



508MM INDUSTRIAL PLANER



MODEL: KC-520C-CE



INSTRUCTION MANUAL

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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-520C-CE



No.	Part Order #	Description	Qty
181	4505201810	Bearing	1
182	4505201820	Oil seal	1
183	4505201830	Sprocket	1
184	4505201840	Key	1
185	4505201850	Washer	1
186	4505201860	Hex. screw	1
187	4505201870	Clutch	1
188	4505201880	Handle	1
189	4505201890	Oil ring	1
190	4505201900	Knob	1
191	4505201910	Pin	2
192	4505201920	Gasket	1
193	4505201930	Gear box cover	1
194	4505201940	Cap screw	5
195	4505201950	Oil plug	2
196	4505201960	Retaining ring	1
197	4505201970	Chain	1
198	4505201980	Bearing	1
199	4505201990	Enclosed stand	1
200	4505202000	Cover	1
201	4505202010	Cr. hd. sinking screw	8
202	4505202020	Motor plate	1
203	4505202030	Cap screw	2
204	4505202040	Plate connecting rod	2
205	4505202050	Cap screw	2
206	4505202060	Collar	1
207	4505202070	Set screw	1
208	4505202080	Adjust bolt	2
209	4505202090	Hex. nut	4

No.	Part Order #	Description	Qty
210	4505202100	Washer	4
211	4505202110	Motor	1
212	4505202120	Washer	8
213	4505202130	Hex. nut	4
214	4505202140	Hex. bolt	4
215	4505202150	Trolley bracket	1
216	4505202160	Special bolt	1
217	4505202170	Washer	1
218	4505202180	Hex. nut	1
219	4505202190	Sleeve	1
220	4505202200	Trolley wheel	1
221	4505202210	Bearing	2
222	4505202220	Retaining ring	2
223	4505202230	Bracket	1
224	4505202240	Hex. bolt	2
225	4505202250	Washer	4
226	4505202260	Hex. bolt	1
227	4505202270	Hex. nut	1
228	4505202280	Pedal	1
229	4505202290	Shaft	1
230	4505202300	Washer	2
231	4505202310	Retaining ring	2
232	4505202320	Sleeve	2
233	4505202330	Hex. bolt	2
234	4505202340	Washer	4
235	4505202350	Hex. nut	2
236	4505202360	Rear wheel	2
237	4505202370	Strain relief	1



PARTS LIST
MODEL: KC-520C-CE

No.	Part Order #	Description	Qty
91	4505200910	Bolt	2
92	4505200920	Washer	2
93	4505200930	Hex. nut	2
94	4505200940	Belt cover	1
95	4505200950	Hex. screw	4
96	4505200960	Hex. nut	4
97	4505200970	Washer	8
98	4505200980	Lock knob	2
99	4505200990	Washer	4
100	4505201000	Hex. screw	4
101	4505201010	Collar	1
102	4505201020	Column	3
103	4505201030	Shaft	1
104	4505201040	Idle pulley	1
105	4505201050	Bracket	1
106	4505201060	Shaft	1
107	4505201070	Hanger	1
108	4505201080	Spring	1
109	4505201090	Collar	1
110	4505201100	Bearing	4
111	4505201110	Retaining ring	4
112	4505201120	Column	1
113	4505201130	Cap screw	2
114	4505201140	Chain	1
115	4505201150	Magnetic switch	1
116	4505201160	Cap screw	2
117	4505201170	V-belt	3
118	4505201180	Retaining ring	1
119	4505201190	Set screw	16
120	4505201200	Lead screw	3
121	4505201210	Lead screw	1
122	4505201220	Nut	4
123	4505201230	Cap screw	8
124	4505201240	Bush	1
125	4505201250	Gear	1
126	4505201260	Key	1
127	4505201270	Retaining ring	1
128	4505201280	Sprocket	4
129	4505201290	Key	4
130	4505201300	Washer	4
131	4505201310	Hex. nut	4
132	4505201320	Shaft	1
133	4505201330	Retaining ring	1
134	4505201340	Bracket	1
135	4505201350	Hex. screw	2

No.	Part Order #	Description	Qty
136	4505201360	Sprocket	1
137	4505201370	Washer	2
138	4505201380	Lifting handle	4
139	4505201390	Retaining ring	4
140	4505201400	Pipe band	16
141	4505201410	Pan hd. screw	32
142	4505201420	Expansion band	8
143	4505201430	Chain	1
144	4505201440	Table	1
145	4505201450	Roller	2
146	4505201460	Bearing	4
147	4505201470	Eccentric shaft	4
148	4505201480	Set screw	4
149	4505201490	Lock bar	2
150	4505201500	Locksmith	2
151	4505201510	Locking bolt	2
152	4505201520	Knob	2
153	4505201530	Solid extension table	2
154	4505201540	Spring washer	6
155	4505201550	Washer	6
156	4505201600	Hex. screw	6
157	4505201570	Set screw	6
158	4505201580	Gear box	1
159	4505201590	Cap screw	4
160	4505201600	Flange cover	1
161	4505201610	Cap screw	3
162	4505201620	Oil seal	1
163	4505201630	Gear	1
164	4505201640	Cap screw	1
165	4505201650	Pan hd. screw	1
166	4505201660	Washer	1
167	4505201670	Gear	1
168	4505201680	Shaft	1
169	4505201390	Key	1
170	4505201700	Bearing	2
171	4505201710	Gear	1
172	4505201720	Shaft	1
173	4505201730	Key	1
174	4505201740	Bearing	2
175	4505201750	Gear	1
176	4505201760	Shaft	1
177	4505201770	Key	1
178	4505201780	Spring	1
179	4505201790	Ball	1
180	4505201800	Bearing	1

**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 508MM 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

Motor3HP, 230V, 1 Phase, 50Hz

Cutting Capacities:

Minimum Length of unbutted stock171mm (6.74")

Maximum width of stock508mm (20")

Maximum Thickness of stock203mm (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, 6.1m/min (16/20 ft/min)

Jackscrew Cutterhead:

Number of knives4

Diameter80mm (3.15")

