KING INDUSTRIAL

380MM INDUSTRIAL PLANER

CE

MODEL: KC-385FX-CE

INSTRUCTION MANUAL

WARRANTY INFORMATION

2-YEAR LIMITED WARRANTY FOR THIS MACHINE

PROOF OF PURCHASE

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

REPLACEMENT PARTS

Replacement parts for this product are available, please use the 10 digit part numbers listed in this manual for all part orders where applicable.

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 centre, 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.

NOTE TO USER

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

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

www.kingcanada.com

PARTS LIST
MODEL: KC-385FX-CE

No.	Part Order #	Description	Qty
427	4503854270	Washer	4
428	4503854280	Hex. bolt	1
429	4503854290	Hex. nut	1
430	4503854300	Pedal	1
431	4503854310	Pedal shaft	1
432	4503854320	Washer	2
433	4503854330	Retaining ring/shaft	2
434	4503854340	Sleeve	2
435	4503854350	Hex. bolt	2
436	4503854360	Washer	4
437	4503854370	Hex. nut	2
438	4503854380	Rear wheel	2
441	4503854410	Strain relief	1
442	4503854420	Rubber foot	2
443	4503854430	Running capacitor	1
444	4503854440	Starting capacitor	1
445	4503854450	Power cord	1
446	4503854460	Motor cord	1
447	4503854470	Key	1
501	4503855010	Gear box	1
502	4503855020	Cap screw	4
503	4503855030	Flange cover	1
504	4503855040	Cap screw	3
505	4503855050	Oil seal	1
506	4503855060	Helical gear	1
507	4503855070	Cap screw	1
508	4503855080	Pan hd. screw	1
509	4503855090	Washer	1
510	4503855100	Gear	1

No.	Part Order #	Description	Qty
511	4503855110	Gear shaft	1
512	4503855120	Key	1
513	4503855130	Ball bearing	2
514	4503855140	Gear	1
515	4503855150	Gear shaft	1
516	4503855160	Key	1
517	4503855170	Ball bearing	2
518	4503855180	Double gear assembly	1
519	4503855190	Shaft	1
520	4503855200	Key	1
521	4503855210	Spring	1
522	4503855220	Steel ball	1
523	4503855230	Ball bearing	1
524	4503855240	Ball bearing	1
525	4503855250	Oil seal	1
526	4503855260	Chain sprocket	1
527	4503855270	Key	1
528	4503855280	Washer	1
529	4503855290	Cap screw	1
530	4503855300	Clutch fork	1
531	4503855310	Clutch shaft	1
532	4503855320	O-ring	1
533	4503855330	Feed speed knob	1
534	4503855340	Spring pin	2
535	4503855350	Gasket	1
536	4503855360	Gear box cover	1
537	4503855370	Cap screw	5
538	4503855380	Oil plug	2
539	4503855390	Retaining ring/shaft	1
540	4503855400	Ball bearing	1

PARTS LIST
MODEL: KC-385FX-CE

No.	Part Order #	Description	Qty
97	4503850970	Wheel bracket	1
98	4503850980	Threaded shaft	1
99	4503850990	Hanger	1
100	4503851000	Cap screw	2
101	4503851010	Spring	1
102	4503851020	Spacer	1
105	4503851050	Switch plate	1
106	4503851060	Magnetic switch	1
107	4503851070	Cap screw	2
108	4503851080	Washer	2
109	4503851090	Chain	1
110	4503851100	Chain	1
112	4503851120	Tooth V-belt	3
113	4503851130	Jackscrew	9
114	4503851140	Washer	6
115	4503851150	Washer	1
116	4503851160	Flange hex. bolt	4
117	4503851170	Washer	2
201	4503852010	Working table	1
202	4503852020	Table roller	2
203	4503852030	Ball bearing	4
204	4503852040	Eccentric lock shaft	4
205	4503852050	Set screw	4
206	4503852060	Threaded bushing	2
207	4503852070	Locksmith bushing	2
208	4503852080	Lock shaft	2
209	4503852090	Lock knob	2
210	4503852100	Extension table	2
212	4503852120	Washer	6
213	4503852130	Hex. bolt	6
214	4503852140	Set screw	4
215	4503852150	Hex. bolt	1
216	4503852160	Hex. nut	1
301	4503853010	Base	1
302	4503853020	Hex. bolt	4
303	4503853030	Hex. nut	4
304	4503853040	Washer	8
305	4503853050	Column	3
306	4503853060	Ball bearing	4
307	4503853070	Retaining ring/bore	4
308	4503853080	Handwheel column	1
309	4503853090	Bushing	1
310	4503853100	Retaining ring/bore	1
311	4503853110	Set screw	8
312	4503853120	Lead screw	3

No.	Part Order #	Description	Qty
313	4503853130	Handwheel lead screw	1
314	4503853140	Elevation nut	4
315	4503853150	Cap screw	8
316	4503853160	Worm gear	1
317	4503853170	Key	1
318	4503853180	Retaining ring/shaft	1
319	4503853190	Chain sprocket	4
320	4503853200	Key	4
321	4503853210	Washer	4
322	4503853220	Hex. nut	4
323	4503853230	Sprocket shaft	1
324	4503853240	Sprocket bracket	1
325	4503853250	Chain sprocket	1
326	4503853260	Retaining ring/shaft	1
327	4503853270	Washer	2
328	4503853280	Hex. bolt	2
329	4503853290	Lifting bar	4
330	4503853300	Retaining ring/shaft	4
331	4503853310	Chain	1
401	4503854010	Enclosed cabinet stand	1
402	4503854020	Cabinet panel	1
403	4503854030	Round hd. hex. screw	8
404	4503854040	Motor mount plate	1
405	4503854050	Set screw	2
406	4503854060	Motor plate pivot rod	2
407	4503854070	Set screw	1
408	4503854080	Collar	1
409	4503854090	Set screw	1
410	4503854100	Adjust bolt	2
411	4503854110	Hex. nut	4
412	4503854120	Washer	4
413	4503854130	Motor	1
414	4503854140	Washer	8
415	4503854150	Hex. nut	4
416	4503854160	Hex. bolt	4
417	4503854170	Trolley bracket	1
418	4503854180	Special bolt	1
419	4503854190	Washer	1
420	4503854200	Hex. nut	1
421	4503854210	Sleeve	1
422	4503854220	Trolley wheel	1
423	4503854230	Ball bearing	2
424	4503854240	Retaining ring/bore	2
425	4503854250	Pedal bracket	1
426	4503854260	Hex. bolt	2

GENERAL & SPECIFIC SAFETY INSTRUCTIONS

VOLTAGE WARNING: Before connecting the tool to a power source (receptacle, outlet, etc.) be sure the voltage supplied is the same as that specified on the nameplate of the tool. A power source with voltage greater than that for the specified tool can result in SERIOUS INJURY to the user - as well as damage to the tool. If in doubt DO NOT PLUG IN THE TOOL. Using a power source with voltage less than the nameplate is harmful to the motor.

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.
Refer to the Electrical Information page for specific information on wiring, grounding and connecting to power source.

