **WARNING: THE CUTTERHEAD AND KNIVES ARE NOW EXPOSED AND CARE SHOULD BE TAKEN AS THE KNIVES ARE VERY SHARP.**

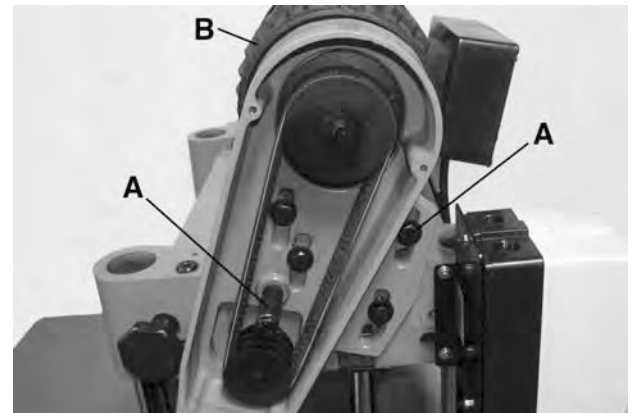


FIGURE 16

4. To check and adjust the knives, proceed as follows:

A. Carefully place the knife setting gauge (A) Fig.17 on the cutterhead as shown.

B. When the knives are adjusted correctly, the knife (B) Fig.17 should just contact the bottom of the gauge (C), at each end of the cutterhead. Check the remaining two knives in the same manner. Refer to illustration in Fig.18 for correct positioning of the knife and knife setting gauge.

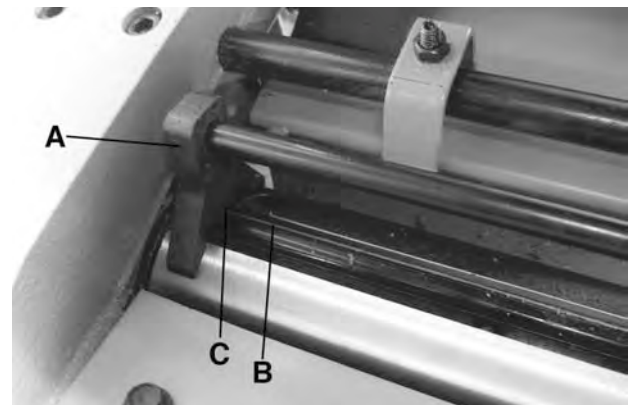


FIGURE 17

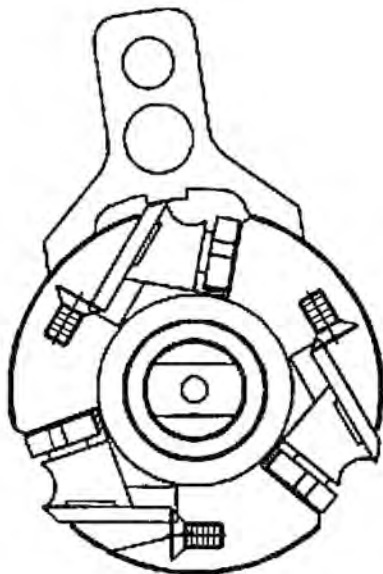


FIGURE 18



ADJUSTMENTS & OPERATION

CHECKING, ADJUSTING AND REPLACING KNIVES continued...

- C. If any of the knives require an adjustment, slightly loosen the knife locking bar (A) Fig.19 in each of the knife slots by turning the five locking screws (B) clockwise into the locking bar just enough to relieve stress in the cutterhead but not disturb the setting of the knives.
- D. Once you have loosened the five locking screws (B) Fig.19, use the hex key supplied to turn the "jack screw" (C) Fig.19, turn clockwise to lower the knife or counterclockwise to raise the knife on each end of the cutterhead until the cutting edge of knife just touches the bottom of gauge, see Fig.18. Then snug up the knife locking bar by lightly backing out the five locking screws, two of which are shown at (B) Fig.19 against the knife slot. **IMPORTANT: AT THIS TIME, ONLY TIGHTEN THE KNIFE INTO THE SLOT ENOUGH TO HOLD IT IN POSITION.**
- E. If additional knives must be reset, repeat **STEP D.**
- F. After all three knives are set, back out and tighten the five locking screws against the slot, starting with the end screws first, then the centre screws until the knife is securely held in the cutterhead. Tighten the remaining two knives in the same manner.
5. If the knives are removed for sharpening, care must be exercised in replacing and resetting them, as follows:
- Remove the three knives, locking bars and locking screws from the cutterhead.
 - Thoroughly clean the knife slots, knife bars and screws. Check the screws. If the threads appear worn or stripped or if the heads are becoming rounded, replace them.
 - Insert knives, knife locking bars and screws into all three slots in the cutterhead. Back out the locking screws just enough to hold all three knives in the cutterhead.
 - Adjust all three knives.
6. **IMPORTANT:** After knives have been adjusted, replace top cover and dust chute that were removed in **STEP 2** and return motor assembly to the upright position. The motor assembly was pivoted forward in **STEP 3.**

