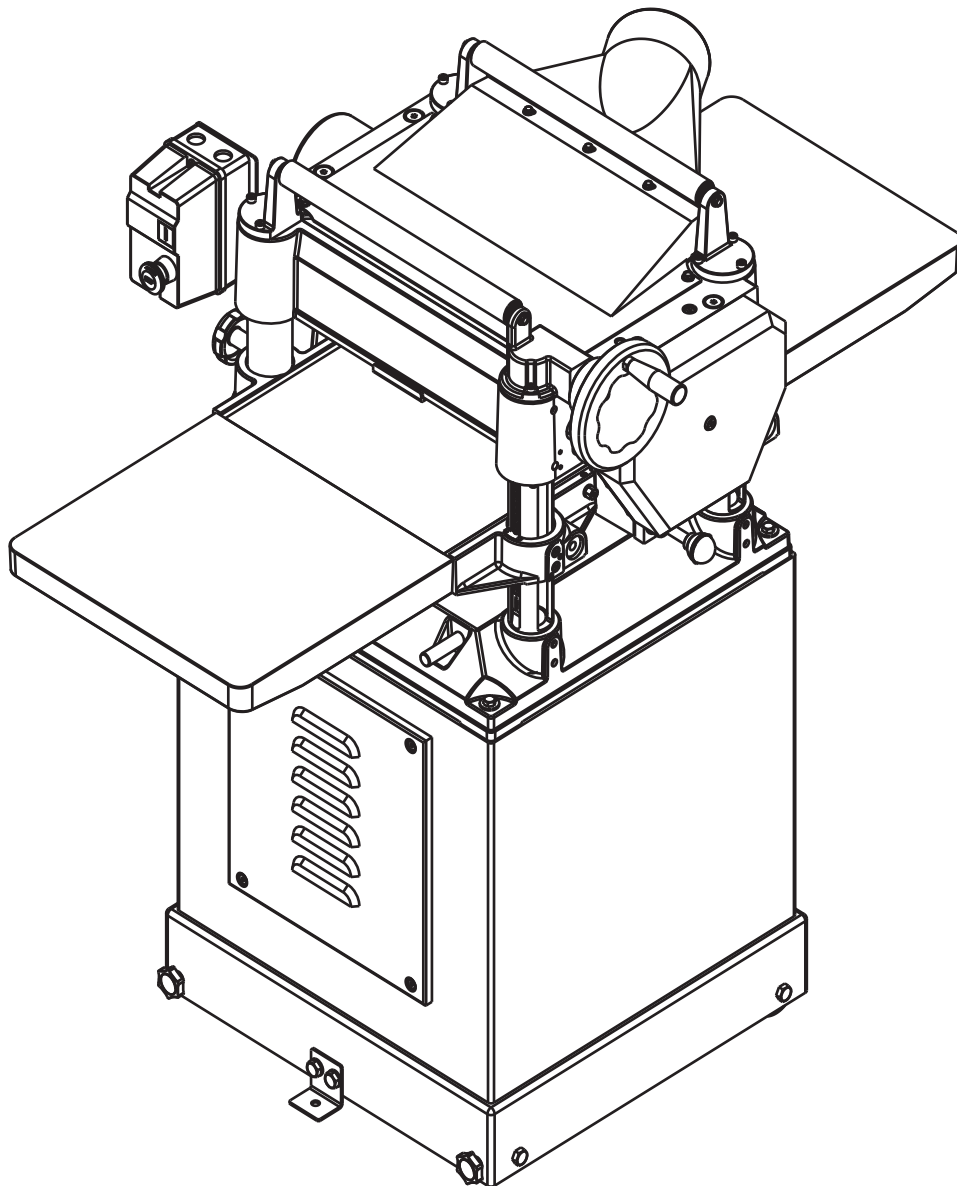


# **MAGNUM**

## **I N D U S T R I A L**

**MODEL NO.: MI-31250**



***OPERATING MANUAL***

## IMPORTANT

As with all power tools there is a certain amount of hazard involved with the operator and his use of the tool. Using the tool with the respect and caution demanded as far as safety precautions are concerned will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or completely ignored, personal injury to the operator can develop.

## SAFETY RULES

1. READ THE INSTRUCTION MANUAL BEFORE OPERATING YOUR MACHINE.
2. IF YOU ARE NOT THOROUGHLY FAMILIAR WITH THE OPERATION OF PLANERS, OBTAIN ADVICE FROM YOUR SUPERVISOR, INSTRUCTOR OR OTHER QUALIFIED PERSON.
3. REMOVE TIE, RINGS, WATCH AND OTHER JEWELRY, AND ROLL UP SLEEVES.
4. ALWAYS WEAR SAFETY GLASSES OR A FACE SHIELD.
5. MAKE SURE THE START SWITCH AND THE MACHINE IS PROPERLY GROUNDED.
6. MAKE ALL ADJUSTMENTS WITH THE POWER OFF.
7. KEEP CUTTERHEAD SHARP AND FREE OF ALL RUST AND PITCH.
8. CHECK MATERIAL FOR LOOSE KNOTS' NAILS AND OTHER DEFECTS.
9. REMOVE SHAVINGS ONLY WITH THE POWER OFF.
10. KEEP HANDS AWAY FROM THE TOP SURFACE OF THE BOARD NEAR THE FEED ROLLS.
11. DISCONNECT MACHINE FROM POWER SOURCE WHEN MAKING REPAIRS.
12. BEFORE LEAVING THE MACHINE, MAKE SURE THE WORK AREA IS CLEAN.

## UNPACKING

Remove the wooden crate from around the machine. If you purchased the three phase machine, your planer is shipped complete with motor, motor pulley and belts assembled to the machine. The switch is wired to the left of planer.

## CLEANING

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. This coating may be removed with a soft cloth moistened with kerosene (do not use acetone, gasoline, or lacquer thinner for this purpose). CARE MUST BE TAKEN WHEN CLEANING THE CUTTERHEAD AS THE KNIVES ARE IN THE CUTTERHEAD AND THESE KNIVES ARE VERY SHARP. After cleaning table, cover table surface with a good quality paste wax.

There are four lifting handles, separately furnished in the front and rear parts of the units base mount. All lifting handles are of hidden type. Pull the handles out for use and push them down otherwise. Two of the lifting handles are as shown in Figure 1 (A).

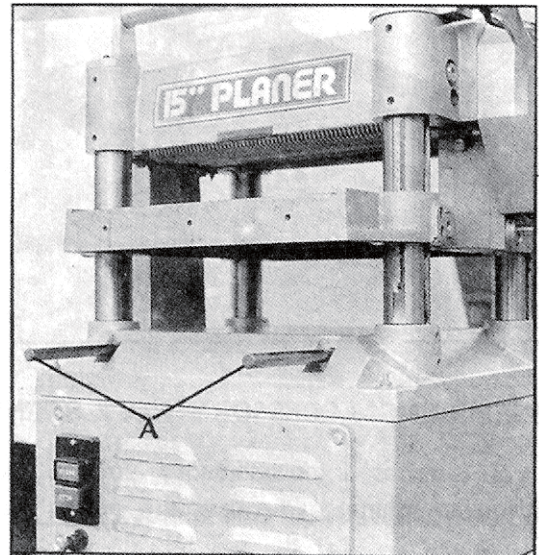


Fig. 1

Both the front and rear part of the machine unit are equipped with infeed rolls (A), of which the screws are long in shape. Before the screws are locked up tightly, adjust the height of infeed rolls in the first place.

The three (B) screws are balancing ones. Once (A) screws are set tightly, the infeed rolls tend to drop down.

In this case, (B) screws must be turned loose until the balancing is secured. If the infeed rolls appear to be tilting, lock up (B) screws until the balancing is secured.

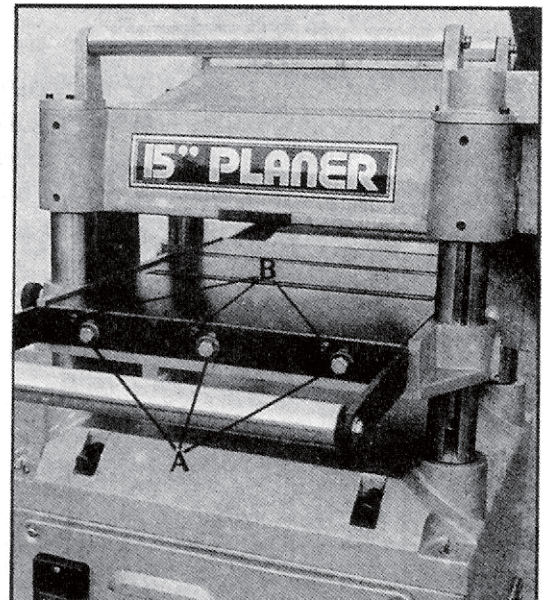


Fig. 2

If the unit you have is too low in position, you may purchase assembling accessory No. 2 steel stand (as shown in Figure 4). The assembled set is as shown in Figure 3.

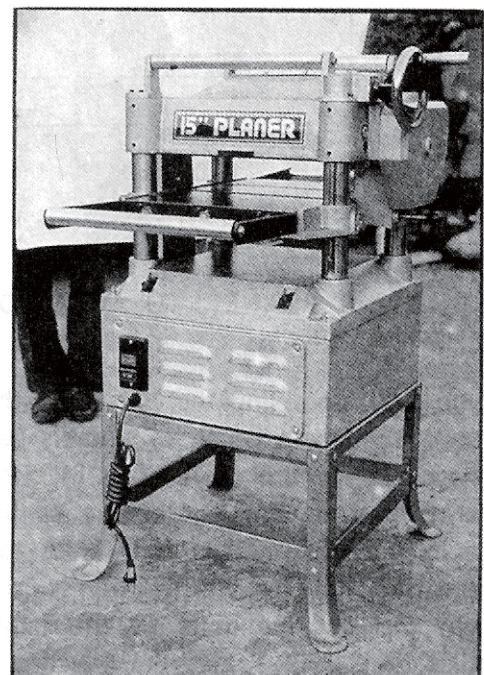


Fig. 3

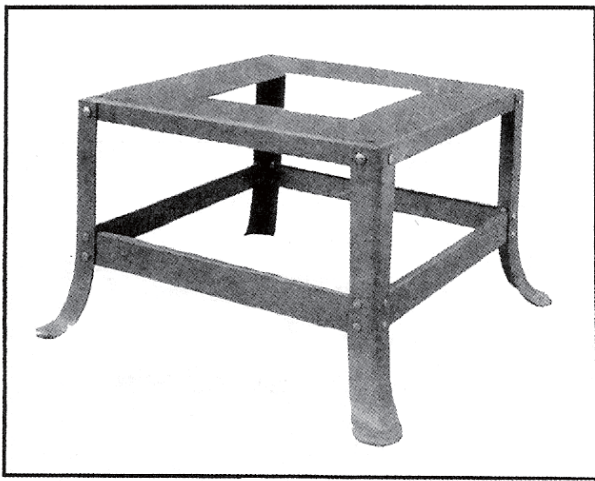


Fig. 4

### ASSEMBLING ACCESSORY NO. 2 STAND

If you purchased the accessory No. 2 Stand for use with your planer, assemble the stand as follows:

1. Assemble the stand as shown in Fig. 4, using the 24 screws and nuts supplied. Only tighten the screws and nuts finger tight at this time.
2. Fig. 5 illustrates the proper relationship of the screws and nuts to the stand. Place the stand on a level surface and tighten the screws and nuts in the following order. First the eight lower tie bar screws and nuts (A), second the eight upper tie bar screws and nuts (B) and third the eight top shelf screws and nuts (C) Fig. 5.