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. Everyday eye glasses 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.

ADDITIONAL SAFETY INSTRUCTIONS FOR 380MM PLANER

1. If you are not thoroughly familiar with the operation of planers, obtain advice from your supervisor, instructor or other qualified person.

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 switch is in OFF position before plugging in power cord.

7. Before moving table upward or downward, loosen table locking knobs. The locking knobs are 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.

TECHNICAL INFORMATION & GETTING TO KNOW YOUR PLANER

TECHNICAL INFORMATION

Motor .....3HP, 230V, 1 Phase, 50Hz

Cutting Capacities:

Minimum Length of unbutted stock .....171mm (6.74”)
Maximum width of stock .....380mm (15”)
Maximum Thickness of stock .....203mm (8”)
Planing depth (width under 8.3”) .....Max-6mm (0.23”)
Planing depth (width from 8.3”-20”) .....Max-3mm (0.12”)
Feed Rates.....4.8m/min, 9.1m/min (16/30 ft/min)

Jackscrew Cutterhead:

Number of knives 3
Diameter .....76mm (3”)
Speed.....5,000 RPM
Cuts per minute.....15,000

Feed Rollers:

Spiral Infeed Diameter.....51mm (2”)
Table rollers.....Adjustable
Table.....508 x 380mm (20” x 15”)