CONSTRUCTING GAUGE BLOCK

In order to check and adjust the height of the chipbreaker, infeed and outfeed rollers and adjust the cutterhead parallel to the table, you will need to construct a gauge block made of hard wood. This gauge block can be easily constructed by following the dimensions in Fig.20.

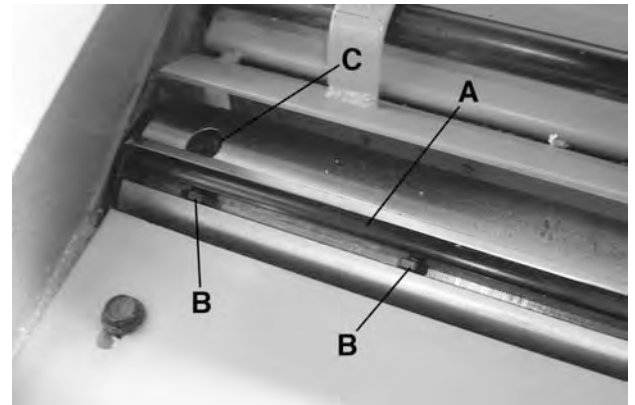


FIGURE 19

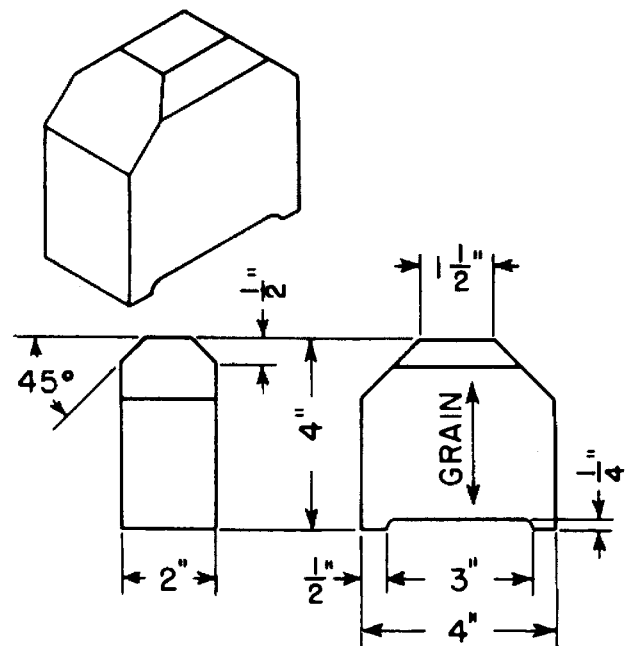


FIGURE 20

ADJUSTMENTS & OPERATION



ADJUSTING HEIGHT OF CHIPBREAKER

The chipbreaker extends down around the front of the cutterhead and raises as stock is fed through the planer. The chipbreaker "breaks or curls" the chips as they leave the cutterhead and the bottom edge of the chipbreaker helps hold the stock flat down on the table during the planing operation. The bottom of the chipbreaker must be parallel to the knives and set 0.020" below the cutting circle. To check and adjust, proceed as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**
2. Make certain the knives are adjusted properly as explained under "CHECKING, ADJUSTING AND REPLACING KNIVES".
3. Place a constructed gauge block (A) Fig.21 on the table directly under the cutterhead as shown. Using 0.020" feeler gauge (B) placed on top of the gauge block, raise or lower the head assembly until one of the knives just touches the feeler gauge when the knife is at its lowest point. Then lock the head assembly in this position.
4. Place the gauge block (A) Fig.22 minus the feeler gauge, under one end of the chipbreaker (C) as shown. The bottom of the chipbreaker (C) should just touch the top of the gauge block, as shown.