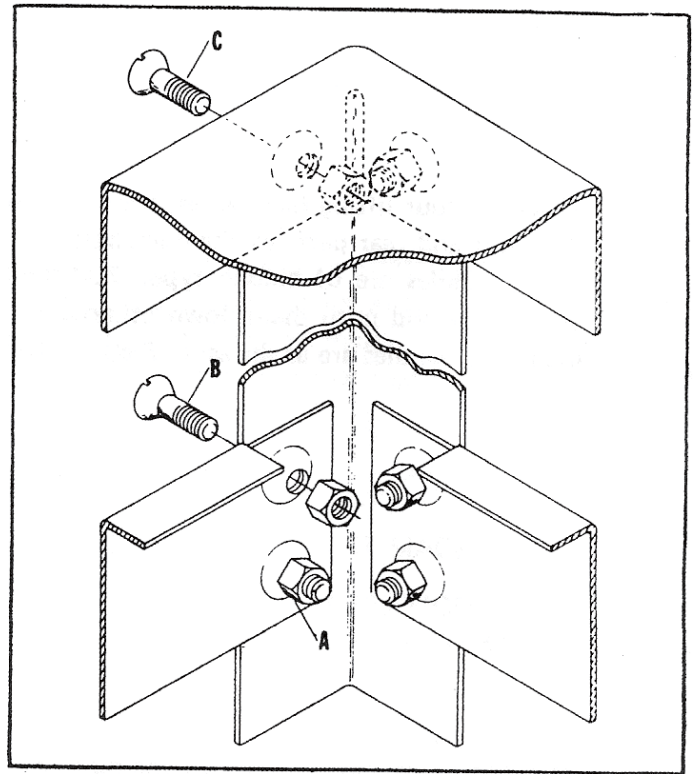


Fig. 5

### WEIGHT

Net weight: 203 kg

Gross weight: 230kg

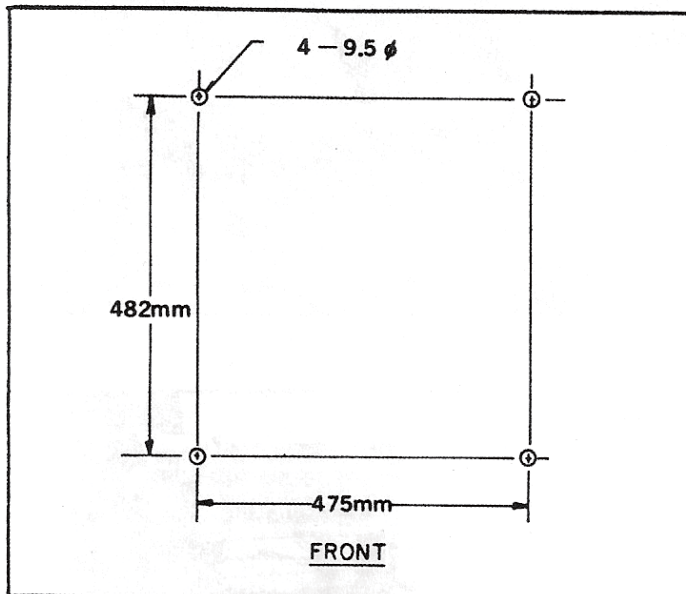


Fig. 6

### ASSEMBLING PLANER TO ACCESSORY STAND OR BENCH

If you are assembling the planer to the accessory Stand or a bench of suitable height, it will be necessary to drill four holes in either stand or bench. Refer to Fig. 6, for the center to center distance and size of the four holes to be drilled. When lifting the planer to position it on the stand or bench, the machine must be lifted by the lifting handles. Fig. 7 illustrates the machine being lifted by the lifting handles using a sling.

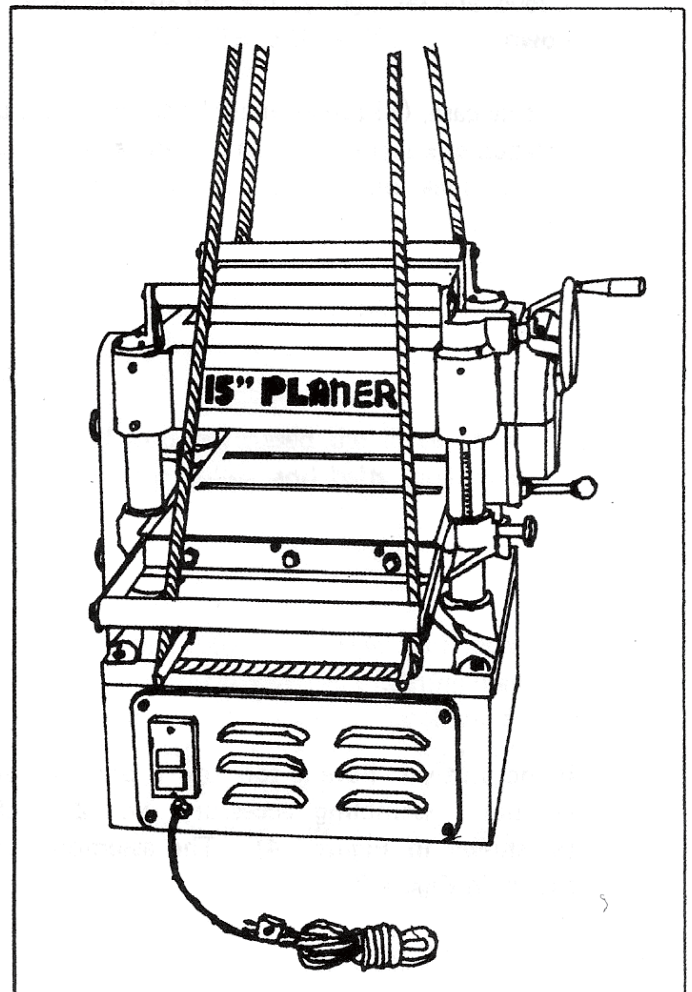


Fig. 7

## ROLL TO ADJUSTING HEIGHT

Using the roll (B) handle (A) forward or backward to adjust the proper height.

## ASSEMBLING SWITCH TO THREE PHASE MACHINE

If you purchased the three phase machine, it is necessary to assemble the switch and switch plate assembly (A) to the front left hand side of the planer, as shown in Fig. 9, using the two screws (B).

## PUSH BUTTON SWITCH CIRCUIT

If you purchased push button switch machine.

As shown in Fig. 43

Power source: A1, 10

Grounding: A3

Motor source: B1, B2

Grounding: B3

## MAGNETIC CONTACTOR CIRCUIT

If you used single phase motor

Power source: A.C.

Motor source: A.C.

Grounding: D

If you used three phases motor

Power source: A.B.C

Motor source: A.B.C.