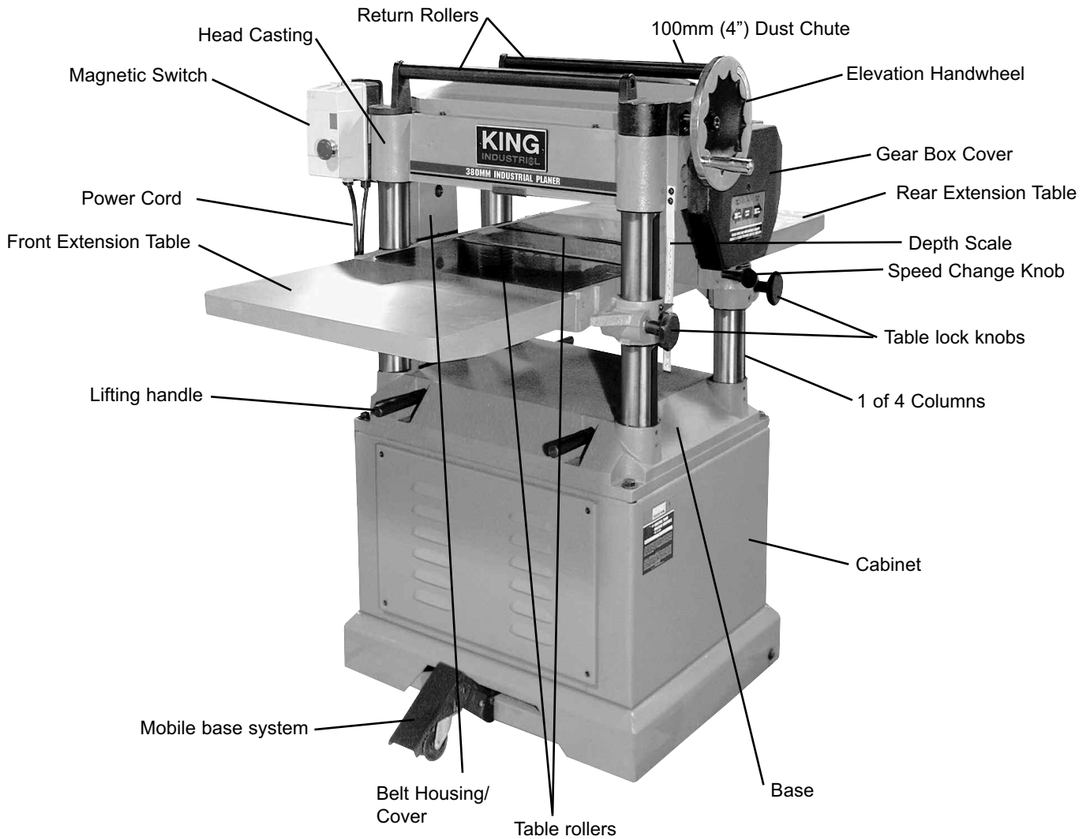


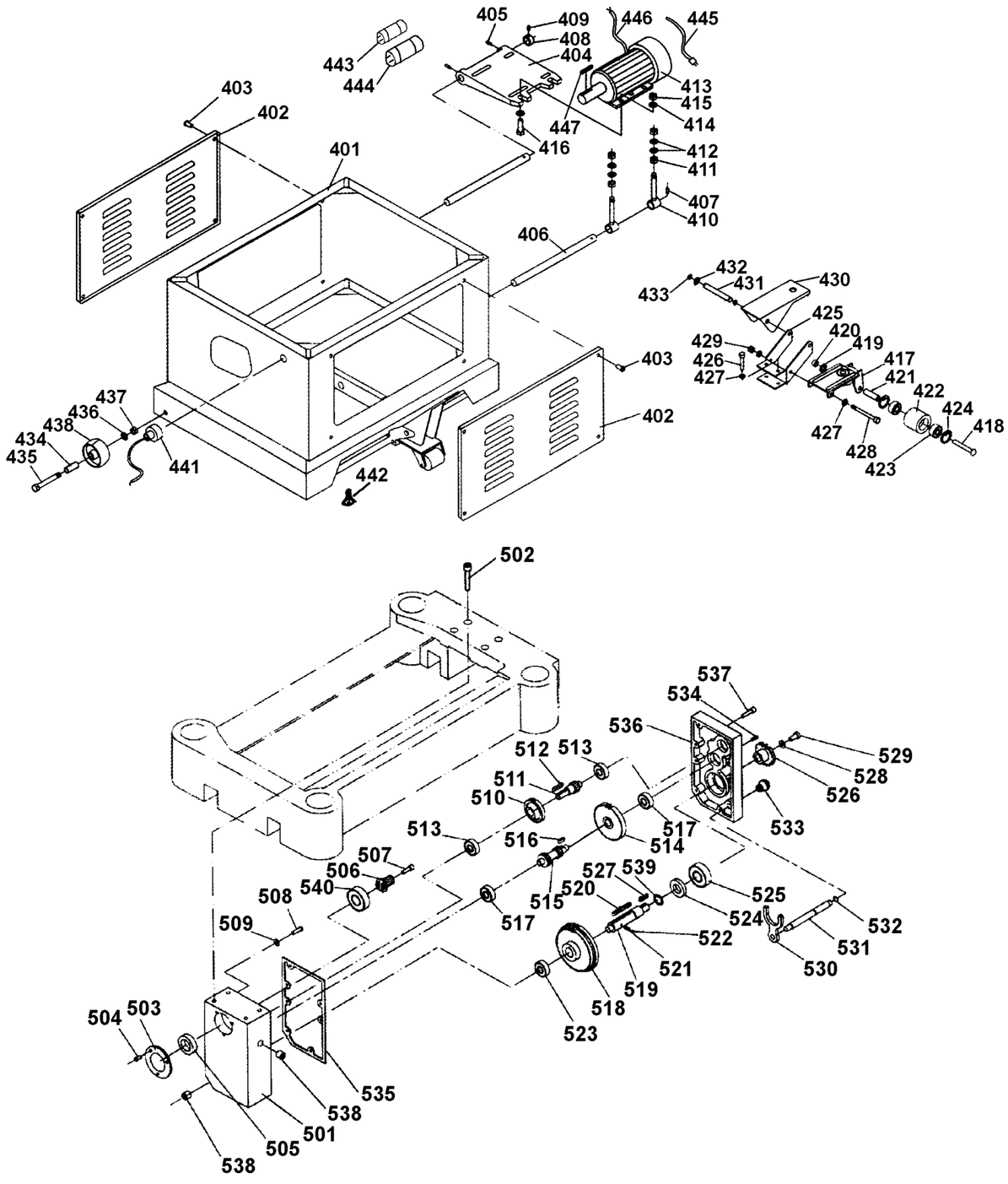
FIGURE 1

PARTS LIST
MODEL: KC-385FX-CE

No.	Part Order #	Description	Qty
1	4503850010	Head casting	1
2	4503850020	Cutterhead	1
3	4503850030	Ball bearing	1
4	4503850040	Ball bearing	1
7	4503850070	Knife locking bar	3
8	4503850080	Knife locking bolt	15
9	4503850090	380mm planer knife (set 3)	1
10	4503850100	Knife gauge	2
11	4503850110	Knife gauge rod	1
12	4503850120	Retaining ring/shaft	2
13	4503850130	Cutterhead pulley	1
14	4503850140	Special large washer	2
15	4503850150	Hex. bolt	2
16	4503850160	Motor pulley	1
17	4503850170	Key	2
18	4503850180	Infeed roller	1
19	4503850190	Key	2
20	4503850200	Roller bushing	4
21	4503850210	Spring	4
22	4503850220	Headless adjust screw	4
23	4503850230	Plate	4
24	4503850240	Set screw	4
25	4503850250	Hex. nut	4
26	4503850260	Spring pin	4
27	4503850270	Hex. bolt	4
28	4503850280	Spring pin	4
29	4503850290	Chain sprocket	1
30	4503850300	Washer	2
31	4503850310	Hex. bolt	2
32	4503850320	Outfeed roller	1
33	4503850330	Chain sprocket	1
34	4503850340	Locking shaft	1
35	4503850350	Retaining ring/shaft	1
36	4503850360	Spring washer	1
37	4503850370	Hex. nut	1
38	4503850380	Chipbreaker	1
39	4503850390	Set screw	2
40	4503850400	Hex. nut	2
41	4503850410	Spring plate	3
42	4503850420	Flange hex. bolt	2
43	4503850430	Pivot rod	1
44	4503850440	Set screw	1
45	4503850450	Chip deflector plate	1
46	4503850460	Flange hex. bolt	3
47	4503850470	Anti-kickback finger	29

No.	Part Order #	Description	Qty
48	4503850480	Spacer	30
49	4503850490	Finger shaft	1
50	4503850500	Retaining ring/shaft	2
51	4503850510	Set screw	1
52	4503850520	Cut limit plate	1
53	4503850530	Countersunk screw	2
54	4503850540	Head cover	1
55	4503850550	Flange hex. bolt	4
56	4503850560	Foam	1
57	4503850570	Dust hood	1
58	4503850580	Cap screw	3
59	4503850590	Hex. bolt	3
60	4503850600	Hex. nut	3
61	4503850610	Washer	6
62	4503850620	Roller bracket	3
63	4503850630	Cap screw	9
64	4503850640	Roller	2
65	4503850650	Worm gear housing	1
66	4503850660	Cap screw	3
67	4503850670	Retaining ring/shaft	1
68	4503850680	Ball bearing	1
69	4503850690	Worm gear shaft	1
70	4503850700	Key	1
71	4503850710	Washer	1
72	4503850720	Hex. nut	1
73	4503850730	Handwheel	1
74	4503850740	Handle	1
75	4503850750	Depth scale	1
76	4503850760	Pan hd. screw	2
77	4503850770	Washer	4
78	4503850780	Pan hd. screw	2
79	4503850790	Pointer	1
80	4503850800	Gear box cover	1
81	4503850810	Spring pin	2
82	4503850820	Cap screw	1
83	4503850830	Safety hatch	2
84	4503850840	Flange hex. bolt	4
85	4503850850	Inner belt guard	1
86	4503850860	Threaded stud	2
87	4503850870	Countersunk hex. screw	2
88	4503850880	Outer belt guard	1
92	4503850920	Lock knob	2
93	4503850930	Spacer	1
95	4503850950	Tension wheel shaft	1
96	4503850960	Tension wheel	1

CABINET & GEAR BOX PARTS DIAGRAM
MODEL: KC-385FX-CE



ELECTRICAL INFORMATION

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!

POWER SUPPLY

WARNING: YOUR PLANER MUST BE CONNECTED TO A 230V, 20 AMP. BRANCH CIRCUIT OR CIRCUIT BREAKER. FAILURE TO CONNECT IN THIS WAY CAN RESULT IN INJURY FROM SHOCK OR FIRE.

GROUNDING

This planer must be grounded. 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 must be 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.

Not all outlets are properly grounded. If you are not sure if your outlet is properly grounded, have it checked by a qualified electrician.

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.

230V SINGLE PHASE OPERATION

A 230V plug is not supplied with the planer and must be purchased at your local hardware store. The 230V plug must be suitable for 230V operation. Contact a qualified electrician to install the plug. The planer must comply with all local and national codes after the 230V plug is installed.

EXTENSION CORDS

The use of any extension cord will cause some loss of power. Use the chart in Fig.2 to determine the minimum wire size (mm squared) 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 motor. Refer to Fig.2 for wire length and size.

A qualified electrician MUST size cords over 50 feet long to prevent motor damage.

Tool's Amperage Rating	Cord Length in Meters			
	7.62	15.24	30.48	45.72
	Cord Length in Feet			
	25	50	100	150
	Cord Size in mm²			
3-6	0.8230	1.3087	1.3087	2.0809
6-8	0.8230	1.3087	2.0809	3.3088
8-10	0.8230	1.3087	2.0809	3.3088
10-12	0.8230	1.3087	2.0809	3.3088
12-16	2.0809	3.3088	-	-

FIGURE 2

UNPACKING & MOVING YOUR PLANER

UNPACKING AND CLEANUP

To ensure maximum performance from your planer, clean it properly and install it accurately before use.

As soon as you receive the planer, we recommend you follow these procedures :

1. Inspect packing crate for damage in transit. Record damage and report it immediately to shipping company or retailer.

2. Open crate and check that machine arrived in good condition. If not, let your industrial retailer know immediately.

3. Before lifting machine, remove all bolts locking it to its shipping base.

4. Transport machine to location with a hand truck, sling or dolly.

5. Remove the protective coating from the table, bed rolls, feed rolls, cutterhead and loose items packed with the machine, including lifting handles and motor pulley.