5. If the height of the chipbreaker must be adjusted, remove the top cover and dust chute. Loosen hex. nut (A) Fig.23 and turn set screw (B) until that end of the chipbreaker is touching the top of the gauge block. Then retighten hex. nut (A).
6. Place the gauge block on the other end of the chipbreaker and if an adjustment is necessary adjust the hex. nut and set screw on the other end of the chipbreaker.

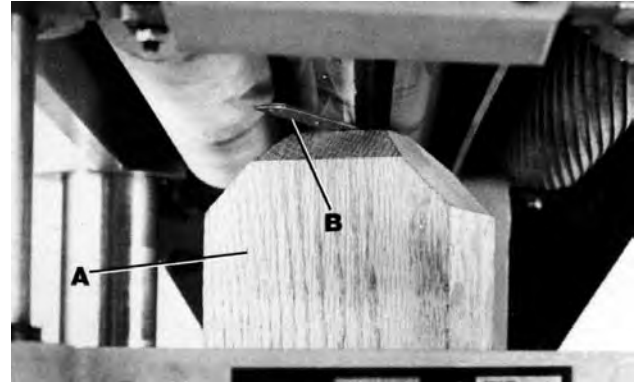


FIGURE 21

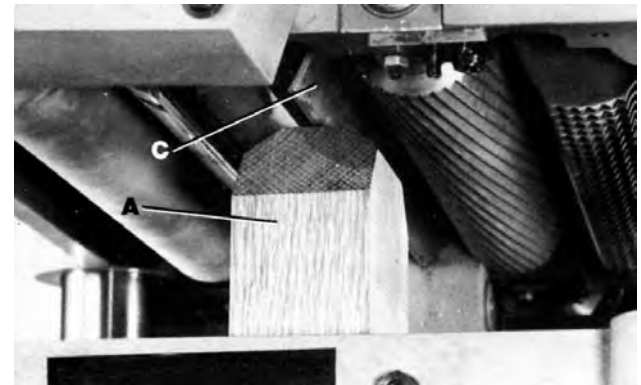


FIGURE 22

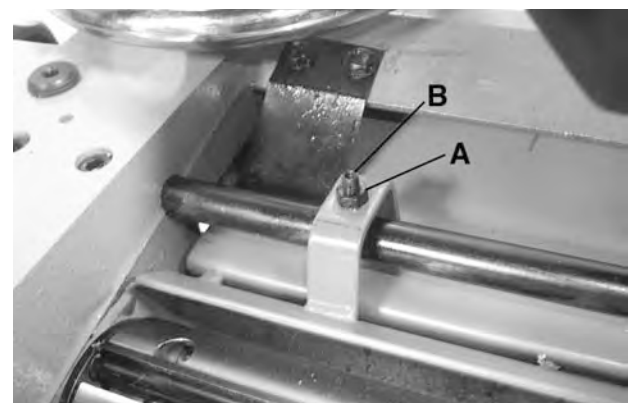


FIGURE 23



ADJUSTMENTS & OPERATION

ADJUSTING HEIGHT OF INFEED ROLLER

The infeed roller is adjusted at the factory at **0.040” below the cutting circle**. To check and adjust the height of infeed roller, proceed as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**
2. Make sure the knives are adjusted properly as explained under **“CHECKING, ADJUSTING AND REPLACING KNIVES”**.
3. Place a constructed gauge block (A) Fig.24 on the table directly underneath the cutterhead as shown. Using a 0.040” feeler gauge (B) placed on top of the gauge block, raise or lower the head assembly until one of the knives just touches the feeler gauge when the knife is at its lowest point. Then tighten the head locking knobs.
4. Move the gauge block (A) Fig.25 minus the feeler gauge, under one end of the infeed roller (C). The bottom of the infeed roller should just touch the top of the gauge block (A), as shown.
5. If the height of the infeed roller must be adjusted, loosen hex. nut (D) Fig.25 and turn adjusting screw (E) until that end of the infeed roller just touches the top of the gauge block. Then tighten hex. nut (D).
6. Repeat this adjustment with the gauge block on the opposite end of the infeed roller.