Grounding: D

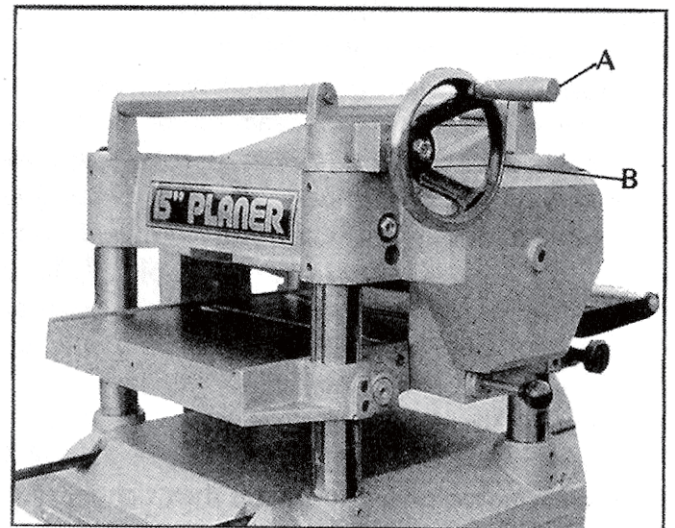


Fig. 8

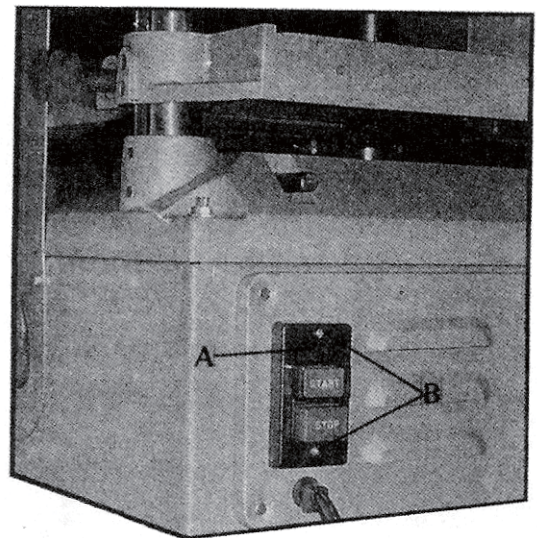


Fig. 9

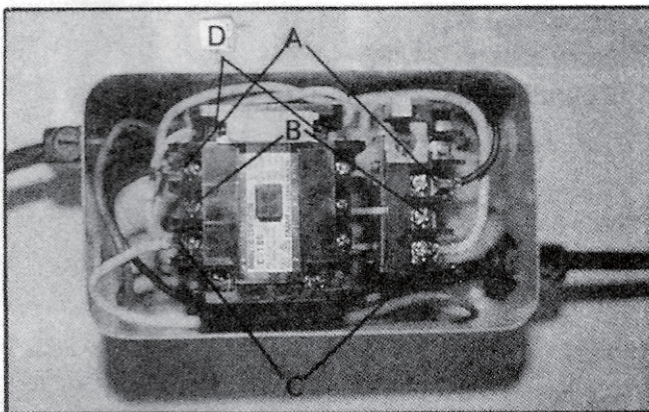


Fig. 44

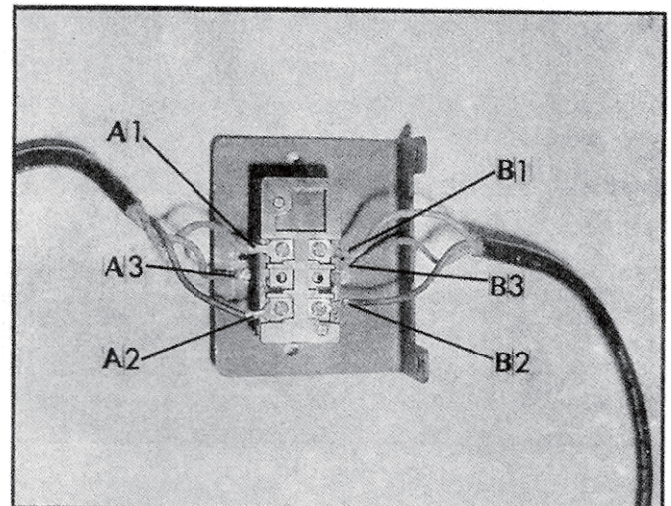
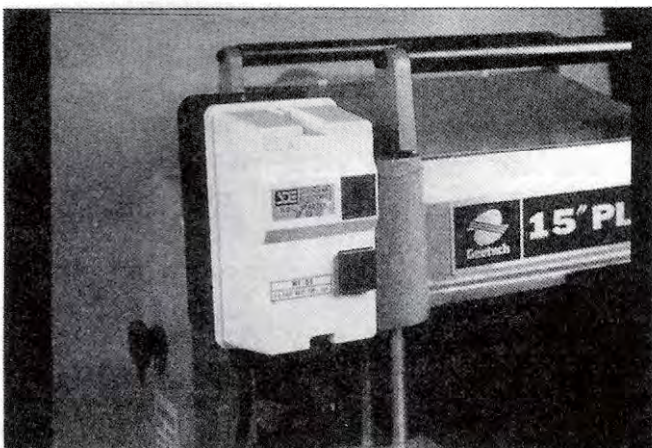


Fig. 10



## ASSEMBLING MOTOR PULLEY, MOTOR AND BELTS TO SINGLE PHASE MACHINE.

1. Assemble motor pulley (H) to motor shaft, as shown in Fig. 12. Make sure key is inserted into keyway of motor shaft and motor pulley, and tighten the pulley lock screw (J) using a spanner. two screws in motor pully, using allen wrench (J).
2. Place motor (K) on motor plate (F), as shown in Fig. 13. Fasten motor(K) to motor plate (F) using the four sets of motor mounting bolts, washers and nuts (L). Do not completely tighten motor mounting nuts and bolts at this point.
3. Using a straight edge, align motor pully (H) to cutter-head pulley (M), As shown in Fig. 14 by sliding motor on motor plate, then tighten motor mounting bolts tightly.
4. To unload two plastic knobs (G) to assemble motor belt. As shown in Fig. 15.

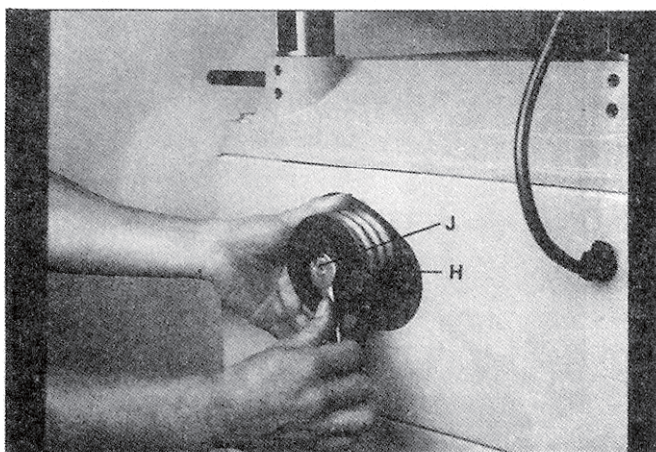


Fig. 12

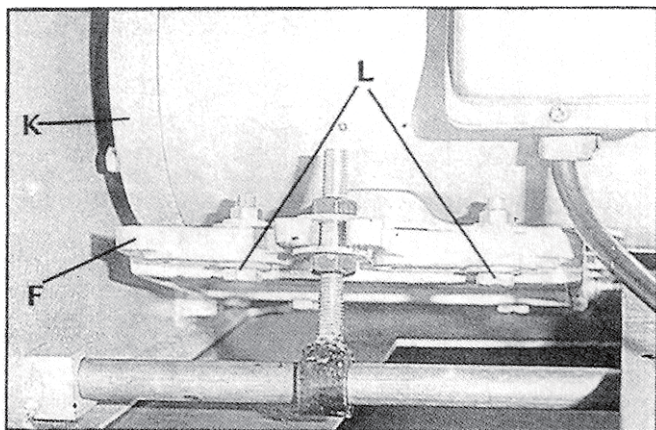


Fig. 13

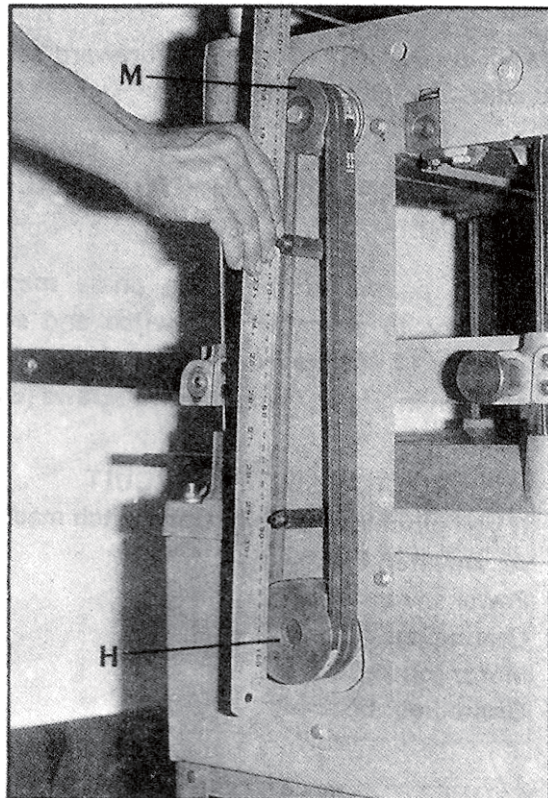


Fig. 14

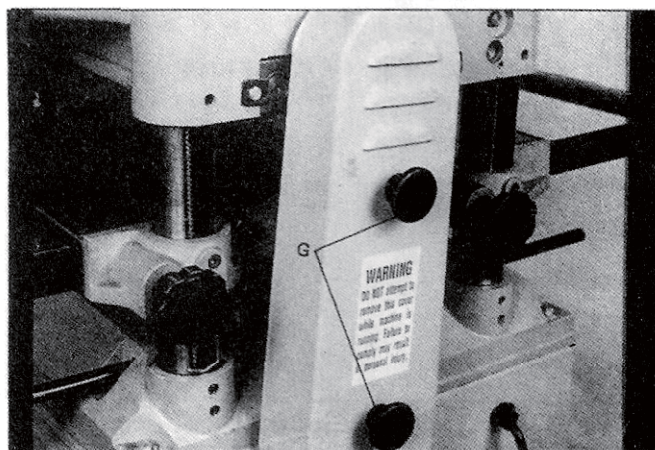


Fig. 15

## DEPTH OF CUT ADJUSTMENT

The depth of cut on your planer is controlled by raising or lowering the head assembly (A) Fig. 17, which contains the cutterhead and feed rolls. The head assembly (A) raises and lowers on four precision ground steel columns. To adjust for depth of cut simply loosen the two head assembly lock knobs (C) and turn the elevating handle (D) Fig. 17. After the desired depth of cut is obtained, lock the two head assembly lock knobs (C) Fig. 17. A combination inch/metric scale (B) Fig. 17, is conveniently located on the right front column for easy reading.

The maximum depth of cut on full width planing with the 3 horsepower, Three Phase motor is 3/16" (4.763mm).

The maximum depth of cut on full width planing with a 2 Horsepower, Single Phase motor is 1/8" (3.175mm). A limiter (A) Fig. 18, is provided on single phase machines to limit the depth of cut on full width planing from 3/16" to 1/8".

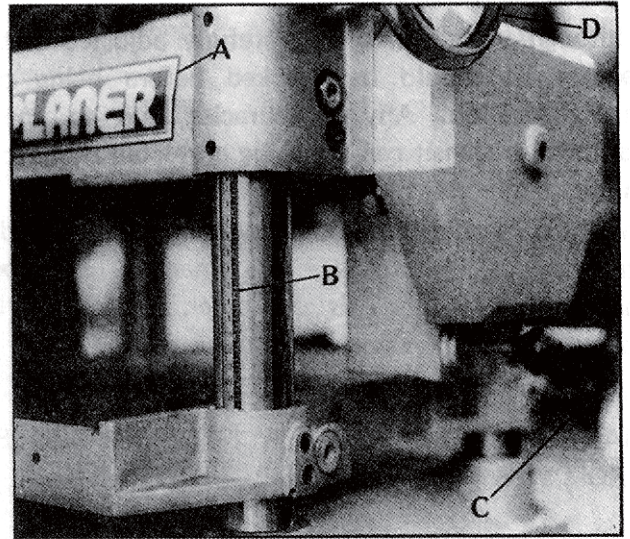
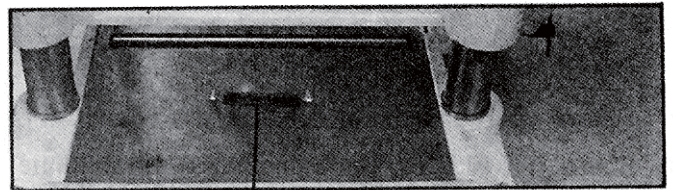


Fig. 17



A Fig. 18

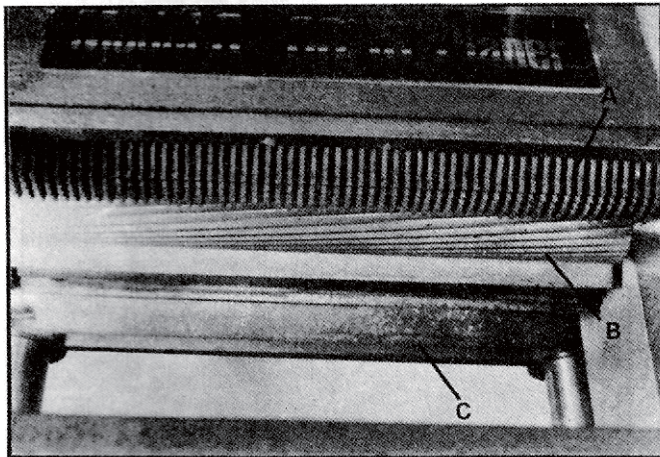


Fig. 19

## ANTI-KICKBACK FINGERS

Anti-kickback fingers (A) Fig. 19, are provided on your planer to prevent kickback. 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 move independently and operate correctly.