6. This coating may be removed with a soft cloth moistened with Kerosene.

NOTE : Do not use acetone, gasoline, or lacquer thinner for this purpose.

7. Do not use solvents on plastic parts; solvents dissolve and dammage plastic.

8. Care must be taken when cleaning the cutterhead as the knives are installed in the cutterhead and they are very sharp.

MOVING PLANER

Lifting Handles

There are four lifting handles to facilitate the transportation of your planer. All lifting handles are the pull out type. Pull the handles out for use, push them back in when not in use. Two of the lifting handles (A) are as shown in Fig.3 & Fig.4.

Lifting Planer

If any type of sling is used to lift machine, be sure to only attach the sling to the lifting handles. Be sure that machine is kept in level position while lifting, as shown in Fig.4.

This step must be done before the installation of solid extension tables.

FIGURE 3

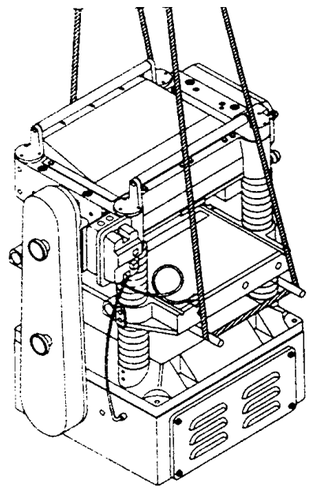
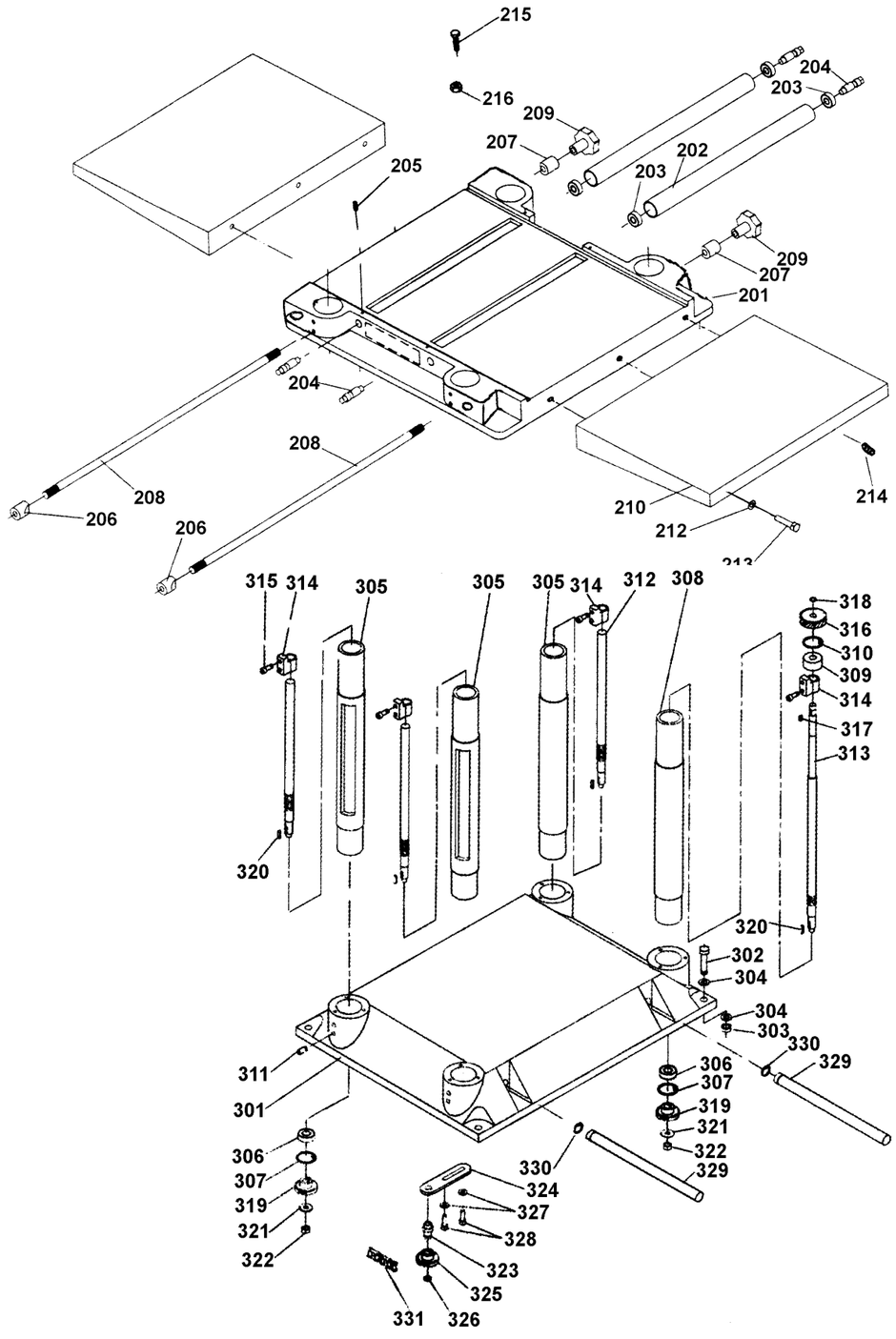
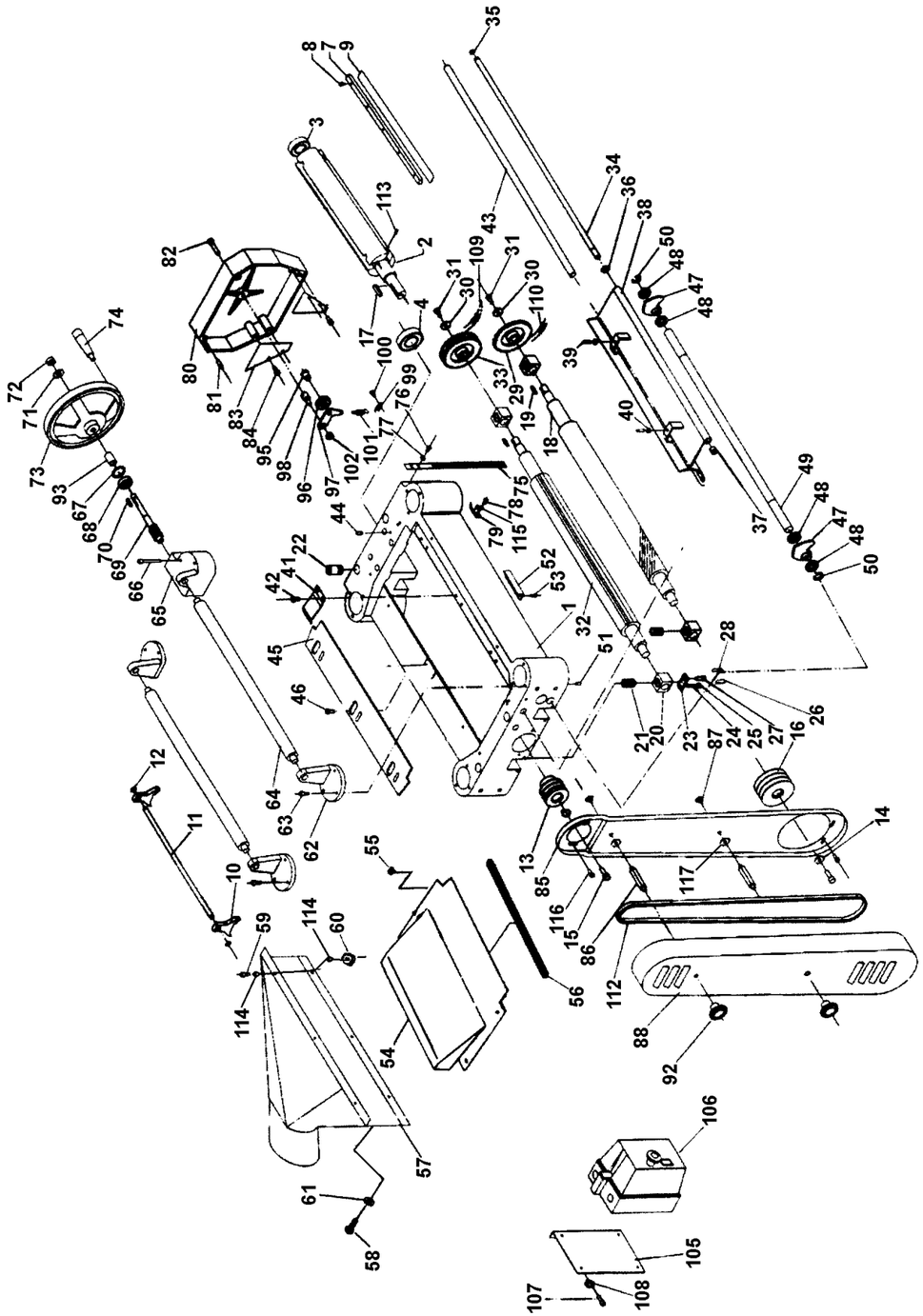