ADJUSTING HEIGHT OF OUTFEED ROLLER

The outfeed roller is adjusted at the factory at **0.040” below the cutting circle**. To check and adjust the height of outfeed roller, proceed as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**
2. Make sure the knives are adjusted properly as explained under **“CHECKING, ADJUSTING AND REPLACING KNIVES”**.
3. Place the gauge block (A) Fig.24, on the table directly underneath the cutterhead as shown. Using a 0.040” feeler gauge (B) placed on top of the gauge block as shown, raise or lower the head assembly until one of the knives just touches the feeler gauge when the knife is at its lowest point. Then tighten the head locking knobs.
4. Move the gauge block (A) Fig.26 minus the feeler gauge, under one end of the outfeed roller (C). The bottom of the outfeed roller should just touch the top of the gauge block (A).
5. If the height of the outfeed roll must be adjusted, loosen hex. nut (D) Fig.26 and turn adjusting screw (E) until the outfeed roller is properly adjusted.
6. Repeat this adjustment with the gauge block on the opposite end of the outfeed roller.

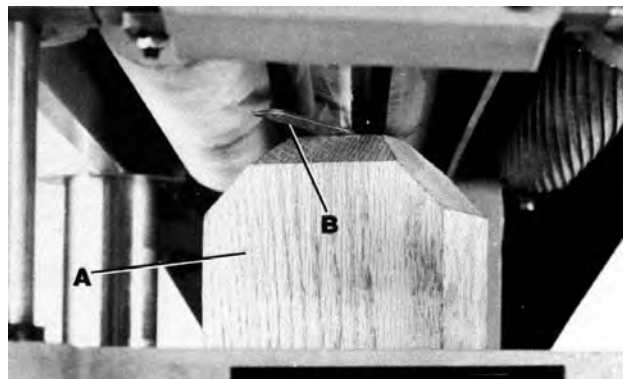


FIGURE 24

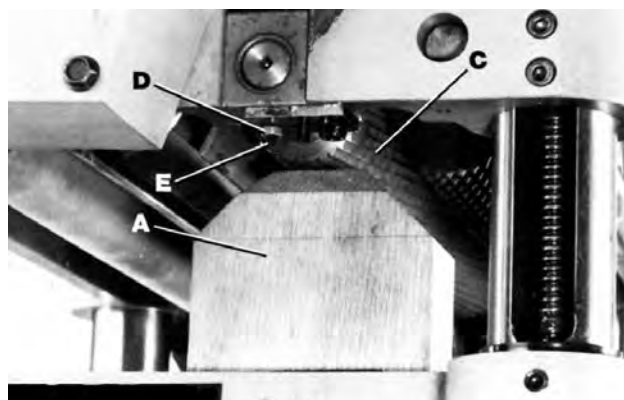


FIGURE 25

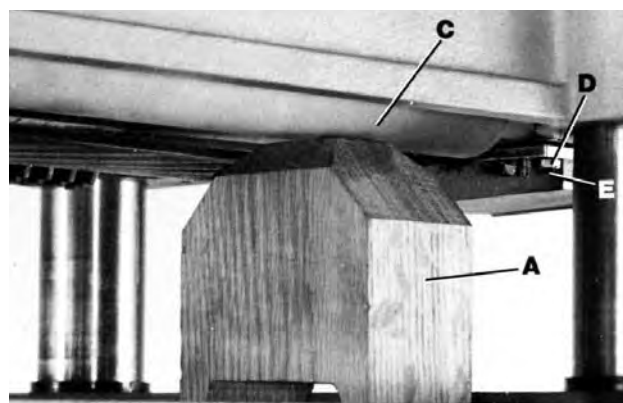


FIGURE 26

ADJUSTMENTS & OPERATION



ADJUSTING SPRING TENSION OF INFEED AND OUTFEED ROLLERS

The infeed and outfeed rollers are those parts of your planer that feed the stock while it is being planed. The feed rollers are under spring tension and this tension must be sufficient to feed the stock uniformly through the planer without slipping but should not be too tight that it causes damage to the board. The tension should also be equal at both ends of each roller.