## FEED ROLL SPEED CONTROL

Your machine is equipped with a spiral, serrated infeed roll (B) and a outfeed roll (C) Fig. 19. When the feed rolls are engaged, they turn and feed the stock. The feed rolls show automatically when the machine is under heavy load for best planing under all conditions. The feed rolls are driven by a chain and sprocket drive (D) Fig. 20, which takes power directly from the cutterhead through the oil bath gear box (E).

To change the feed. Push in the lever (F) for 20 FPM or pull the lever out for 16 FPM. Set the lever in the neutral position for zero speed.

**CAUTION:** The feed speed should only be changed when the machine is running

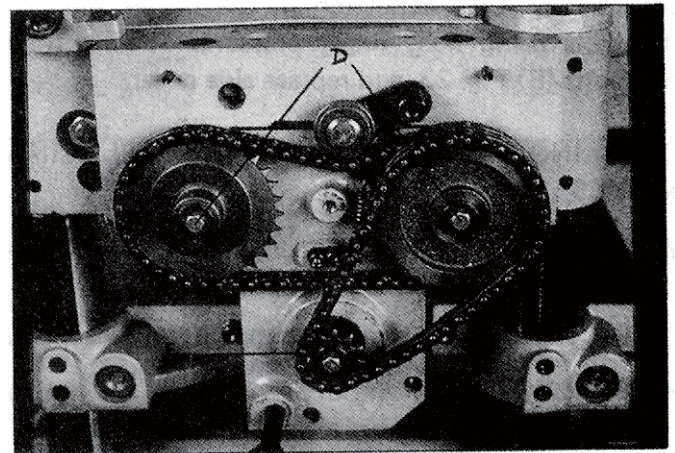


Fig. 20

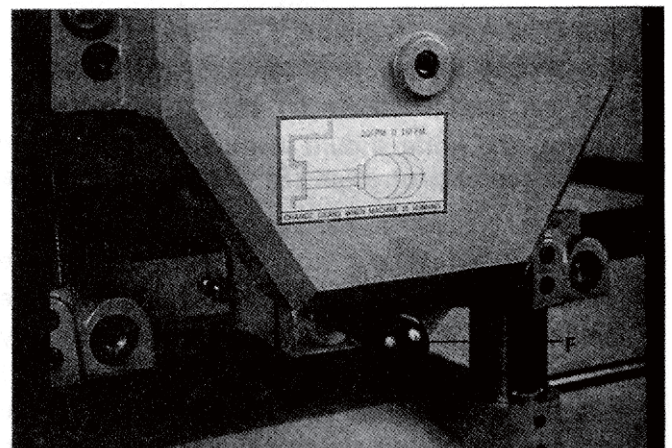


Fig. 21

## ADJUSTMENTS

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 gage and a homemade gage block made of hard-wood. This gage block can be made by following the dimensions shown in Fig. 22.

**WHEN CHECKING ADJUSTMENTS, ALWAYS MAKE SURE THE PLANER IS DISCONNECTED FROM THE POWER SOURCE.**

## ADJUSTING BELT TENSION

To adjust the belt tension on your machine, proceed as follows:

1. Disconnect machine from the power source.
2. Remove belt and pulley cover from the machine.
3. Board (A) Fig. 23, underneath the motor plate as shown.
4. Loosen two bolts (B) Fig. 23, and pry up on the motor 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. Then tighten two bolts (B) Fig. 23, and replace side cover.

## CHECKING, ADJUSTING AND REPLACING KNIVES

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

1. Disconnect the machine from the power source.
2. Remove four screws, three of which are shown at (A) Fig. 24, and remove top cover (B).

**IN CASE THE SHAFT TURN BACKWARD PLEASE CHANGE BETWEEN A AND C.**

4. To check and adjust knives, proceed as follows:
  - A. To CHECK AND ADJUST KNIVES use knife gage (A) Fig. 27, and check all three knives for proper setting as shown. When the gage (A) is placed properly on the cutterhead as shown, the knife should just contact the bottom of the center protrusion (B) Fig. 27, of the gage.
  - B. If an adjustment to one or more of the knives is necessary, slightly loosen the knife locking bars (C) Fig. 27, of all three knives by turning the fifteen knife locking screws (D) into the knife locking bars just enough to relieve stress in the cutterhead and not disturb the setting of the knives.

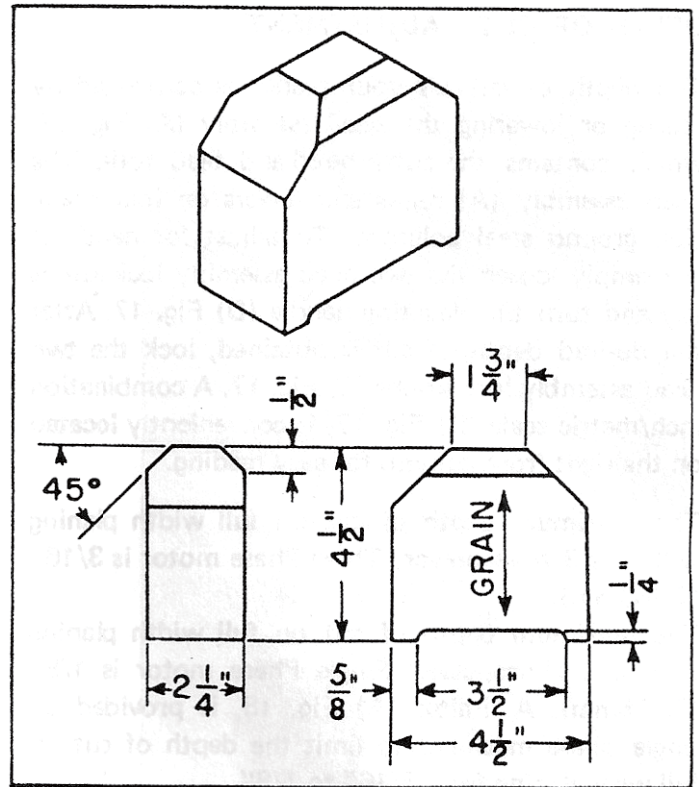


Fig. 22

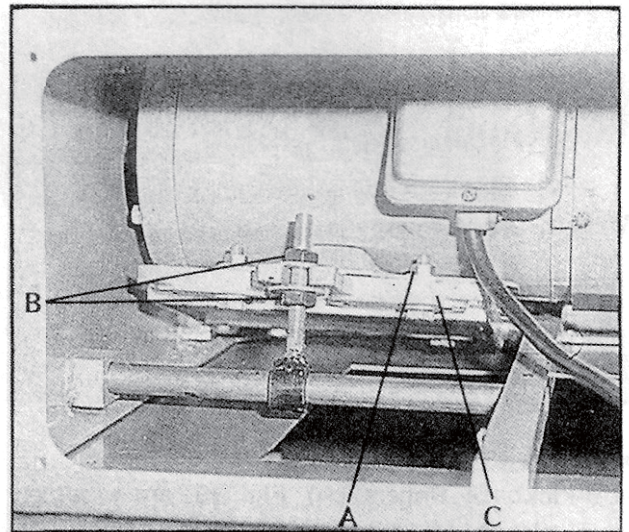


Fig. 23

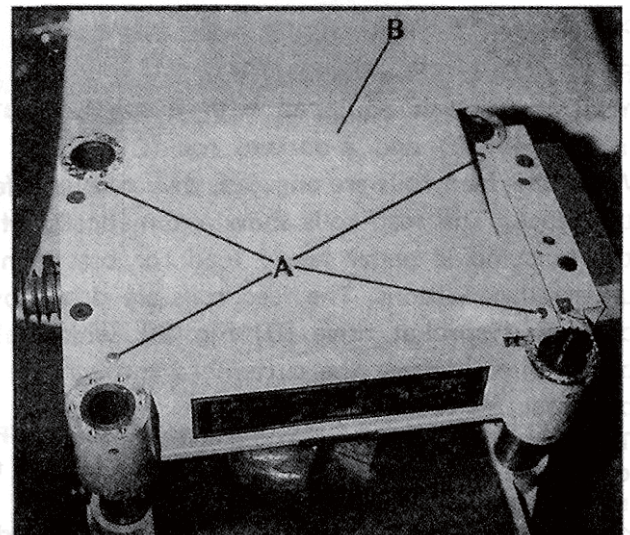


Fig. 24



C. Then, using the knife gage, adjust the knife that must be reset by loosening all five locking screws (D) Fig. 27, by turning them into the knife locking bar. As the knife locking bar becomes loose, lifter springs (E) located under the knife will raise the knife until it comes into contact with the center portion (B) of the gage (A) Fig. 27. Then snug up the knife locking bar by lightly backing out the five screws (D) against the slot. **IMPORTANT: AT THIS TIME, ONLY TIGHTEN THE KNIFE INTO THE SLOT JUST ENOUGH TO HOLD KNIFE INTO POSITION.**

D. If additional knives must be reset, repeat STEP C.

E. After all three knives are set with screws just snug, back out and tighten the five screws (D) Fig. 26 and 27, against the slot starting with the end screws first then the center screws until the knife is securely held in the cutterhead. Tighten 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:

A. To remove knives, loosen the knife locking bar (C) Fig. 27, by turning the five knife locking screws (D) into the knife locking bar (C) and remove the knife locking bar (C), knife (F) and springs (E) located under the knives.

B. Remove the remaining two knives in the same manner.

C. Thoroughly clean the knife slots, knife bars, springs and screws. Check the screws. If the threads appear worn or stripped or if the heads are becoming rounded replace them.

D. Inspect the cutting edge of the knives for nicks or wire edge. Hone the knives slightly using a stone or if the knives are to be sharpened, maintain a cutting angle of 35 degrees as shown in Fig. 27.

E. Insert springs (E), knives (F) and knife locking bars (C), into all three slots in the cutterhead, as shown in Fig. 27. Back out locking screws (D) just enough to hold all three knives in the cutterhead.