Speed5,000 RPM

Cuts per minute20,000

Feed Rollers:

Spiral Infeed Diameter51mm (2")

Table rollersAdjustable

Table652 x 508mm (25.7" x 20")

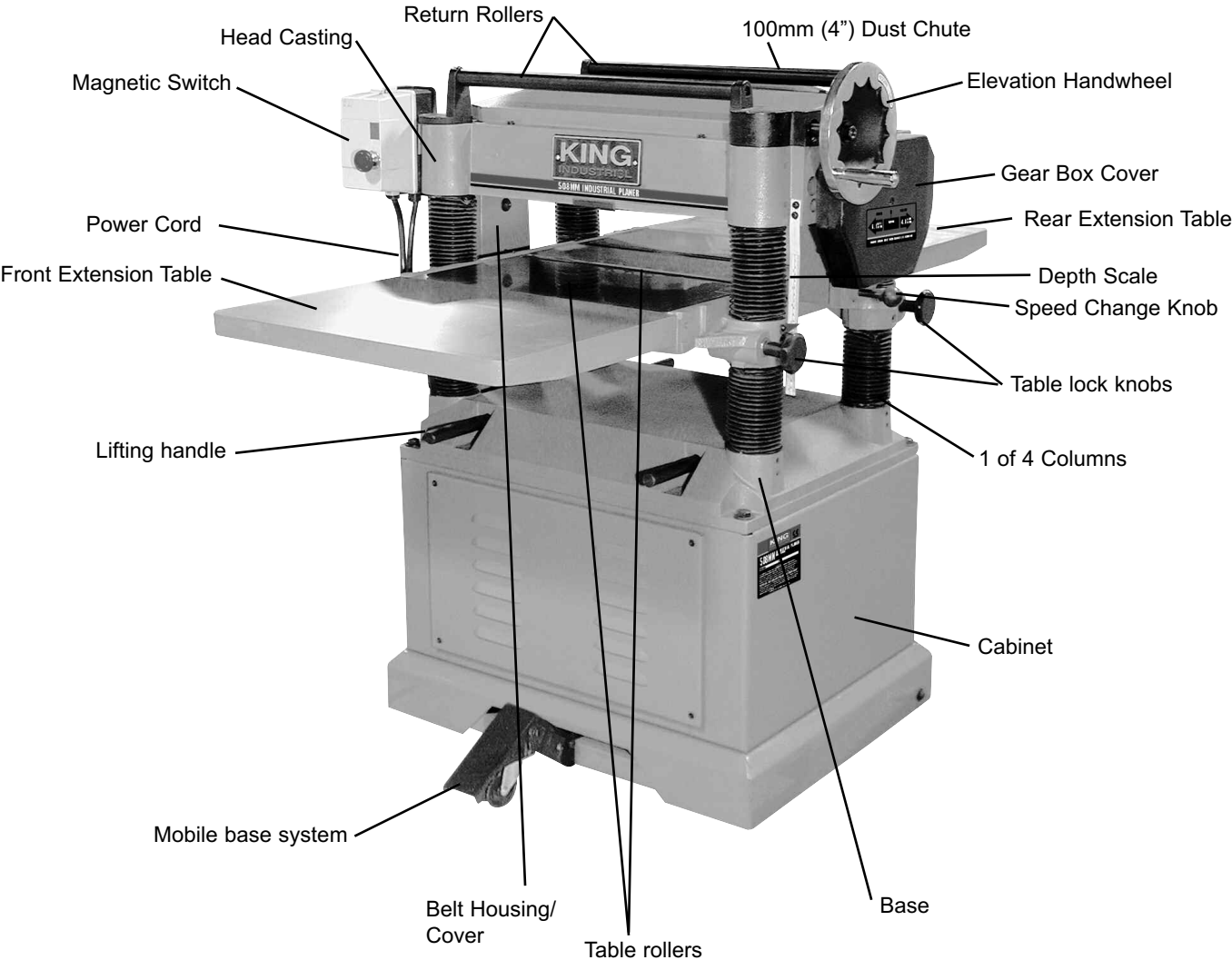


FIGURE 1

PARTS LIST
MODEL: KC-520C-CE



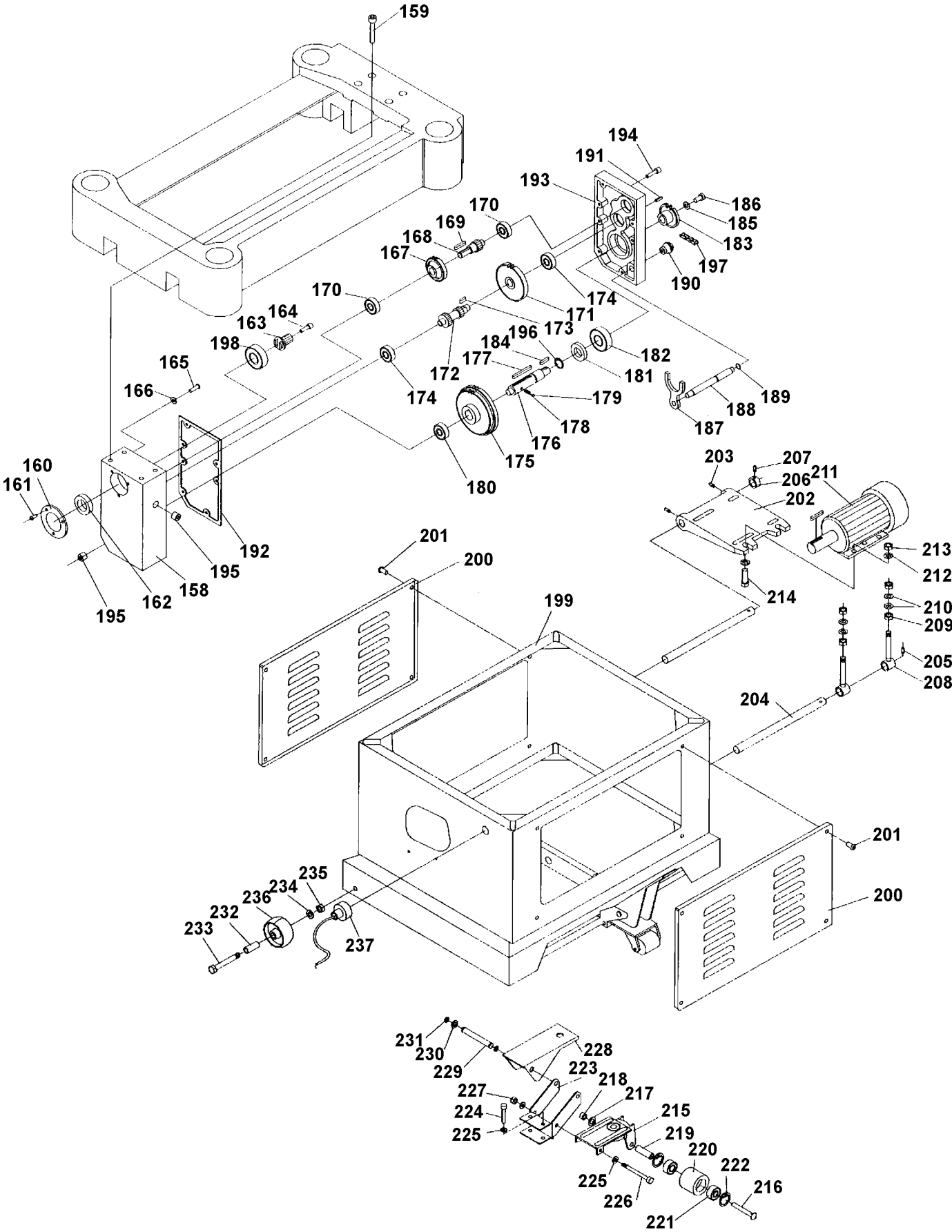
No.	Part Order #	Description	Qty
1	4505200010	Head casting	1
2	4505200020	Cutterhead	1
3	4505200030	Bearing	1
4	4505200040	Countersunk bolt	8
5	4505200050	Knife locking bar	4
6	4505200060	Knife setting screw	24
7	4505200070	Base	1
8	4505200080	508mm planer knife (set-4)	1
9	4505200090	Knife gauge	2
10	4505200100	Gauge bar	1
11	4505200110	Retaining ring	4
12	4505200120	Cutterhead pulley	1
13	4505200130	Motor pulley	1
14	4505200140	Key	1
15	4505200150	Washer	2
16	4505200160	Hex. bolt	2
17	4505200170	Infeed roller	1
18	4505200180	Key	2
19	4505200190	Bush	4
20	4505200200	Spring	4
21	4505200210	Adjust screw	4
22	4505200220	Plate	4
23	4505200230	Hex. screw	4
24	4505200240	Set screw	4
25	4505200250	Hex. nut	4
26	4505200260	Sprocket	1
27	4505200270	Washer	2
28	4505200280	Hex. bolt	2
29	4505200290	Outfeed roller	1
30	4505200300	Sprocket	1
31	4505200310	Locking bolt	1
32	4505200320	Retaining ring	1
33	4505200330	Spring washer	1
34	4505200340	Hex. nut	1
35	4505200350	Chipbreaker	1
36	4505200360	Set screw	2
37	4505200370	Hex. nut	2
38	4505200380	Plate spring	3
39	4505200390	Hex. screw	6
40	4505200400	Shaft	1
41	4505200410	Set screw	1
42	4505200420	Bracket	2
43	4505200430	Pressure plate	1