To adjust the spring tension of the infeed roller, turn two screws, one of which is shown at (A) Fig.27. The other screw is located on the opposite side of the machine. A good starting point to use in setting the spring tension of the infeed roller is to adjust the two screws (A) until there are **FOUR** threads showing above the table casting. To increase or decrease the spring tension further, adjust screws (A).

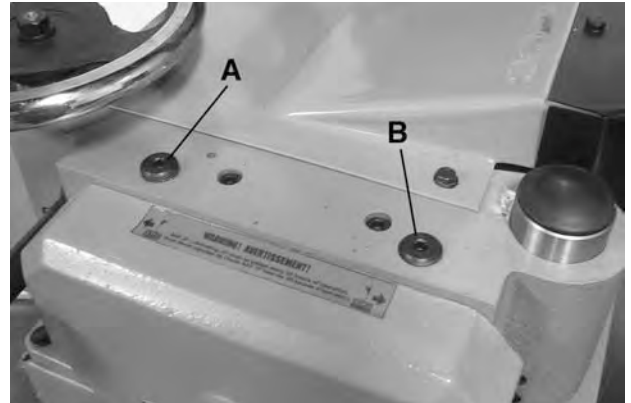


FIGURE 27

To adjust the spring tension of the outfeed roller, turn two screws, one of which is shown at (B) Fig.27. The other screw is located on the other side of the machine. A good starting point to use in setting tension of the outfeed roller is to adjust the two screws (B) until there is **ONE** thread showing above the table casting. To increase or decrease the spring tension further, adjust screws (B).

ADJUSTING TABLE ROLLERS

Your planer is supplied with two table rollers (A) Fig.28 which aid in feeding stock by reducing friction and turn as the stock is fed through the planer. It is not possible to give exact dimensions on the proper height setting of the table because each type of wood behaves differently. As a general rule, however, when planing rough stock the table rollers should be set **HIGH** (0.002" to 0.020") above the table surface and when planing finish stock the table rollers should be set **LOW**, 0.001" above the table surface or level with the table surface.

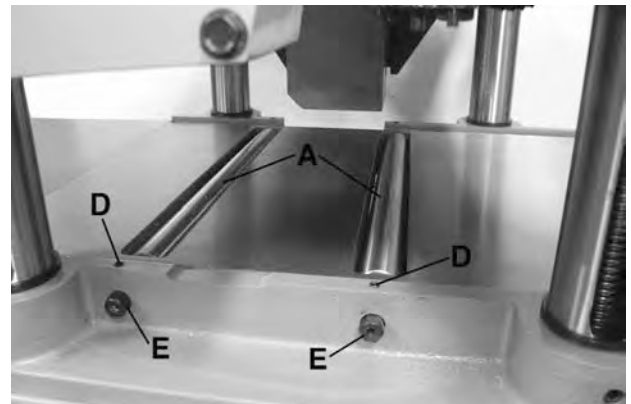


FIGURE 28

The table rollers on your planer are set for average planing and are parallel to the table surface. If you desire to adjust the table rollers higher or lower, proceed as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**
2. Lay a straight edge (B) Fig.29 across both rollers and with a feeler gauge (C) underneath the straight edge as shown, adjust height of table rollers by loosening set screws (D) Fig.28 and turn eccentric screws (E) Fig.28 to raise or lower table rollers. Table rollers must be adjusted on the opposite end of table in the same manner. The table rollers must always be set parallel to the table.