F. Place the knife gage (A) over one of the knives, as shown in Fig. 27.

G. While holding down on the knife gage (A) Fig. 27, loosen all five locking screws (D) by turning them into bar (C) until cutting edge of knife (F) comes into contact with the protrusion (B) of gage (A). Then snug up the knife locking bar (C) by slightly backing out the five screws (D) against the slot. **IMPORTANT: AT THIS TIME, ONLY TIGHTEN THE KNIFE INTO THE SLOT JUST ENOUGH TO HOLD THE KNIFE IN POSITION.**

H. Replace and reset the other two knives in the same manner.

J. After all three knives are set with the screws just snug, back out and tighten the five screws (D) Fig. 27; against the slot starting with the end screws first and then the center screws until the knife is securely held in the cutterhead. Tighten the remaining two knives in the same manner.

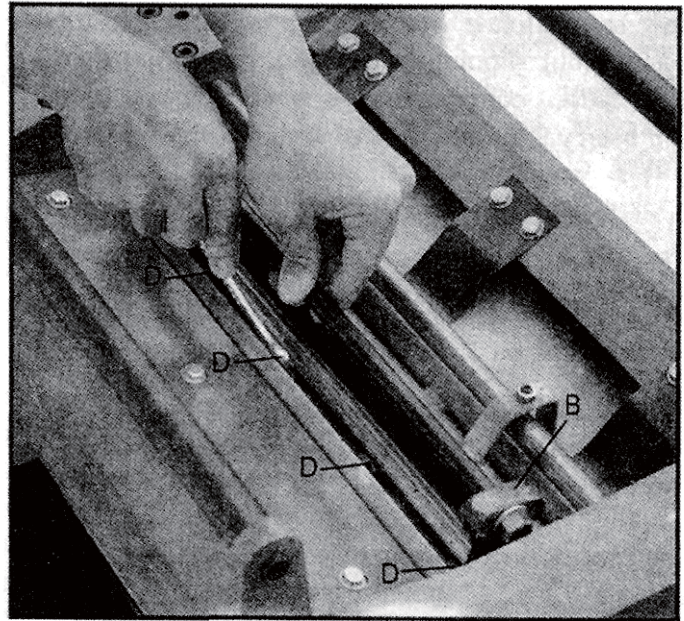


Fig. 26

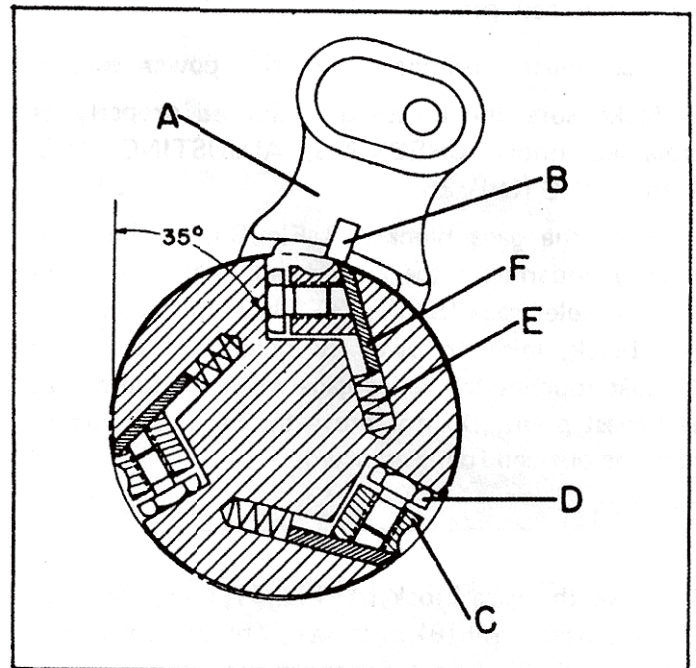


Fig. 27

## ADJUSTING FEED ROLL SPRING TENSION

The infeed roll (A) and outfeed roll (B) Fig. 28, are those parts of your planer that feed the stock while it is being planed. The feed rolls (A) and (B) 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 be equal at both ends of each roll.

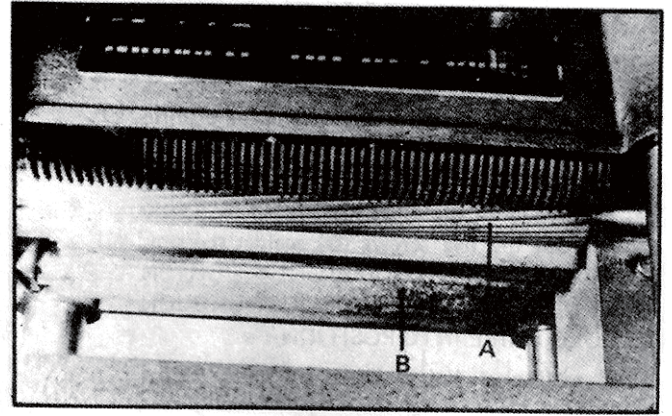


Fig. 28

To adjust the spring tension of the infeed roll, turn screw (C) Fig. 29, and also the screw on the opposite end of the roll.

To adjust spring tension of the outfeed roll, turn screw (D) Fig. 29, and also the screw on the opposite end of the planer.

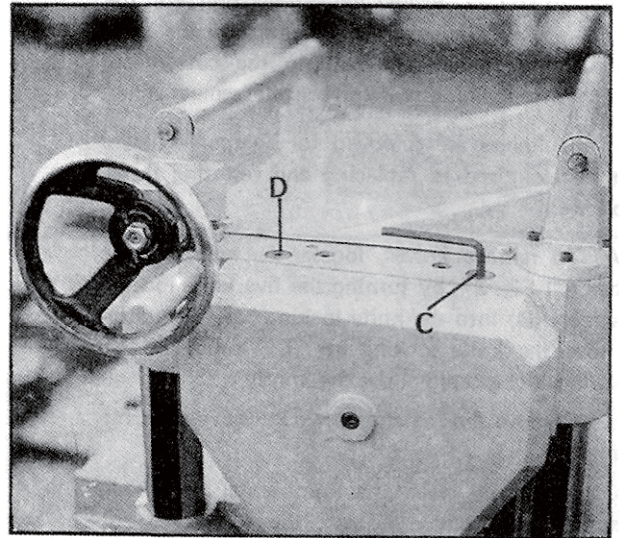


Fig. 29

## ADJUSTING HEIGHT OF OUTFEED ROLL

The outfeed roll is adjusted at the factory to be set 1mm below the cutting circle. To check and adjust the outfeed roll, proceed as follows:

1. Disconnect machine from the power source.
2. Make sure the knives are adjusted properly as explained under CHECKING, ADJUSTING AND REPLACING KNIVES.
3. Place the gage block (A) Fig. 30, on the table directly underneath the cutterhead, as shown. Using a 1mm feeler gage (B) Fig. 30, placed on top of the gage block, raise or lower the head until the knife (C) just touches the feeler gage when the knife is at its lowest point. Do not move the head any further until the outfeed roll is adjusted.
4. Move the gage block (A) Fig. 31, under one end of the outfeed roll (B) as shown. The bottom of the outfeed roll (B) should just touch the top of the gage block (A). If an adjustment to the outfeed roll is necessary, loosen locknut (E) and turn screw (F) until the feed roll just touches the gage block. Then tighten locknut (E) Fig. 31.
5. Check and adjust opposite end of outfeed roll in the same manner.

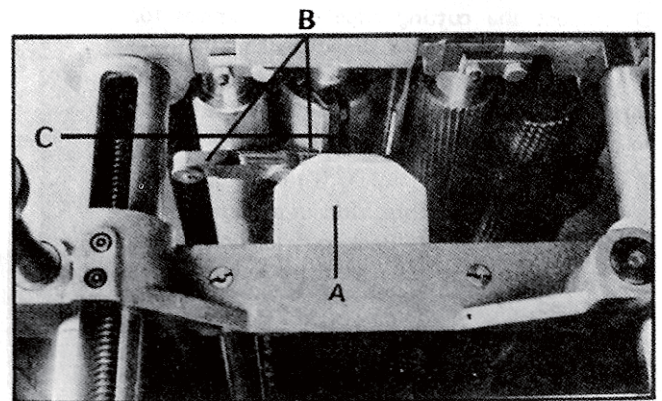


Fig. 30

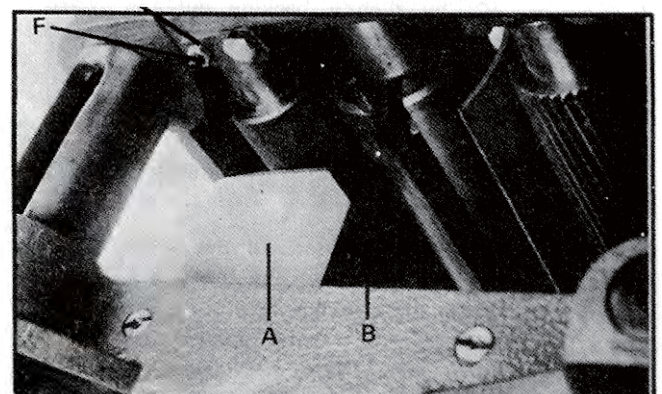


Fig. 31

## ADJUSTING CHIPBREAKER

The chipbreaker is located on top of the planer and extends down around the front of the cutterhead. The chipbreaker raises as stock is fed through and "breaks or curls" the chips the same as a plane iron cap on a hand plane. The bottom of the chipbreaker must be parallel to the knives and set 1mm below the cutting circle. To check and adjust the chipbreaker, proceed as follows:

1. Disconnect machine from the power source.
2. Make certain the knives are adjusted properly as previously explained under CHECKING, ADJUSTING AND REPLACING KNIVES.
3. Place the gage block (A) Fig. 32, on the table directly underneath the cutterhead, as shown. Using a 0.40" feeler gage (B) Fig. 32, placed on top of the gage block, raise or lower the head until the knife (C) just touches the feeler gage when the knife is at its lowest point. Do not move the head any further until the chipbreaker is checked and adjusted if necessary.
4. Move the gage block (A) underneath the chipbreaker (D) as shown in Fig. 33. The bottom of the chipbreaker should just touch the top of the gage block. Check opposite end of chipbreaker in the same manner.
5. If an adjustment to the chipbreaker is necessary, loosen nuts (F) Fig. 34, and turn screws (E) until bottom of chipbreaker just touches gage block. Then tighten nuts (F).

## ADJUSTING TABLE ROLLS

Your planer is supplied with two table rolls (A) Fig. 35, 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 rolls because each type of wood behaves differently. As a general rule, however, when planing rough stock the table rolls should be set HIGH and when planing smooth stock the table rolls should be set LOW.

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

1. Disconnect machine from the power source.
2. Lay a straight edge (B) Fig. 36, across both rolls and turn screws (E) Fig. 35 to raise or lower table rolls (A). Table rolls must also be adjusted on the opposite end of table in the same manner. The table rolls must always be set parallel to the table.