FIGURE 4

TABLE & COLUMN PARTS DIAGRAM
MODEL: KC-385FX-CE



HEAD PARTS DIAGRAM
MODEL: KC-385FX-CE



ASSEMBLY & ADJUSTMENTS

ASSEMBLING AND ALIGNING MOTOR, MOTOR PULLEY AND BELTS

1. Assemble the motor to the motor mounting plate, as shown in Fig.5.

NOTE : It is very important that the motor be mounted to motor plate by using the mounting hardware (A) Fig.5.

2. Assemble the motor pulley (H) to the motor shaft with the key in place and tighten the hex. bolt (3) in the motor shaft, as shown in Fig.6.

3. Using a staight edge, align the motor and cutterhead pulleys as shown in Fig.7, the motor plate (B) Fig.5 can be moved for alignment by loosening the set screws (C) in the motor plate (B) as shown in Fig.5.

4. Assemble the belts to the two pulleys, as shown in Fig.7. and adjust for the proper belt tension by raising or lowering the motor plate, as shown in Fig.8, then tighten the nuts (A) Fig.8. Correct tension is obtained when there is approx. 6mm (1/4”) deflection of the center span of the pulleys by using light finger pressure on each belt.

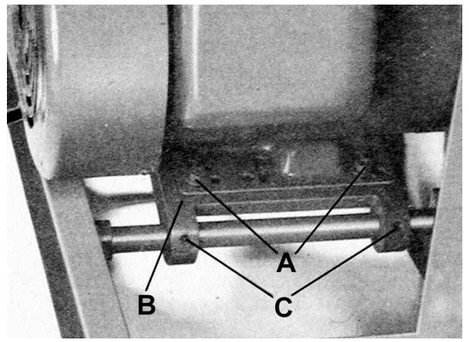


FIGURE 5

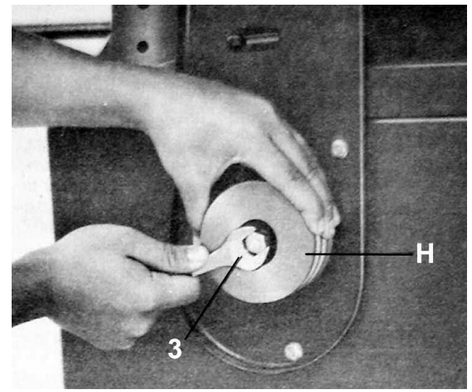


FIGURE 6

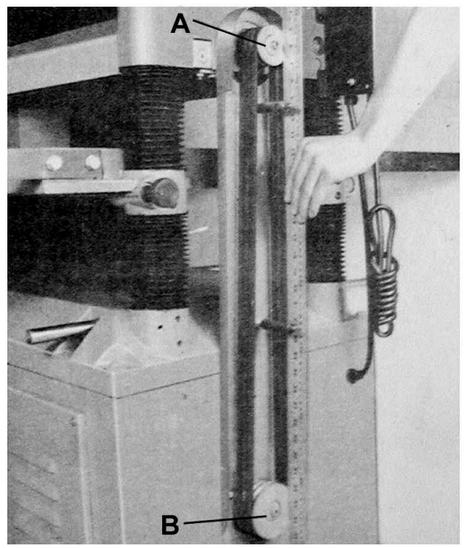


FIGURE 7

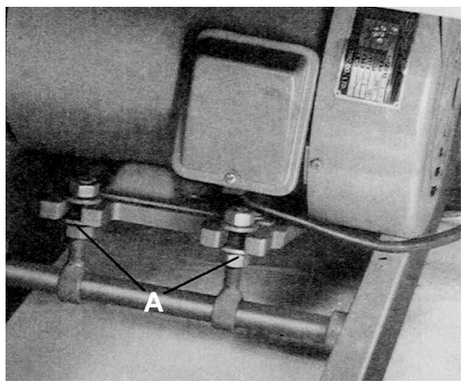


FIGURE 8

ADJUSTING TABLE ROLLERS

Your planer is supplied with two table rollers (A) Fig.9, which aid in feeding the 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 rollers because each type of wood behaves differently.

As a general rule, when planing rough stock, the table rollers should be set at a high position, and when planing soft and smooth stock the table rollers should be set at a low position. The rollers should be set at the level which most reflects the planing you do, frequent adjustment of the table rollers may cause premature wear and tear.

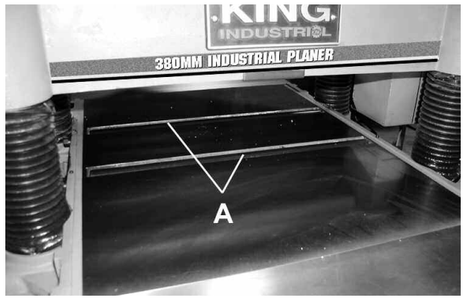


FIGURE 9

NOTE: The raising range is between 0.07mm - 0.15mm (0.003”-0.006”) when raising the roller higher above the table as shown in Fig.10.