44	4505200440	Spring washer	2
45	4505200450	Hex. bolt	2

No.	Part Order #	Description	Qty
46	4505200460	Adjusting shaft	2
47	4505200470	Set screw	2
48	4505200480	Set screw	2
49	4505200490	Hex. nut	2
50	4505200500	Plate spring	1
51	4505200510	Hex. screw	1
52	4505200520	Chip deflector plate	1
53	4505200530	Hex. bolt	3
54	4505200540	Washer	3
55	4505200550	Anti-kickback finger	56
56	4505200560	Collar	57
57	4505200570	Shaft	1
58	4505200580	Retaining ring	2
59	4505200590	Set screw	1
60	4505200600	Limit plate	1
61	4505200610	Hex. screw	2
62	4505200620	Upper cover	1
63	4505200630	Hex. screw	6
64	4505200640	Foam piece	1
65	4505200650	Dust collector hood	1
66	4505200660	Hex. screw	6
67	4505200670	Roller stand	3
68	4505200680	Cap screw	9
69	4505200690	Roller	2
70	4505200700	Worm cover	1
71	4505200710	Cap screw	3
72	4505200720	Retaining ring	1
73	4505200730	Bearing	1
74	4505200740	Worm gear	1
75	4505200750	Key	1
76	4505200760	Washer	1
77	4505200770	Hex. nut	1
78	4505200780	Handwheel	1
79	4505200790	Handle	1
80	4505200800	Washer	1
81	4505200810	Washer	3
82	4505200820	Pan hd. screw	3
83	4505200830	Limit pointer	1
84	4505200840	Gear box cover	1
85	4505200850	Spring pin	2
86	4505200860	Cap screw	1
87	4505200870	Safety hatch	1
88	4505200880	Safety hatch	1
89	4505200890	Hex. screw	8
90	4505200900	Belt guard	1



CABINET & GEAR BOX PARTS DIAGRAM

MODEL: KC-520C-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 mm ²			
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.