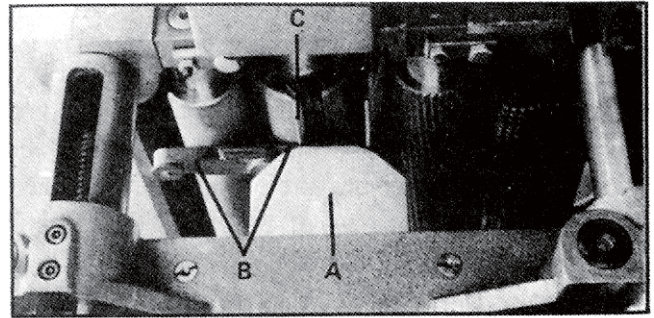


Fig. 32

D

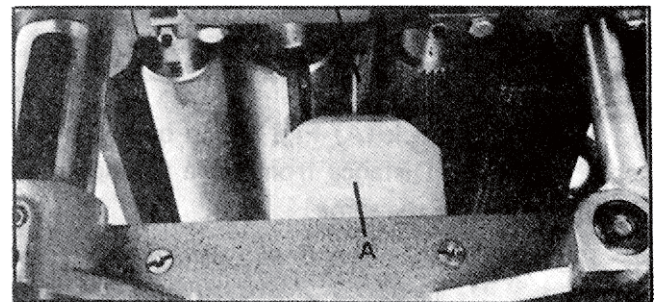


Fig. 33

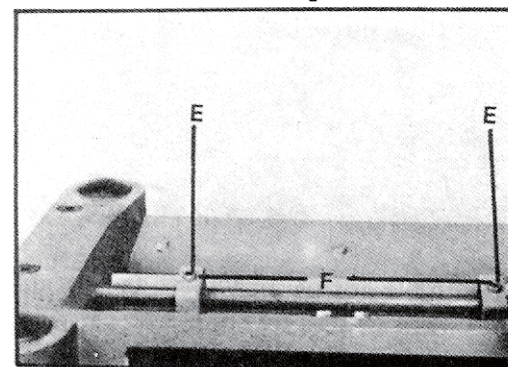


Fig. 34

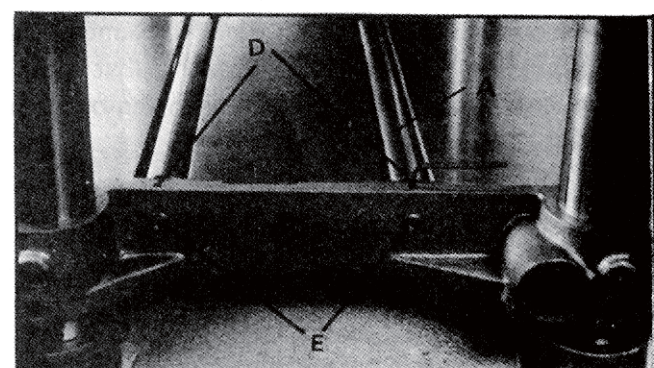


Fig. 35

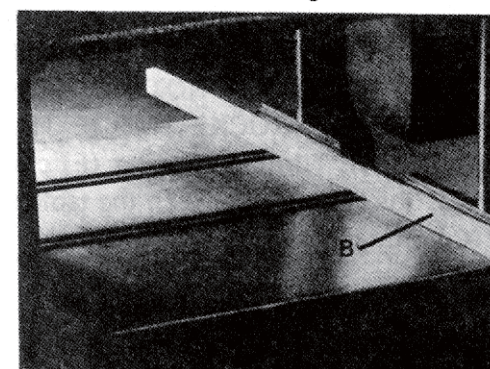
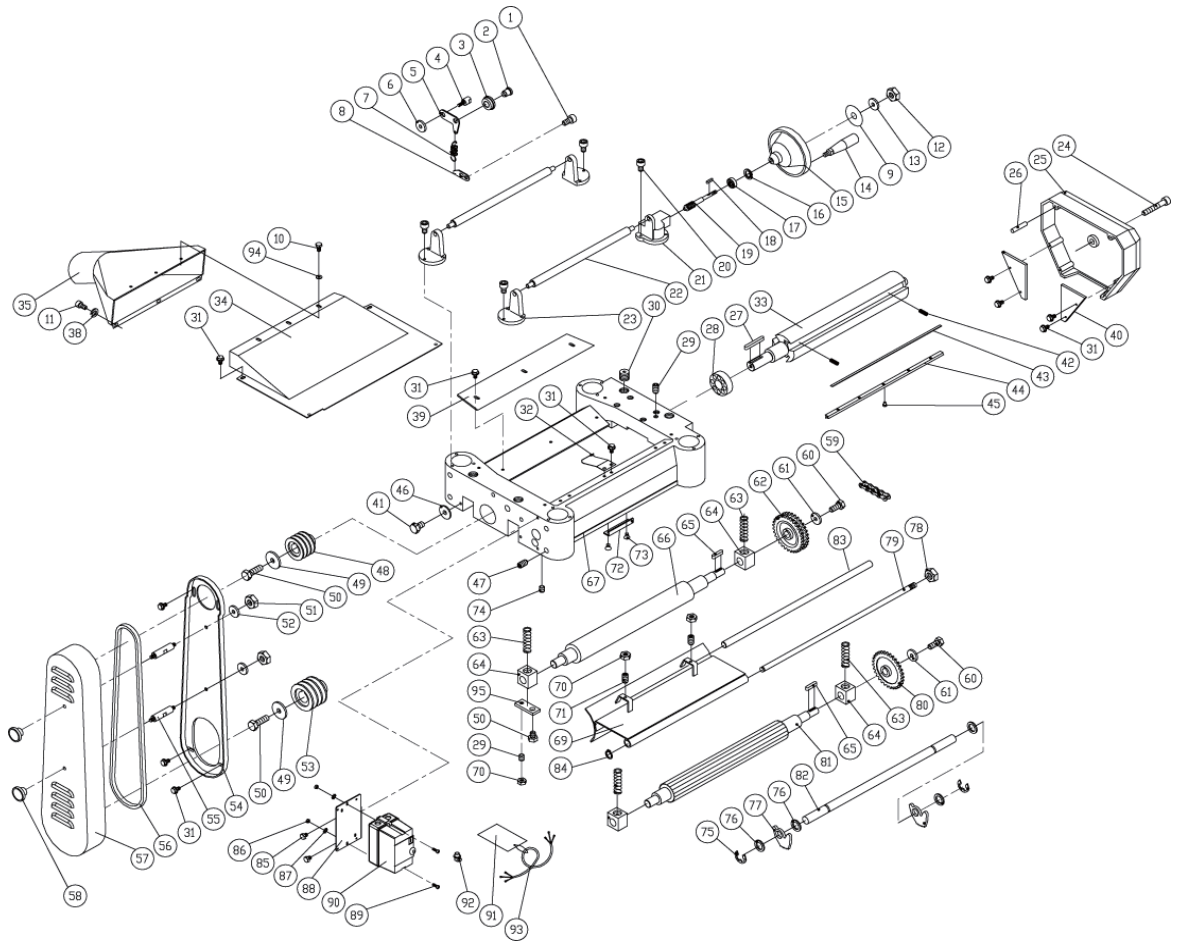


Fig. 36

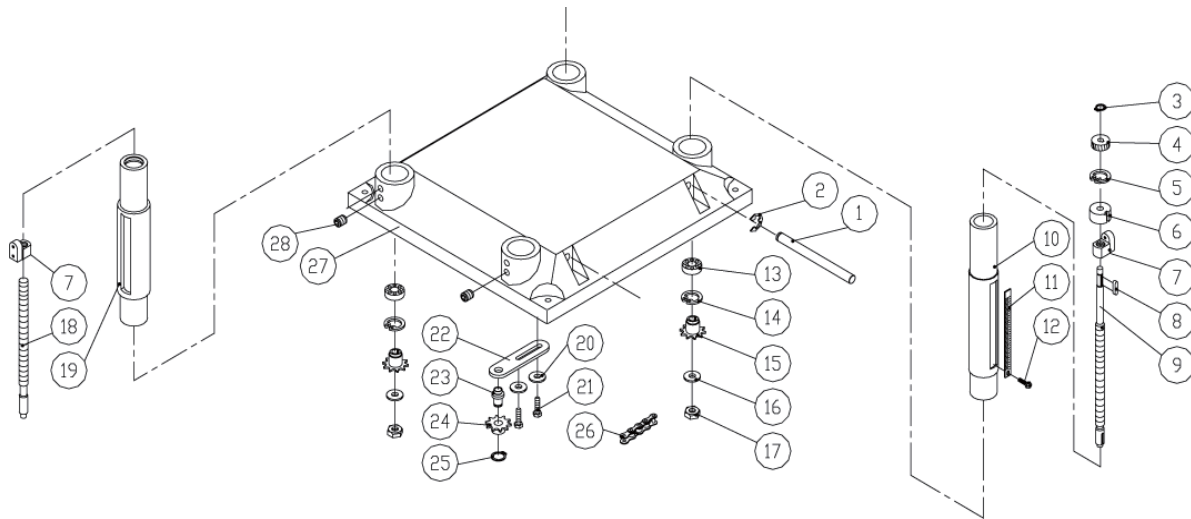


## PARTS LIST FOR MI-31250

ITEM NO.	PART NO.	DESCRIPTION	SPEC.	QTY
1	MI31250-01	BOLT SCK HEAD	M6*1.0P*10	1
2	MI31250-02	SHAFT		1
3	MI31250-03	IDLE PULLEY		1
4	MI31250-04	SHAFT		1
5	MI31250-05	BRACKET		1
6	MI31250-06	WASHER	8.2*22*3	1
7	MI31250-07	SPRING		1
8	MI31250-08	HANGER		1
9	MI31250-09	LABEL DIRECTION		1
10	MI31250-10	BOLT PAN HEAD	M6*1.0P*12	1
11	MI31250-11	BOLT SCK. HEAD	M5*0.8P*10	1
12	MI31250-12	HEX. NUT	M10*1.25P	1
13	MI31250-13	WASHER	10*20*1.5	1
14	MI31250-14	HANDLE		1
15	MI31250-15	HAND WHEEL		1
16	MI31250-16	RETAINING RING	RTW-30	1
17	MI31250-17	BEARING	6200Z	1
18	MI31250-18	KEY	4*4*10	1
19	MI31250-19	BOX WORM GEAR		1
20	MI31250-20	BOLT SCK. HEAD	M6*1.0P*20	12
21	MI31250-21	BOX WORM GEAR		1
22	MI31250-22	ROLLER		2
23	MI31250-23	ROLLER BRACKET		3
24	MI31250-24	BOLT SCK. HEAD	M8*1.25P*50	1
25	MI31250-25	COVER		1
26	MI31250-26	SPRING PIN	6*20	2
27	MI31250-27	KEY	8*8*36	1
28	MI31250-28	BEARING	6205-2NSE	1
29	MI31250-29	SCREW SET	M6*1.0P-16	5
30	MI31250-30	SCREW SET		4
31	MI31250-31	BOLT PAN HEAD	M6*1.0P*12	20
32	MI31250-32	BRACKET		3