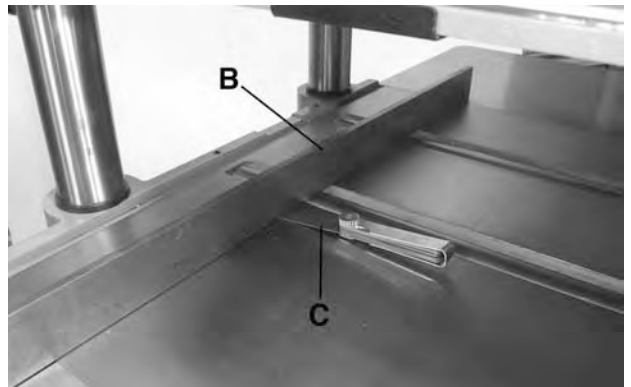


FIGURE 29

IMPORTANT: The eccentric screws (E) Fig.28 on both sides of the planer are on eccentrics and care should be taken when adjusting to keep the rollers on leading the stock to one side or the other. This can be accomplished by turning eccentric screws (E) Fig.28 clockwise to raise or lower the rollers and turning the two eccentric screws on the opposite end of the rollers counterclockwise or vice versa.



ADJUSTMENTS & OPERATION

ADJUSTING CUTTERHEAD PARALLEL TO TABLE

The cutterhead is set parallel to the table at the factory and no further adjustment should be necessary. If your machine is planing a taper, first check to see if the knives are set properly in the cutterhead. Then check to see if the cutterhead is set parallel to the table as follows:

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**
2. Place a constructed gauge block (A) Fig.30 on table directly under front edge of head casting (B) as shown. Lower head casting until front edge of head casting (B) just touches the top of the gauge block.
3. Move gauge block (A) Fig.31 to opposite end of table, as shown. The distance from table to edge of head casting should be the same.
4. Repeat **STEPS 2** and **3** on outfeed end of table.

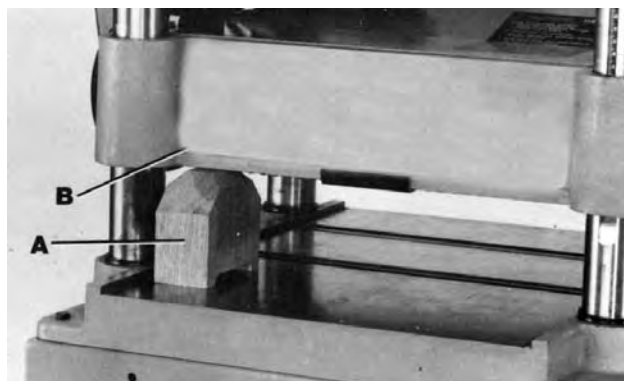


FIGURE 30

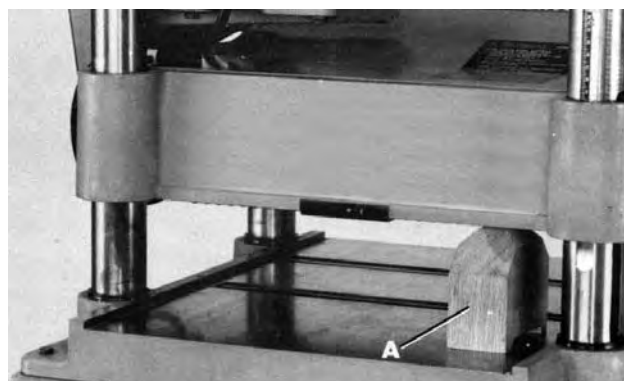


FIGURE 31

5. If the head casting is not parallel to table, unassemble the planer from its enclosed stand and then tilt planer on its side as shown in Fig.32. Remove hex. bolt (C) and loosen hex. bolt (D) Fig.32 which will allow you to move the idler sprocket assembly (E) far enough to release tension on chain as shown in Fig.33. Remove chain from sprocket on end of head casting that must be adjusted. In this case the chain has been removed from sprocket (F).