FIGURE 3

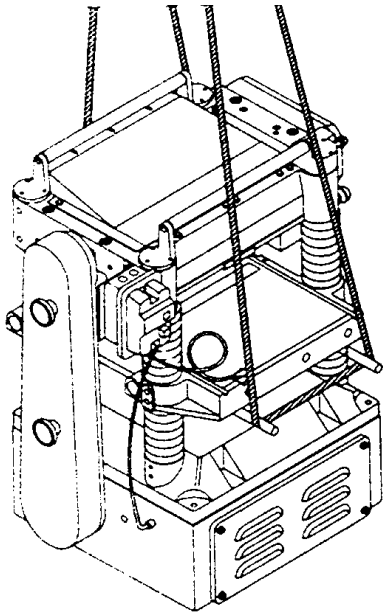


FIGURE 4

MOVING PLANER

Lifting Handles

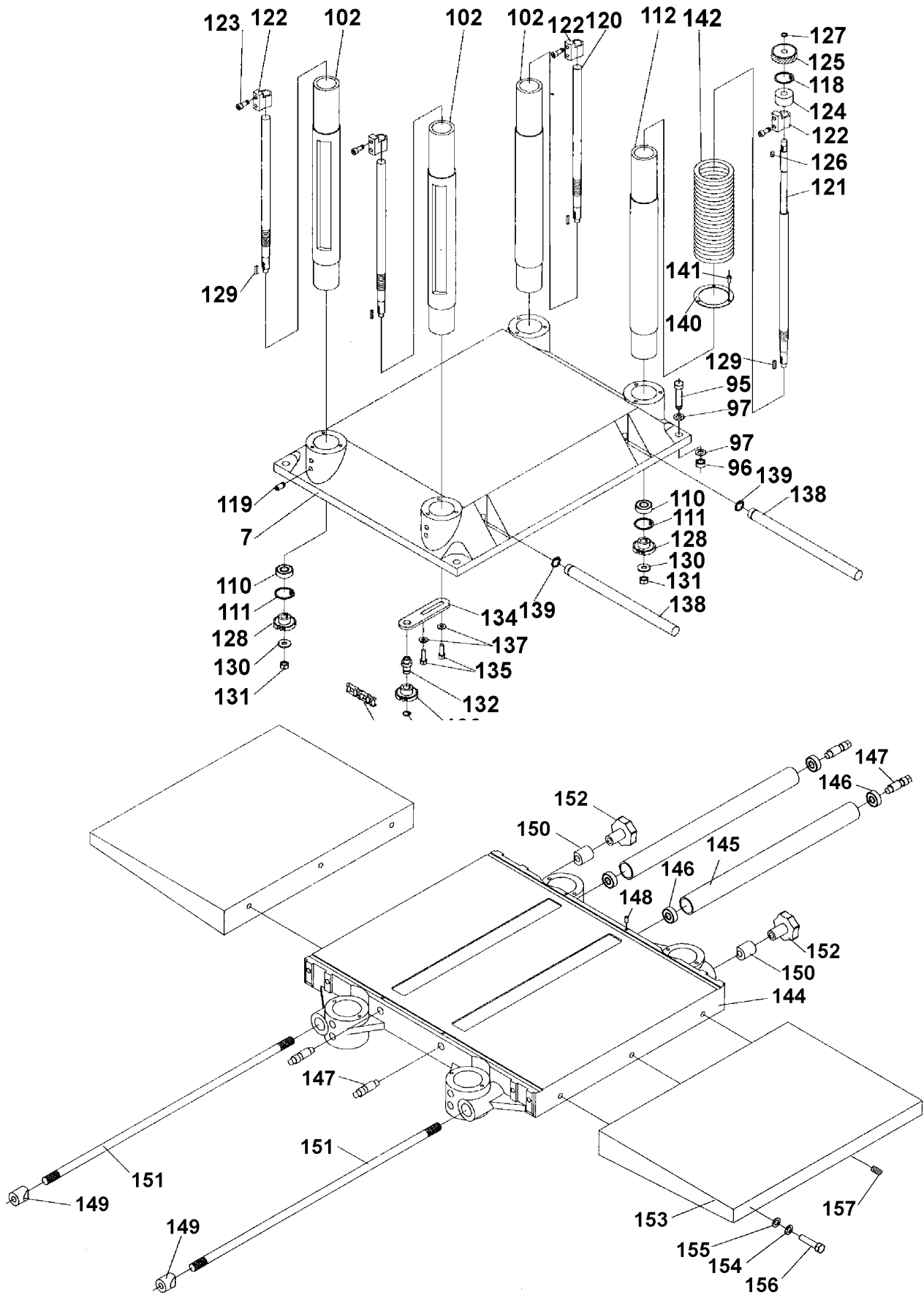
There are four lifting handles to facilitate the transportation of your planer. All lifting handles are the pull out type. Pull the handles out for use, push them back in when not in use. Two of the lifting handles (A) are as shown in Fig.3 & Fig.4.