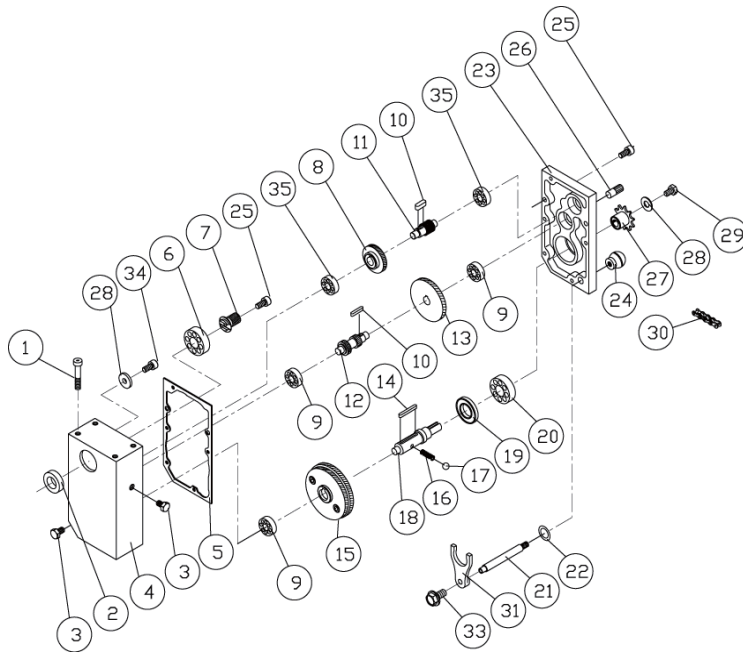
## PARTS LIST FOR MI-31250

33	MI31250-33	CUTTERHEAD		1
33A	MI31250-33A	CUTTERHEAD ASS'Y		1
34	MI31250-34	DUST COVER		1
35	MI31250-35	COLLECTOR HOOD		1
38	MI31250-38	SPRING WASHER	6.1*12.3	3
39	MI31250-39	CHIP DEFLECTOR PLATE		1
40	MI31250-40	PLATE		2
41	MI31250-41	BOLT HEX HEAD	M6*1.0P*12	8
42	MI31250-42	SPRING		6
43	MI31250-43	DOUBLE SIDED KNIVES		3
44	MI31250-44	CUTTERHEAD GIB		3
45	MI31250-45	BOLT, GIB		5
46	MI31250-46	WASHER	8.5*23*2	4
47	MI31250-47	SCREW SET	M10*1.5P-12	8
48	MI31250-48	DRIVEN PULLEY		1
49	MI31250-49	WASHER	8*30*3	2
50	MI31250-50	BOLT HEX HEAD	M8*1.25P-20	6
51	MI31250-51	HEX NUT	5/16**18NC	2
52	MI31250-52	WASHER	8.5*16*1.5	2
53	MI31250-53	MOTOR PULLEY		1
54	MI31250-54	PULLEY GUARD		1
55	MI31250-55	STUD		2
56	MI31250-56	BELT	M59	3
57	MI31250-57	PULLEY COVER		1
58	MI31250-58	NUT		2
59	MI31250-59	CHAIN	0.6B*63	1
60	MI31250-60	BOLT HEX HEAD	M6*1.0P-16	2
61	MI31250-61	WASHER	6.2*20*3	2
62	MI31250-62	SPROCKET		1
63	MI31250-63	SPRING		4
64	MI31250-64	RETAINING BRACKET		4
65	MI31250-65	KEY	5*5*22	2
66	MI31250-66	OUTFEED ROLLER (PU)		1
67	MI31250-67	ROLLER CASE		1
68	MI31250-68	RIVET	2*5	2
69	MI31250-69	CHIP BRACKET		1
70	MI31250-70	NUT HEX. HD	M6*1.0P	2
71	MI31250-71	SCREW SET	M6*1.0P-16	2
72	MI31250-72	DEPTH LIMITER		1
73	MI31250-73	PHILLIPS SCREW	M5-0.8P-12	2
74	MI31250-74	SCREW SET	M8*1.25P-12	2
75	MI31250-75	E-RING	ETW-15	2
76	MI31250-76	SPACER		40
77	MI31250-77	ANTI-KICKBACK PAWL		30
78	MI31250-79	SHAFT		1
79	MI31250-78	NUT, HEX	M12-1.75P	1
80	MI31250-80	SPROCKET		1
81	MI31250-81	INFEED ROLLER		1
82	MI31250-82	SHAFT		1
83	MI31250-83	CHIP DEFLECTOR SHAFT		1
84	MI31250-84	RET, RING	STW-12	1
85	MI31250-85	BOLT PAN HEAD	M6*1.0P-12	2
86	MI31250-86	NUT HEX HEAD	3/16"-24NC	2
87	MI31250-87	WASHER	BW-5	2
88	MI31250-88	SWITCH BOARD		4
89	MI31250-89	SCREW PAN HEAD	3/16"-24NC*1-3/4"	2
90	MI31250-90	SWITCH (CSA)	3HP,220V*60HZ,1PH	1
91	MI31250-91	LABEL DIRECTION		1
92	MI31250-92A	STRAIN RELIEF		2
93	MI31250-93A	POWER SUPPLY CORD	12A/3C*2M	4
94	MI31250-94A	FLAT WASHER		3
	MI31250-HB	HARDWARE BAG		1
	MI31250-HB1	KNIFE SETTING GAUGE ASS'Y		1
95	MI31250-95A	PLATE		1



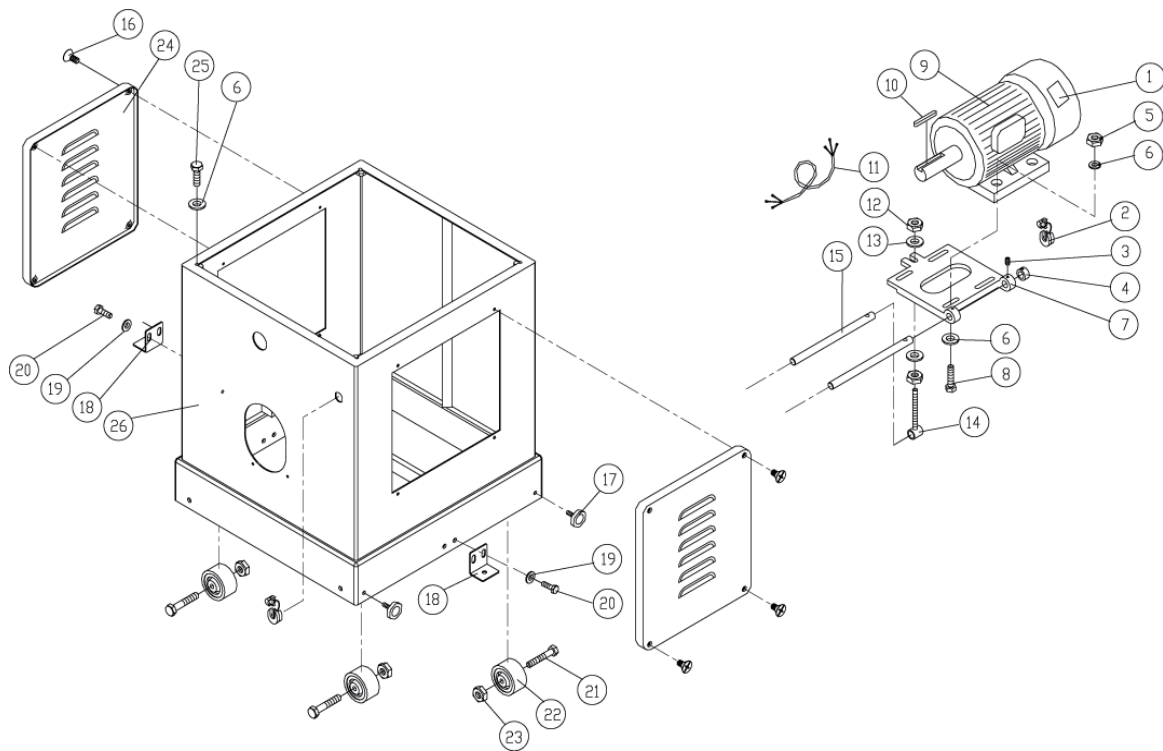
## PARTS LIST FOR MI-31250

ITEM NO.	PART NO.	DESCRIPTION	SPEC.	QTY
1	MI31250-92	BAR		4
2	MI31250-93	E-RING	ETW12	4
3	MI31250-94	RETAINING RING	STW10	1
4	MI31250-95	GEAR		1
5	MI31250-96	INTERNAL RING	RTW38	1
6	MI31250-97	BUSHING		1
7	MI31250-98	LEAD NUT		4
8	MI31250-99	KEY	4X4X10	1
9	MI31250-100	CRANK LEAD SCREW		1
10	MI31250-101	COLUMN		1
11	MI31250-102	SCALE		1
12	MI31250-103	SCREW PAN HD.	M3X0.5PX6	1
13	MI31250-104	BEARING	6202Z(A)	4
14	MI31250-105	INTERNAL RING	RTW35	4
15	MI31250-106	SPROCKET		4
16	MI31250-107	WASHER	3/8"X20X1.5	4
17	MI31250-108	NUT HEX	M10X1.25P	4
18	MI31250-109	LEAD SCREW		3
19	MI31250-110	CRANK CASE COLUMN		3
20	MI31250-111	WASHER	8.2X22X3	2
21	MI31250-112	BOLT HEX. HD.	M8X1.25PX25	2
22	MI31250-113	BRACKET TENSION		1
23	MI31250-114	SHAFT		1
24	MI31250-115	SPROCKET		1
25	MI31250-116	RETAINING RING	STW15	1
26	MI31250-117	CHAIN	#410X134	1
27	MI31250-118	BASE		1
28	MI31250-119	SCREW SET	M10X1.5PX12	8