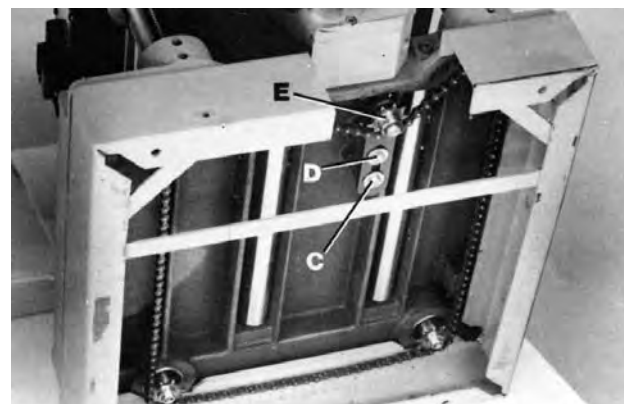


FIGURE 32

6. Turn sprocket (F) Fig.33 by hand to bring that corner into adjustment with the other three corners. **IMPORTANT: THIS ADJUSTMENT IS VERY SENSITIVE AND IT SHOULD NOT BE NECESSARY TO TURN THE SPROCKET MORE THAN ONE OR TWO TEETH.** Turning sprocket (F) clockwise will decrease the distance between the table and head casting. Counterclockwise will increase the distance.

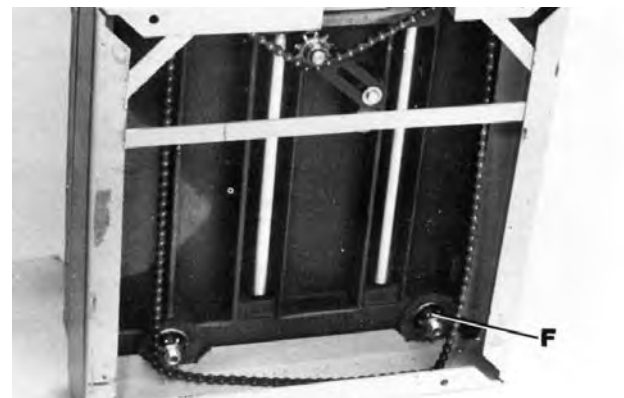


FIGURE 33

7. Replace chain being careful not to disturb the position of the sprockets and replace idler sprocket assembly (E) Fig.32.

LUBRICATION & MAINTENANCE



LUBRICATION

The gear box oil should be changed after the first 20 hours of operation as part of the normal break-in procedure, and then once a year using automotive grade gear oil (80W-90W). The gear box drain plug (A) Fig.34 is located at the bottom of the gear box. The oil fill and level plug (B) Fig.35 is located on the side of the gear box.

The proper oil level is reached when it reaches the bottom of the oil fill and level plug hole.

The four raising lead screws (C) Fig.36 should be lubricated as required using a common grease.

Periodically remove cap screw (A) Fig.36 and side cover (B). Thoroughly clean chains and sprockets (A) Fig.37 and lubricate using a light machine oil. Replace side cover.

Cleaning maintenance

Regularly clean the planer parts to keep them in optimal condition, vacuum excess wood chips and sawdust. Excessive dust and wood chips in the motor could cause excessive heat. Every effort should be made to prevent foreign material from entering the motor. A visual inspection should be made at frequent intervals. Accumulations of dry dust can usually be blown out to prevent the interference with normal motor ventilation. To remove dust, blow off motor with a low pressure air hose.

The operator performing this cleaning function should wear safety glasses and a filter mask. If any servicing (other than the above cleaning) becomes necessary, it should be performed by an authorized service centre.

Daily maintenance:

- Clean unpainted surfaces of the table and relubricate.

Weekly maintenance:

- Clean cutterhead.
- Lubricate the lead screws (C) Fig.36 of the four columns.

Monthly maintenance:

- Inspect V-belts for tension.
- Clean dust build-up on motor.
- Lubricate lead screws.
- Lubricate chain.

Yearly maintenance:

- Change gear box oil (80W-90W automotive grade gear oil).