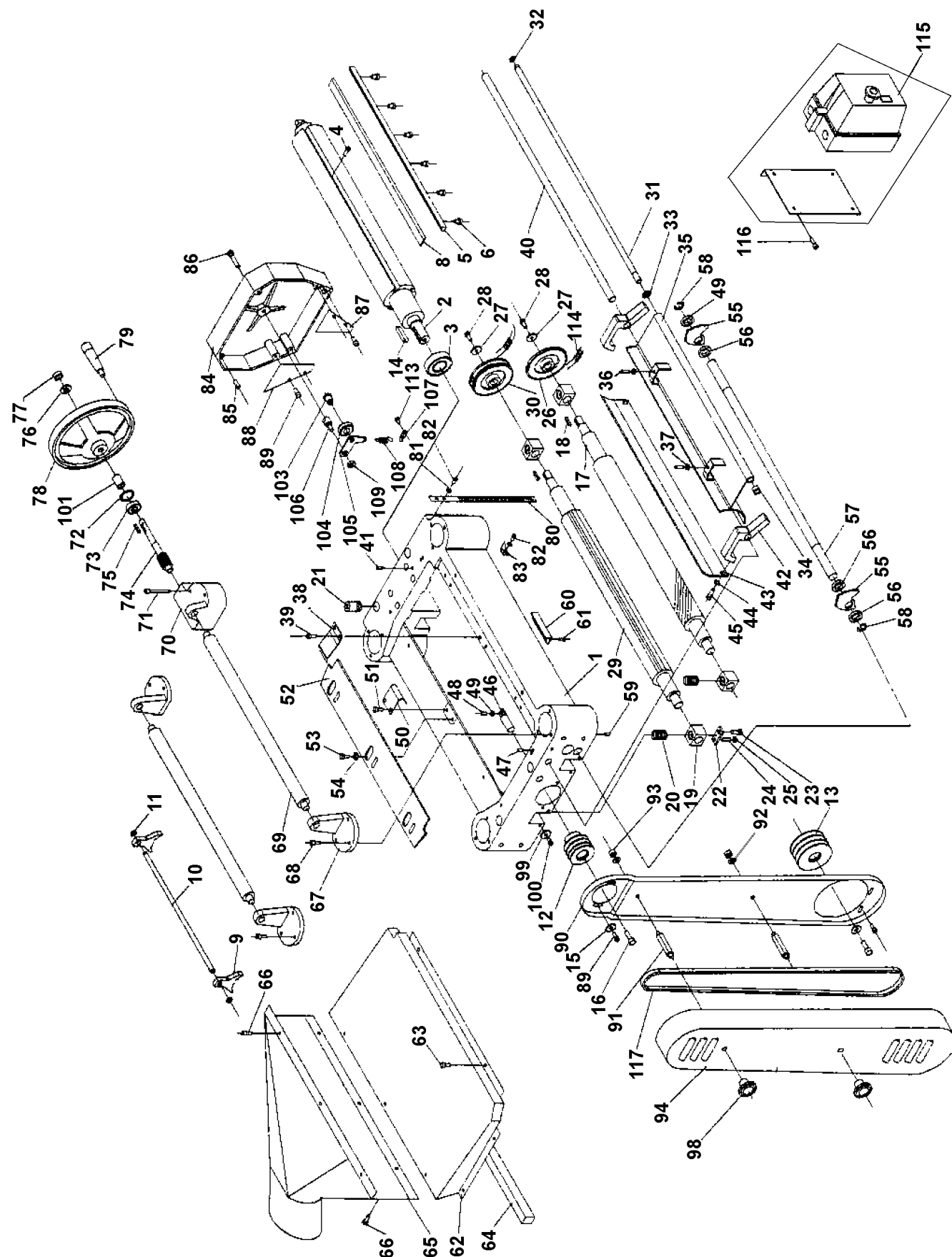
Lifting Planer

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.

TABLE & COLUMN PARTS DIAGRAM MODEL: KC-520C-CE





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 straight 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.

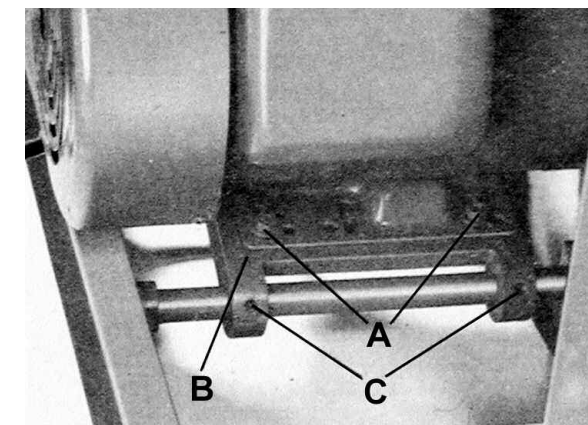


FIGURE 5

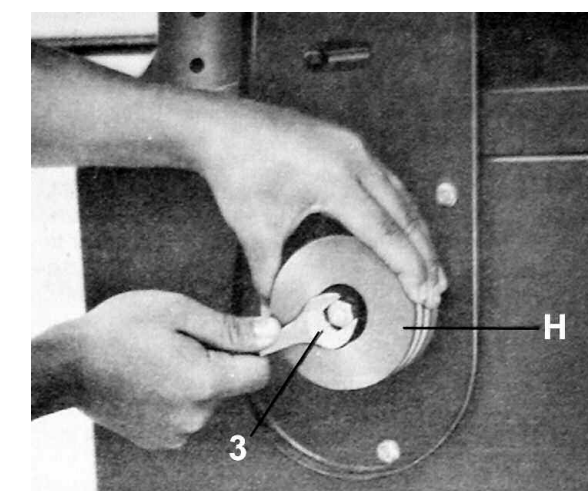


FIGURE 6

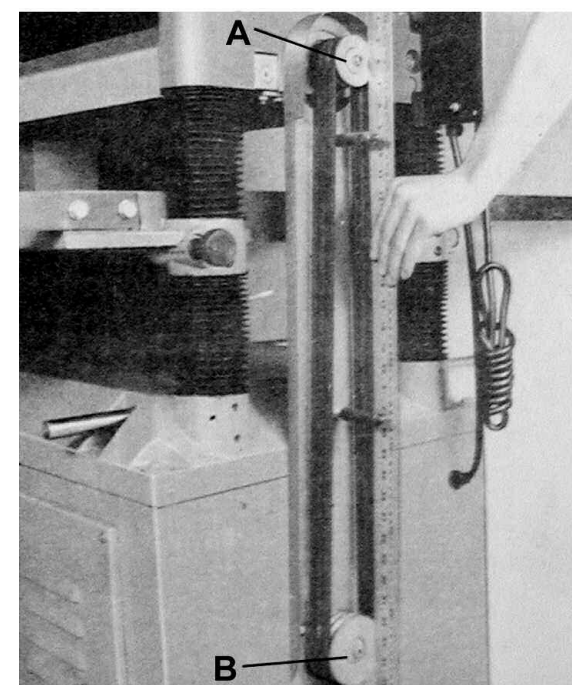


FIGURE 7

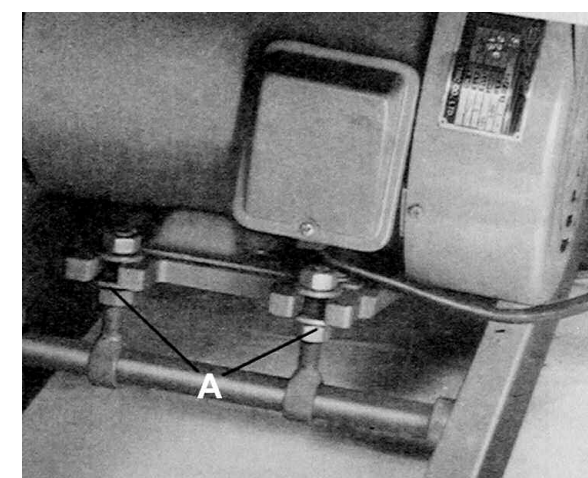


FIGURE 8

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.