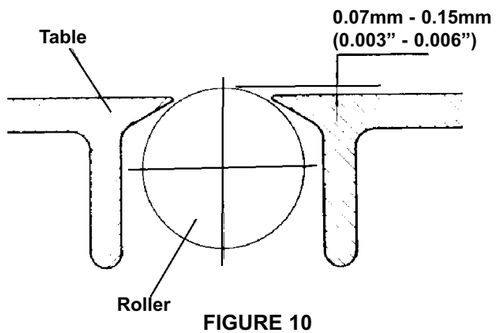


FIGURE 10

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, preceed as follows;

1. Disconnect the planer from the power source.

2. Lay a straight edge (A) Fig.11 across both rollers, loosen both set screws (B) Fig.11, and turn the eccentric shafts (C) to raise or lower the table rollers, when the proper height is obtained tighten screws (B). The table rollers must be adjusted on the opposite end of the table in the same manner.

NOTE: Be sure that the height of the front and rear rollers are the same. The table rollers must always be set parallel to the table.

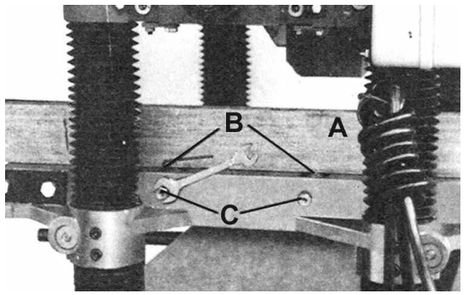


FIGURE 11

ASSEMBLING SOLID TABLE EXTENSIONS

Solid table extensions are supplied and can be assembled to the front and back of your planer table. To install the front extension table, hold the extension table against the front of the table and using hex. bolts and washers (A) Fig.12 supplied, fix the extension table to the table.

To adjust the extension table parallel with the table surface, place a straight edge on the top of the table and extension table. Adjust the position of the extension table by using the set screws (B) Fig.12 found underneath until the table extension and the main table are perfectly parallel.

Repeat the above steps for the rear extension table.

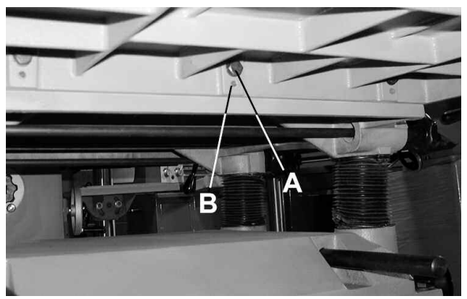


FIGURE 12

Below you will find lubrication instructions and maintenance intervals to maintain your planer in good working order. Failure to upkeep your planer as prescribed on this page will reduce its life span. The No. in chart below refers to the figures below.

Lubrication Guide for Industrial Planer KC-385FX-CE

No.	Position	Interval	Suitable Types of Lubricants
1	Chains	Frequently	Grease
2	Gear Box	When operated more than 2,500 hours	HD-100, Mobil Gear 627, Shell Omala 100, ESSO Spartan EP-1004
3	Roller Brackets	Frequently	SAE-30
4	Worm Gear	Frequently	Grease
5	Lead Screws	Frequently	Grease
6	Columns	Frequently	SAE-30
7	Chain	Frequently	Grease
8	Bushings	Frequently	SAE-30

LUBRICATION GUIDE FOR GEAR BOX

The gear box lubricant must be replaced every 2,500 hours of operation. Suitable lubricant is multi-purpose gear box lubricant.

To replace oil in gear box:

1. Remove the drain plug (A) Fig.30 and oil level cap (B), drain dirty oil thoroughly.

2. Reposition and tighten the drain plug (A).

3. Remove cap screw (C) Fig.31 and pour oil through cap screw hole. Fill the gear box with oil until the oil starts coming out of the oil level cap hole (B).

4. Reposition and tighten the oil level cap (B) and the cap screw (C).

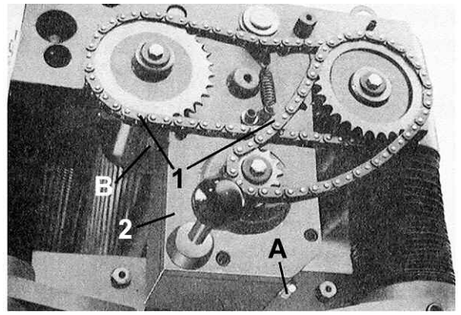


FIGURE 30

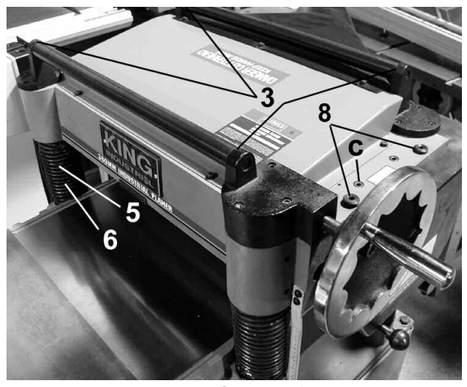


FIGURE 31

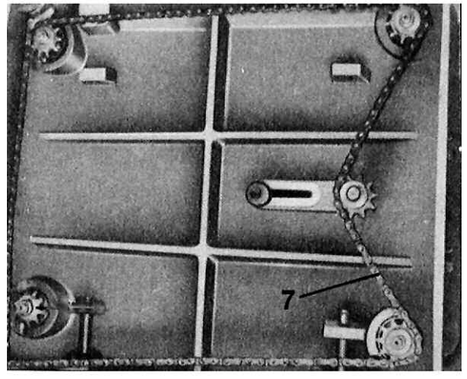


FIGURE 32

FEED SPEED CONTROL

Your planer is equipped with a spiral, serrated infeed roller and a solid steel outfeed roller. When the feed rollers are engaged, they turn to feed stock. The feed rollers slow down automatically when the planer is under heavy load. The feed rollers are driven by chains (D) Fig. 27 and the sprockets (E), which take power directly from the cutterhead through the oil gear box (F).

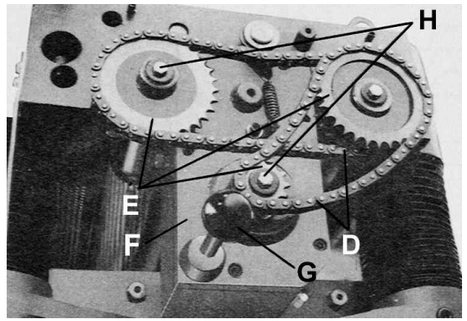


FIGURE 27

WARNING! ONLY CHANGE FEED SPEED WHEN THE MACHINE IS RUNNING.

There are two feed speeds in the gear box, they are controled by using the speed shift lever (G) Fig.27. When the speed shift lever is completely pushed in (A) Fig.28, the feed speed rate is 9.1m/min (30 ft/min), when it is completely pulled out (C) the feed speed rate is 4.8m/min (16 ft/min) and the center position (B) is a neutral setting.