FIGURE 34

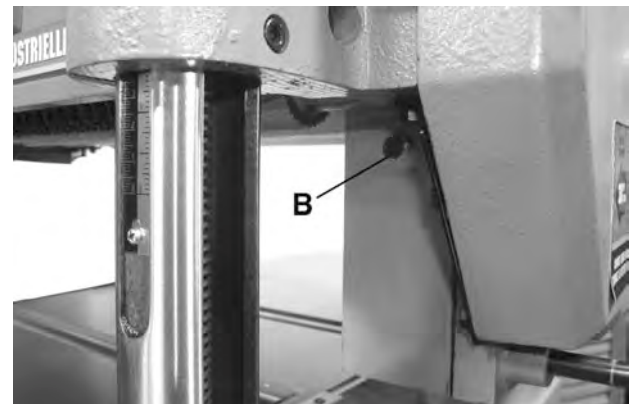


FIGURE 35



FIGURE 36

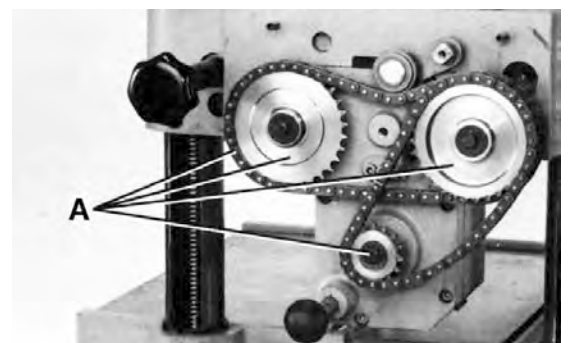


FIGURE 37



TROUBLESHOOTING

Problem	Probable cause	Probable solution
Motor will not start.	<ol style="list-style-type: none"> 1. Open circuit in motor. 2. Starting capacitor is at fault. 	<ol style="list-style-type: none"> 1. Inspect all motor leads for loose or open connections. 2. Test/replace starting capacitor.
Motor does not develop full power.	<ol style="list-style-type: none"> 1. Undersized cord or too long. 2. Running capacitor is at fault. 	<ol style="list-style-type: none"> 1. Increase cord size and/or reduce cord length. 2. Test/replace running capacitor.
Motor overheats.	<ol style="list-style-type: none"> 1. Motor overloaded during operation. 2. Restricted motor air circulation. 	<ol style="list-style-type: none"> 1. Reduce cutting load, take lighter cuts. 2. Clean out motor to provide normal air circulation.
Cutterhead slows down or squeals when cutting, especially on start-up.	<ol style="list-style-type: none"> 1. V-belt(s) loose. 2. V-belts worn out. 	<ol style="list-style-type: none"> 1. Tighten V-belts. 2. Replace V-belts.
Vibration when running or cutting.	<ol style="list-style-type: none"> 1. Loose or damaged knife. 2. Damaged V-belt(s). 3. Worn cutterhead bearings. 	<ol style="list-style-type: none"> 1. Tighten or replace knife. 2. Replace V-belts. 3. Check/replace cutterhead bearings.
Excessive snipe. (A small amount of snipe is normal, but must be minimized as much as possible).	<ol style="list-style-type: none"> 1. One/both table rollers are too high. 2. Outfeed extension table slopes down. 3. Chipbreaker set too low. 4. Workpiece not supported as it leaves the planer. 	<ol style="list-style-type: none"> 1. Lower table rollers. 2. Level the outfeed extension table. 3. Raise the height of the chipbreaker. 4. Hold the workpiece up slightly as it leaves the outfeed end of the planer.
Workpiece slows down or stops in the middle of the cut.	<ol style="list-style-type: none"> 1. Too heavy of a cut. 2. One/both table rollers are too high or too low. 3. Chipbreaker set too low. 4. Feed rollers are too high or too low. 5. Head not parallel with table. 6. Pitch or glue build-up on components. 	<ol style="list-style-type: none"> 1. Make a lighter cut. 2. Lower/raise table rollers. 3. Raise the height of the chipbreaker. 4. Lower/raise feed rollers. 5. Adjust head parallel with table. 6. Clean the internal cutterhead components with pitch/resin dissolving solvent.
Fuzzy grain.	<ol style="list-style-type: none"> 1. High wood moisture or wet surface. 2. Dull knives. 	<ol style="list-style-type: none"> 1. Check moisture content, allow to dry if too high. 2. Replace or sharpen knives.
Uneven knife marks or wavy surface across the face of the workpiece.	<ol style="list-style-type: none"> 1. Feeding workpiece too fast. 2. Chipbreaker set unevenly. 3. Knives installed unevenly. 4. Worn cutterhead bearings. 	<ol style="list-style-type: none"> 1. Slow down the feed rate. 2. Adjust height of the chipbreaker. 3. Adjust the knives using the knife gauge. 4. Replace cutterhead bearings.