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.

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 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.

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.

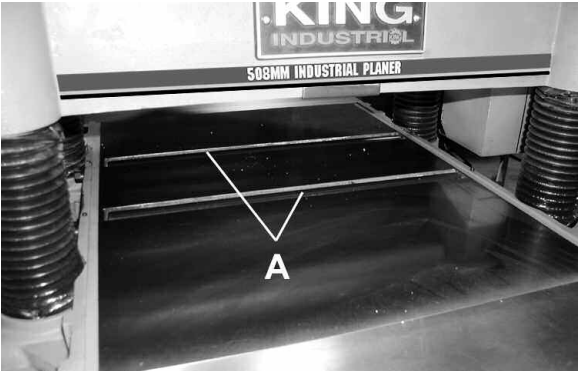


FIGURE 9

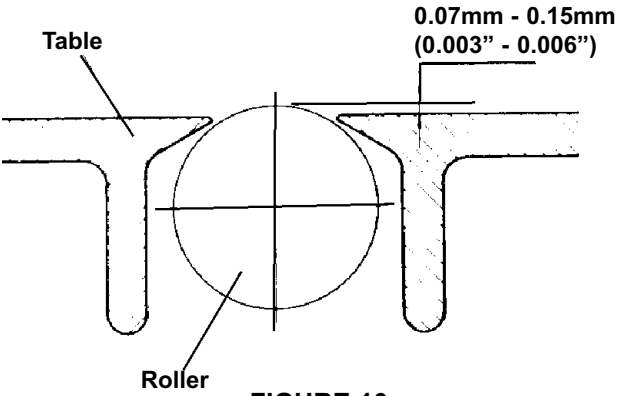


FIGURE 10

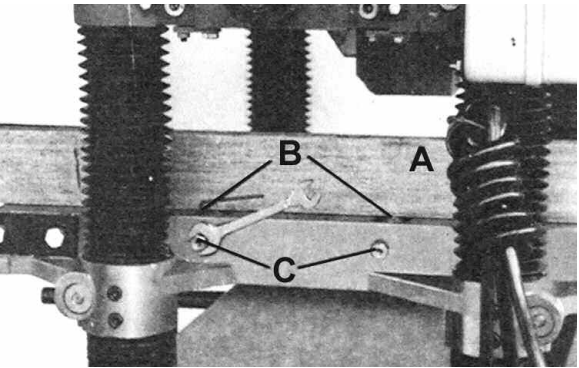


FIGURE 11

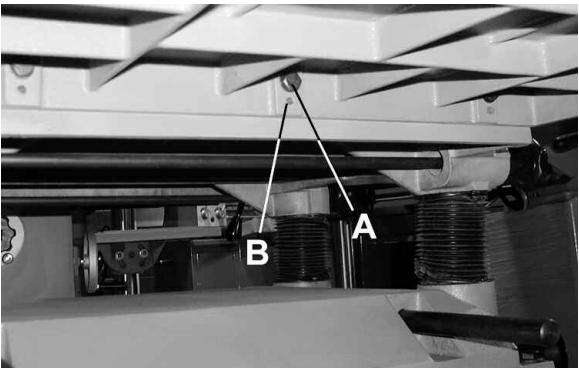


FIGURE 12

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-520C-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).

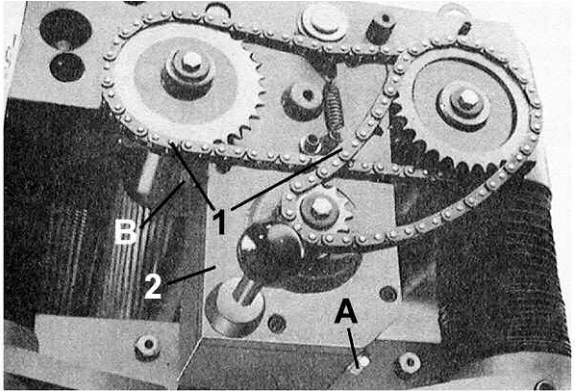


FIGURE 30

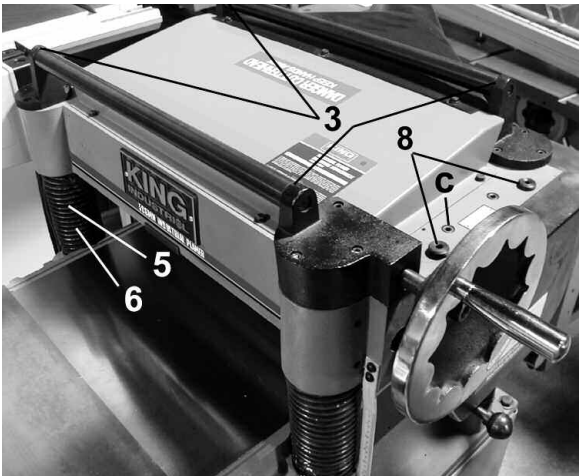


FIGURE 31

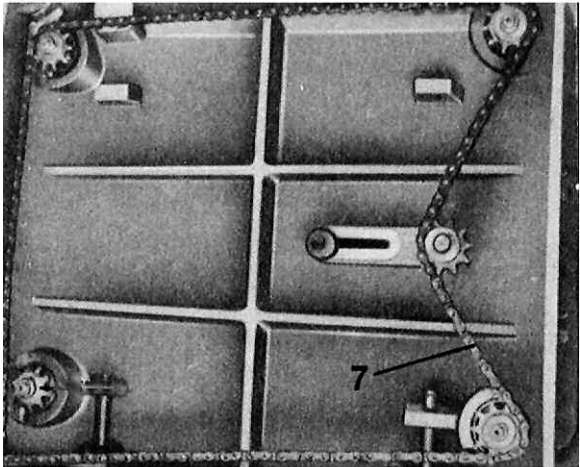


FIGURE 32



ASSEMBLY & ADJUSTMENTS

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).