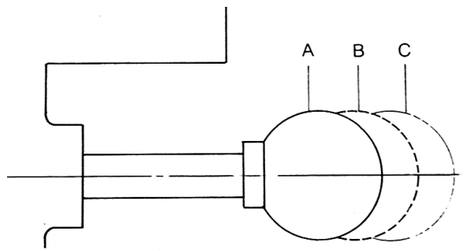


FIGURE 28

RETURN ROLLERS

The two return rollers (A) Fig. 29 on the top of the planer serve as a convenient stock rest. When planed lumber is returned to the infeed side, it saves time and motion.

100MM (4") DUST COLLECTOR HOOD

This standard accessory dust collector hood (B) Fig.29 is assembled to the rear of the planer using hex. bolts and washers. Connecting a dust collector to your planer provides an efficient means of maintaining a clean and safe work area. Good dust collection and chip removal is essential for smooth planing.

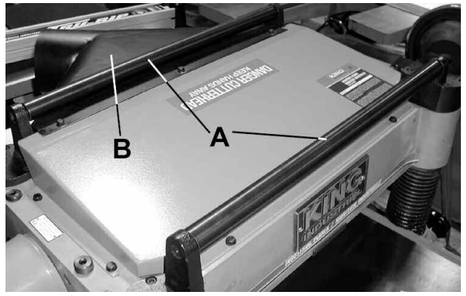


FIGURE 29

ASSEMBLY & ADJUSTMENTS

CONTROLLING THE DEPTH OF CUT

The cutting depth scale (A) Fig.13 includes a combination of inch/metric measurements with a cutting range from 0 - 203mm (0" to 8"). The upward or downward movement is controlled by the handwheel (B). One turn of the handwheel will increase or decrease the height by 1.5mm (0.059"). Before attempting to move the position of the head up or down, loosen the lock knobs (C). Once the head is at the proper height, retighten lock knobs (C).

ADJUSTEMENTS & TOOLS NEEDED

Although your planer was carefully adjusted at the factory, it should be checked before being put into operation. Any inaccuracies due to rough handling in transit can easily be corrected by following these directions. In order to check the adjustments you will need a straight edge, feeler gauge and a homemade gauge block made of hard wood. This gauge block can be made by following the dimensions shown in Fig.14.

FIGURE 13

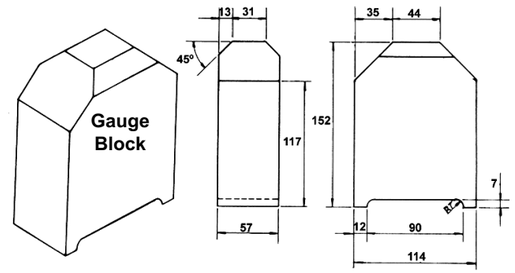


FIGURE 14

CHECKING, ADJUSTING & REPLACING CUTTERHEAD KNIVES

WARNING! When checking adjustments, always make sure the planer is disconnected from the power source.

When checking, adjusting or replacing the cutterhead knives, proceed as follows;

1. Disconnect the planer from the power source.

2. Remove the six screws (A) Fig.15, and remove the upper cover (B). Only 4 of the 6 screws are shown in Fig.15.

3. To check and adjust knives, use the knife gauge (A) Fig.16 and check all three knives. Knives should just contact the bottom of the center protrusion (B) of the knife gauge, as shown in Fig.16.

4. If an adjustment to one or more of the knives is necessary, slightly loosen the knife locking bars (C) Fig.16, of all three knives by turning the 5 locking bolts (D) Fig.16 of each knife locking bar into the knife locking bars just enough to relieve stress in the cutterhead and not disturb the setting of the knives.

5. Using the knife gauge, adjust the knife that must be reset by loosening all 5 locking bolts (D) Fig.16, by turning them into the knife locking bar. The knife locking bar becomes loose and knife adjustment is now possible. Using the hex. key supplied, unscrew Jackscrews (E) located under the knife until the knife comes into contact with the center protrusion (B) of the knife gauge (A). Then snug up the knife locking bar by lightly backing out the 5 locking bolts (D) against the slot.

NOTE: At this time, only tighten the knife enough to hold the knife in place. The knife will be secured properly once all other knives have been checked and adjusted.

6. If additional knives must be reset, repeat step 5.

7. After all three knives are set with the bolts just snug, back out and tighten the 5 locking bolts against the slot starting with the end bolts first, then the center bolts until the knife is securely held in the cutterhead. Tighten the remaining two knives in the same manner.

NOTE: Double check all bolts for tightness.

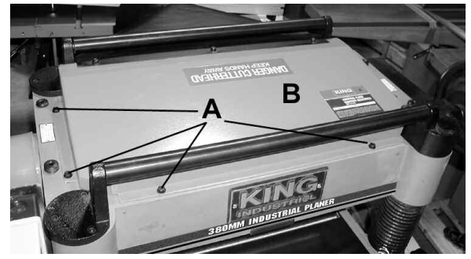


FIGURE 15

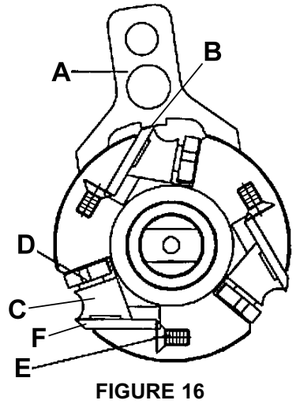


FIGURE 16

CHECKING WORK TABLE PARALLEL TO CUTTERHEAD

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

1. Disconnect the planer from the power source.

2. Place the gauge block (A) Fig.17 on the work table directly under the front edge of the head casting (B), make slight contact by gently raising the table as shown in Fig.17.

3. Move the gauge block (A) to the opposite end of the work table as shown in Fig.18.

IMPORTANT: The distance from the work table to the edge of the head casting should be the same.

4. Adjust opposite end in the same manner.

ADJUSTING WORK TABLE PARALLEL TO CUTTERHEAD

If the work table is not parallel to the cutterhead, peform the following adjustments;

1. Disconnect the planer from the power source.

2. Tilt planer on its side to expose the underside of the base as shown in Fig. 19.

3. Remove cap screw (A) and loosen cap screw (B) Fig.19, these two cap screws will allow you to move the idler sprocket assembly (C) far enough to release tension on the chain as shown in Fig.20.

4. Remove chain from the sprocket from the corner which needs adjusting. Fig.20 shows the chain removed from the sprocket (D).

5. Turn sprocket (D) by hand to bring that corner into adjustement with the other three corners.

IMPORTANT NOTE: Turning sprocket (D) clockwise will increase the distance between the work table and the head casting, counter-clockwise will decrease the distance. This adjustment is very sensitive and it should not be necessary to turn the sprocket more than one or two teeth.

KNOWING THE TRANSMITTING ROLLERS OF YOUR PLANER

A. Infeed roller
B. Outfeed roller
C. Chipbreaker
D. Cutterhead
E. Pressure bar
F. Anti-kickback fingers

The infeed roller and outfeed roller feed the stock while it is being planed. Both these rollers are under spring tension and this tension must be sufficient to feed the stock uniformly through the planer without slipping but shouldn't be too tight that it causes damage to the workpiece. The tension should be equal at both ends of each roller.