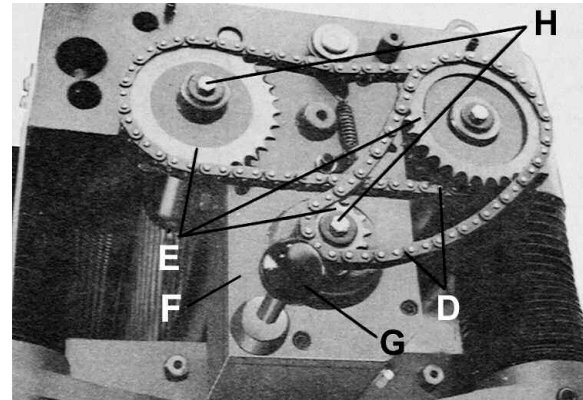


FIGURE 27

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

There are two feed speeds in the gear box, they are controlled 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 6.1m/min (20 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.

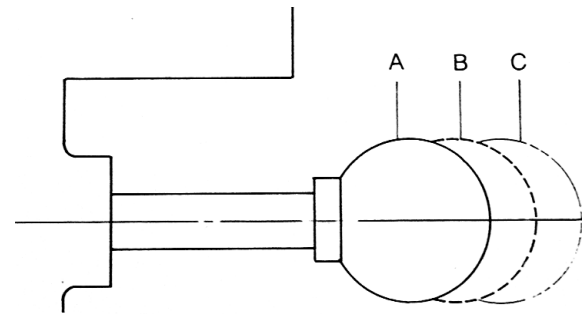


FIGURE 28

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.

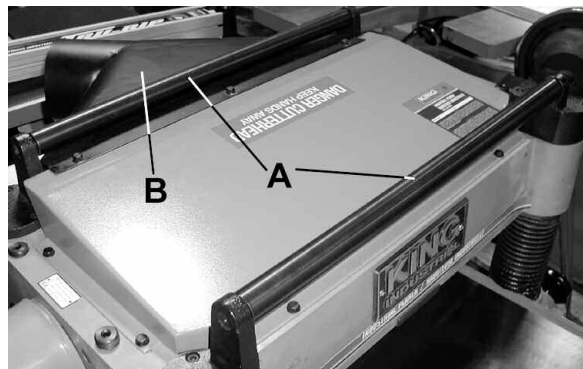


FIGURE 29

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.

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 four 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 four knives by turning the 24 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 6 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 6 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 four knives are set with the bolts just snug, back out and tighten the 6 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 three knives in the same manner.

NOTE: Double check all bolts for tightness.



FIGURE 13

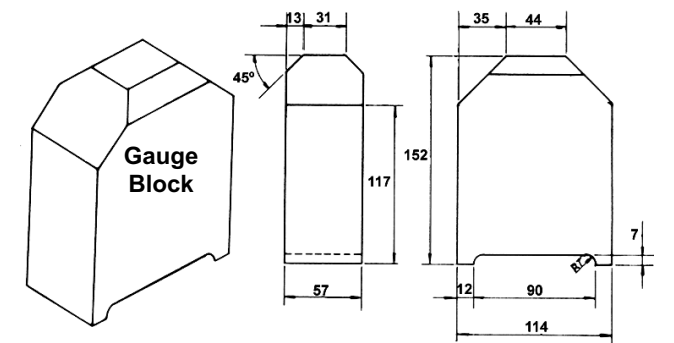


FIGURE 14

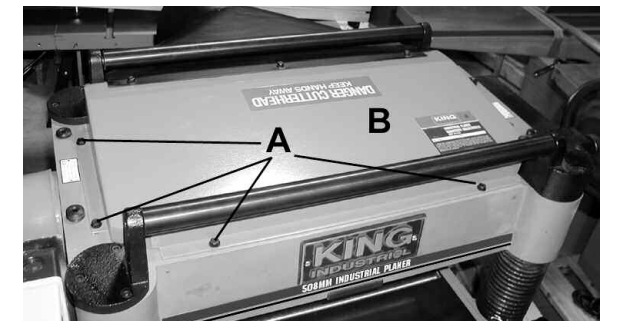


FIGURE 15

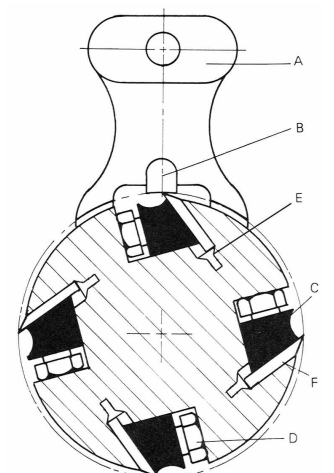


FIGURE 16

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, perform 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 adjustment 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.

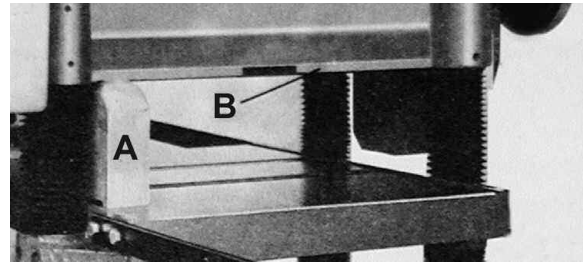


FIGURE 17

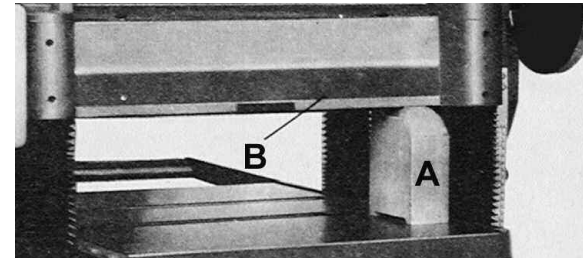


FIGURE 18

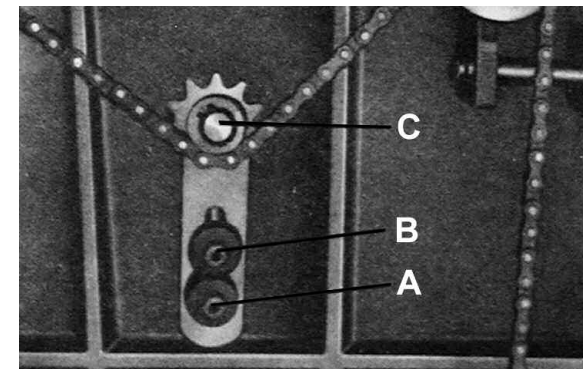


FIGURE 19

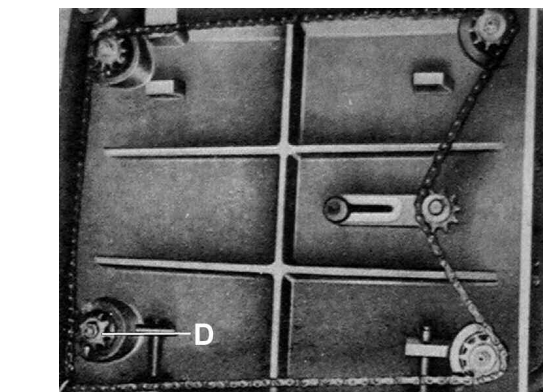


FIGURE 20

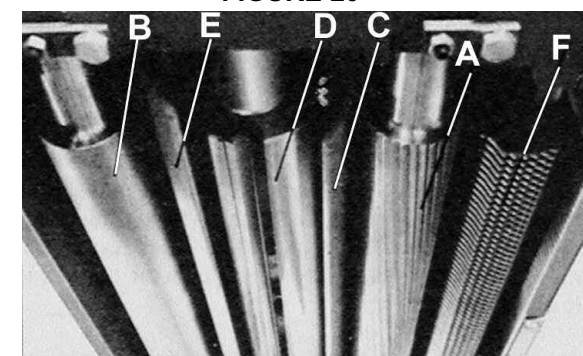


FIGURE 21

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.

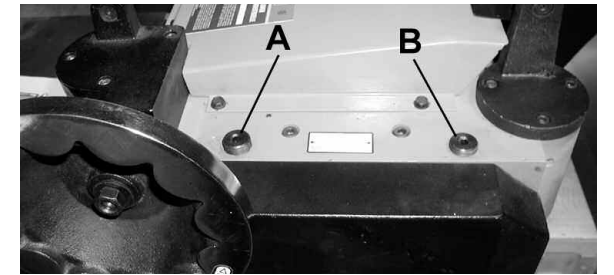


FIGURE 22

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.

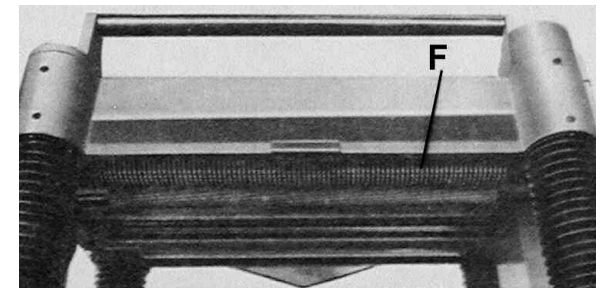


FIGURE 23

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.

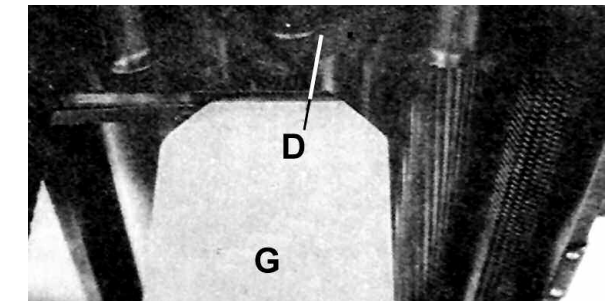


FIGURE 25

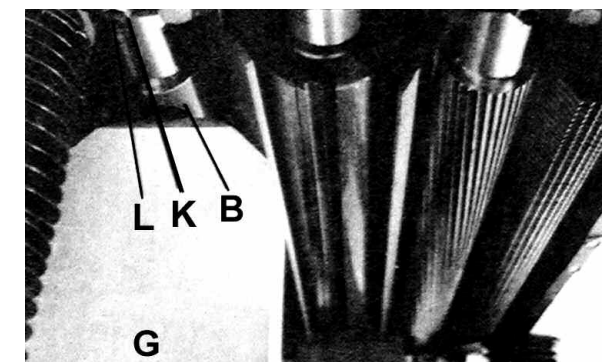


FIGURE 26

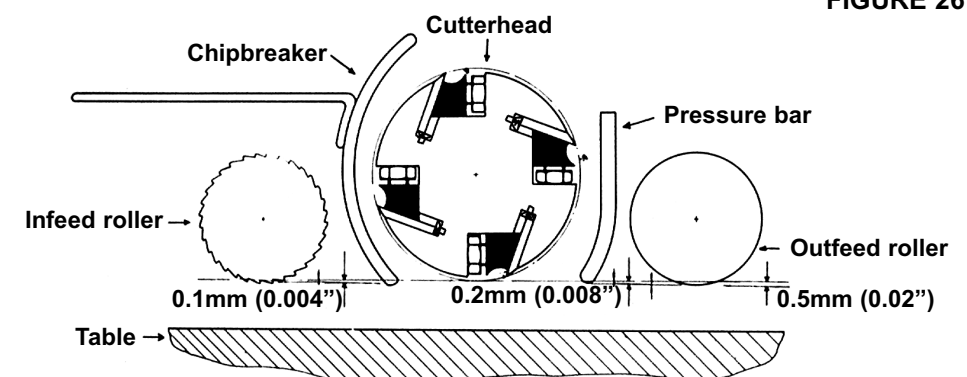


FIGURE 24