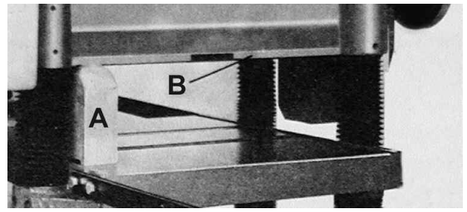


FIGURE 17

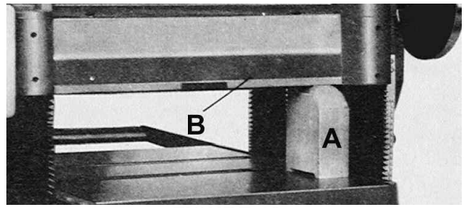


FIGURE 18

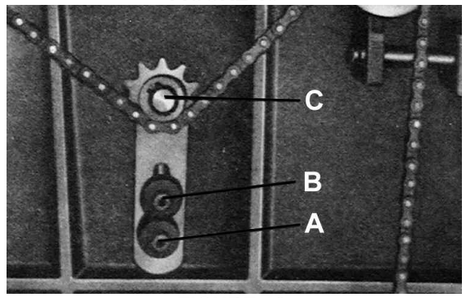


FIGURE 19

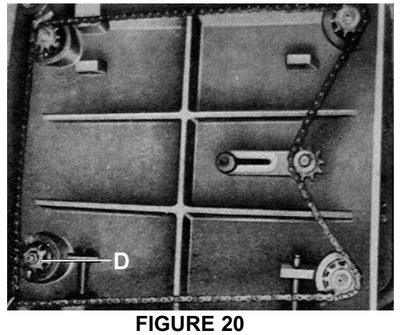


FIGURE 20

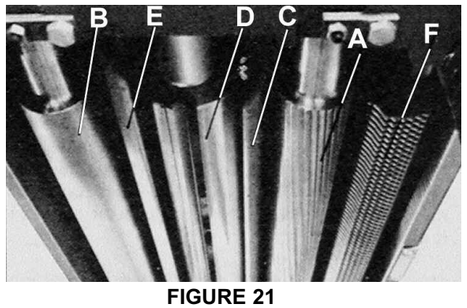


FIGURE 21

ADJUSTING INFEED AND OUTFEED ROLLER SPRING TENSION

To adjust the spring tension of the infeed and outfeed roller, using a hex. key, turn set screw (A) Fig.22 to adjust the infeed roller spring tension and set screw (B) to adjust the outfeed roller spring tension. Make sure that both sides are adjusted evenly or else you will get uneven feeding of stock.

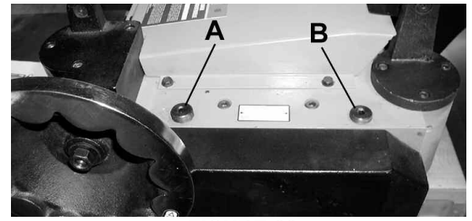


FIGURE 22

ANTI-KICKBACK FINGERS

Anti-kickback fingers (F) Fig.23 are provided for your safety to prevent workpiece kickbacks. These fingers operate by gravity and it is necessary to inspect them occasionally to make sure they are free of gum and pitch so that they can move independently and operate correctly.

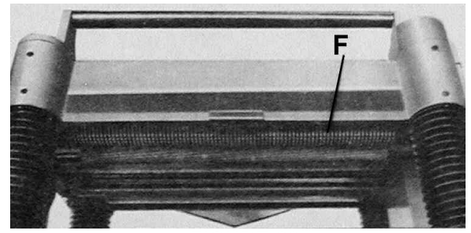


FIGURE 23

CHECKING AND ADJUSTING THE HEIGHT OF INFEED ROLLER, CHIPBREAKER, PRESSURE BAR AND OUTFEED ROLLER

The infeed roller, chipbreaker, pressure bar and outfeed roller are adjusted at the factory. The infeed roller and the chipbreaker were set at 0.1mm (0.004"), the pressure bar was set at 0.2mm (0.008") and the outfeed roller was set at 0.5mm (0.02") and all of them below the cutting circle as shown in Fig.24. If an adjustment to the infeed roller, chipbreaker, pressure bar or outfeed roller is necessary, follow the next steps;

Example: To check and adjust the outfeed roller 0.5mm (0.02") below the cutting circle, proceed as follows;

1. Disconnect planer from power source.
2. Make sure the knives are adjusted properly before attempting the following adjustment.
3. Place the gauge block (G) on the table directly underneath the cutterhead, as shown in Fig.25. Using a 0.5mm (0.02") Feeler gauge (D) placed on top of the gauge block, raise the work table until the knife just touches the feeler gauge when the knife is at its lower point. Do not move the work table any further until the outfeed roller is adjusted.
4. Move the gauge block (G) under one end of the outfeed roller (B) as shown in Fig.26. The bottom of the outfeed roller should just touch the top of the gauge block. If an adjustment to the outfeed roller is necessary, loosen the lock nut (K) Fig.26 and turn screw (L) until the outfeed roller just touches the gauge block. Retighten lock nut (K).
5. Check and adjust the opposite end of the outfeed roller in the same manner.

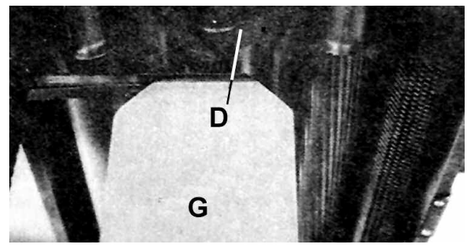


FIGURE 25

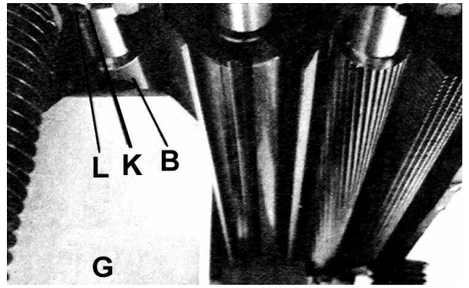


FIGURE 26

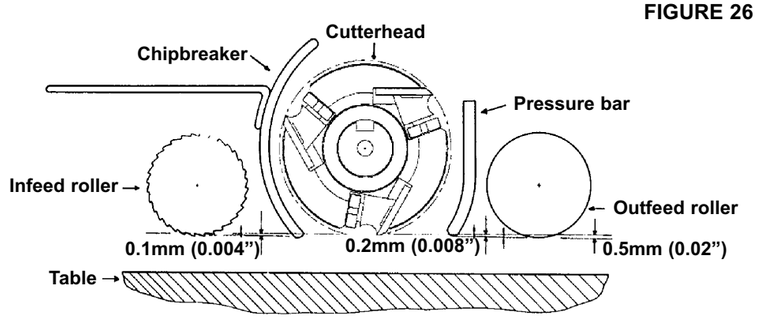


FIGURE 24