## PARTS LIST FOR MI-31250

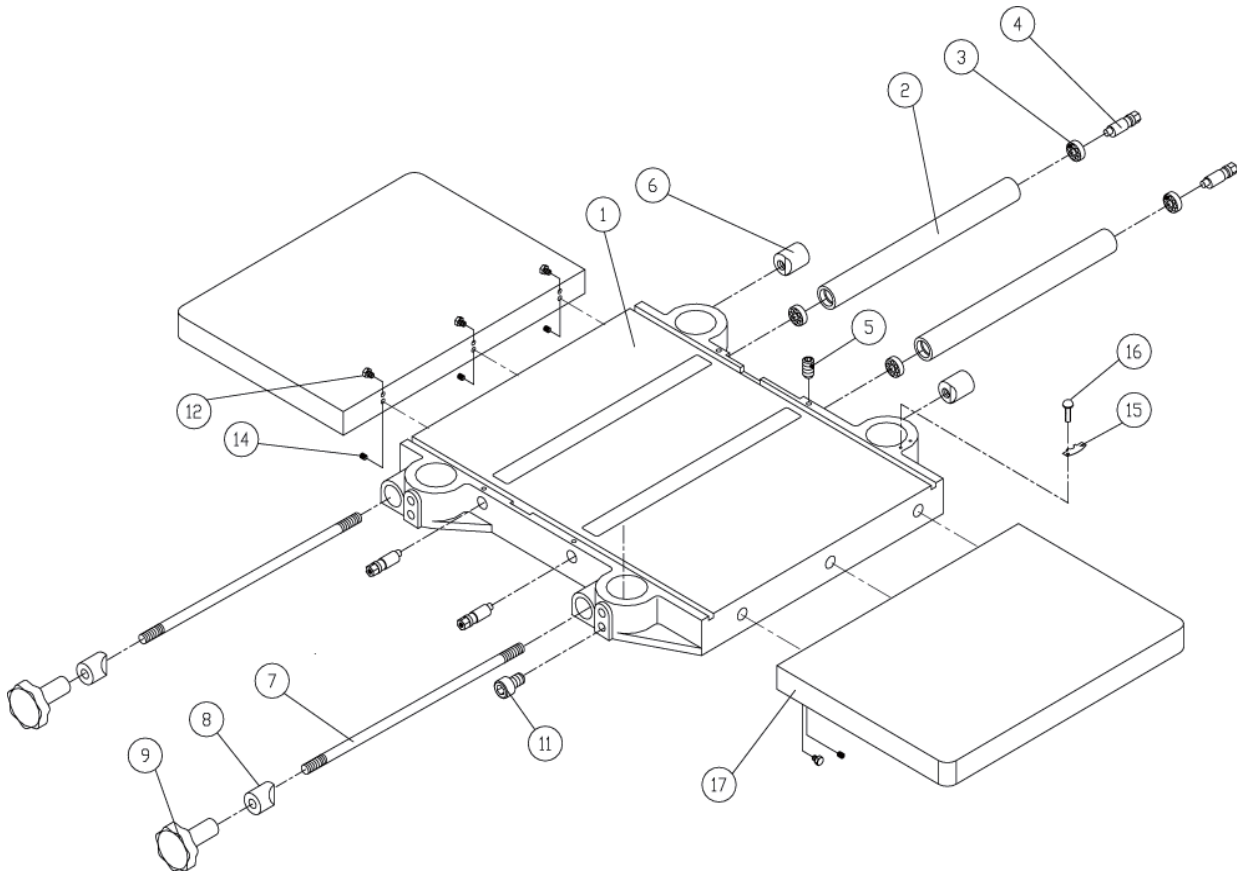
ITEM NO.	PART NO.	DESCRIPTION	SPEC.	QTY
1	MI31250-120	BOLT SOC.HD	M8X1.25PX50	4
2	MI31250-121	SEAL OIL	TC28X40X8	1
3	MI31250-122	PLUG NPT	PT1/4"-19	2
4	MI31250-123	GEAR BOX		1
5	MI31250-124	GASKET		1
6	MI31250-125	BEARING	#6204ZZ	1
7	MI31250-126	HELICAL GEAR		1
8	MI31250-127	GEAR	47t	1
9	MI31250-128	BEARING	#6201(A)	3
10	MI31250-129	KEY	5X5X10	2
11	MI31250-130	SINGLE GEARED SHAFT	18t	1
12	MI31250-131	DOUBLE GEARED SHAFT	18.22	1
13	MI31250-132	GEAR	71t	1
14	MI31250-133	KEY	6X6X40	1
15	MI31250-134	GEAR ASSEMBLY		1
16	MI31250-135	SPRING	ø 0.6	1
17	MI31250-136	STEEL BALL	ø 6	1
18	MI31250-137	GEAR SHAFT		1
19	MI31250-138	SEAL OIL	SC25X47X6	1
20	MI31250-139	BEARING	#6204Z(A)	1
21	MI31250-140	HANDLE CLUTCH		1
22	MI31250-141	O-RING	P12	1
23	MI31250-142	COVER GEAR BOX		1
24	MI31250-143	KNOB	AE32X3/8"-16NC	1
25	MI31250-144	HEX. HD. BOLT	M6X1.0PX25	6
26	MI31250-145	PIN	8X20	2
27	MI31250-146	SPROCKET	12t	1
28	MI31250-147	WASHER	6.2X20X3	2
29	MI31250-148	HEX. HD. BOLT	M6X1.0PX16	1
30	MI31250-149	CHAIN	#06BX47	1
31	MI31250-150	CLUTCH		1
32	MI31250-151	WASHER	1/4"X13X0.8	1
33	MI31250-152	HEX. HD. BOLT	M6X1.0PX12	1
34	MI31250-153	SOC.HD. BOLT	M6X1.0PX12	1
35	MI31250-154	BEARING	#6201	2



## PARTS LIST FOR MI-31250

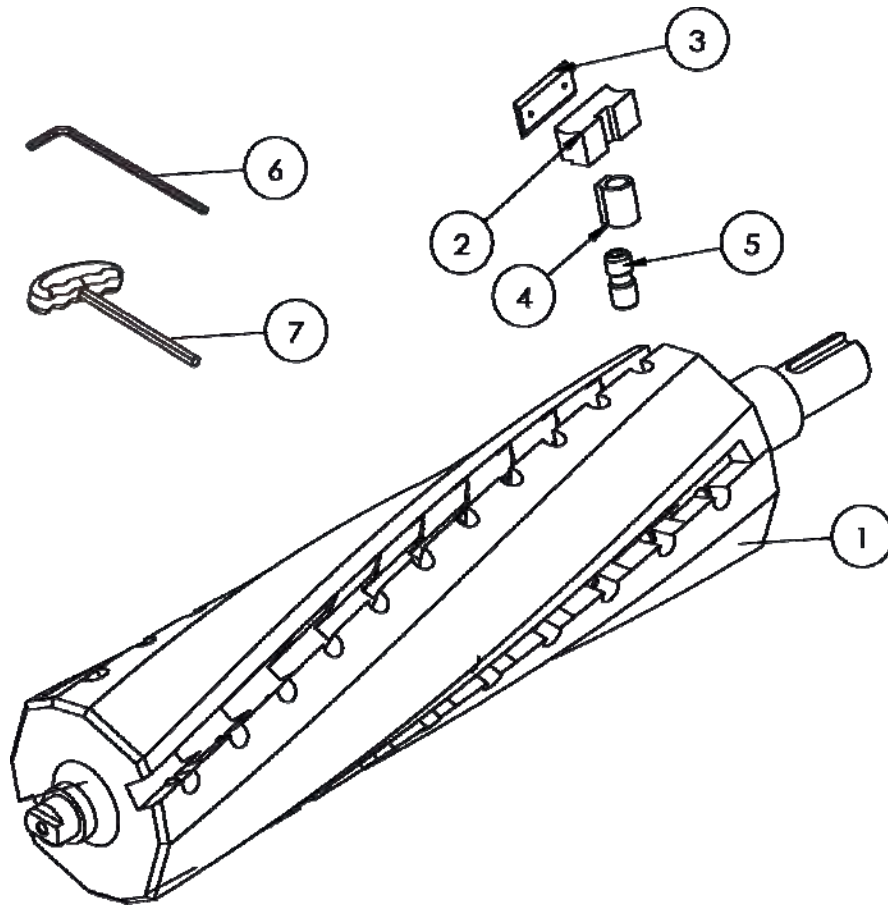
ITEM NO.	PART NO.	DESCRIPTION	SPEC.	QTY
1	MI31250-155	MOTOR LABEL	(CSA)	1
2	MI31250-156	STRAIN RELIEF	SB8R-3	2
3	MI31250-157	SCREW SET	M6X1.0PX12	4
4	MI31250-158	SPACER		1
5	MI31250-159	HEX.NUT	M8X1.25P	4
6	MI31250-160	WASHER	5/16"X23X2	12
7	MI31250-161	MOTOR PLATE		1
8	MI31250-162	HEX. HD. BOLT	M8X1.25PX30	4
9	MI31250-163	MOTOR	220V	1
10	MI31250-164	KEY	5X5X30	1
11	MI31250-165	MOTOR CORD	4A/3CX1.4mX1R2Y1R2	1
12	MI31250-166	HEX. NUT	M10X1.25P	2
13	MI31250-167	WASHER	1/2"X28X3	2
14	MI31250-168	TENSION BOLT ASSEMBLY		1
	MI31250-169	TENSION BOLT	M10X1.25PX100	1
	MI31250-170	RETAINER	16.5X21.7X25	1
15	MI31250-171	PIVOT BAR		2
16	MI31250-172	FLAT HD. SCREW	M6X1.0X12	8
17	MI31250-173	LOCK WHEEL	38X5/16"-18NCX3/4	2
18	MI31250-174	ANGLE SET STIFFENING PLATE		2
19	MI31250-175	WASHER	3/8"X20X15	4
20	MI31250-176	HEX. HD. BOLT	3/8"-16NCX3/8"	4
21	MI31250-177	HEX. HD. BOLT	3/8"-16NCX2-1/2"	4
22	MI31250-178	WHEEL		4
23	MI31250-179	LOCKING NUT	3/8"-16NC	4
24	MI31250-180	DOOR		2
25	MI31250-181	HEX. HD. BOLT	M8X1.25PX40	4
26	MI31250-182	CABINET		1





## PARTS LIST FOR MI-31250

ITEM NO.	PART NO.	DESCRIPTION	SPEC.	QTY
1	MI31250-183	TABLE		1
2	MI31250-184	TABLE ROLLER		2
3	MI31250-185	BEARING		4
4	MI31250-186	ECCENTRIC ADJUSTER		4
5	MI31250-187	SCREW SET	M6X1.0PX12	4
6	MI31250-188	NUT LOCK	M12X1.75P	2
7	MI31250-189	SHAFT THREADED		2
8	MI31250-190	BUSHING LOCK		2
9	MI31250-191	KNOB	M12X1.75P	2
11	MI31250-192	ROLLER ASS'Y		
12	MI31250-199	SOC.HD. BOLT	M6X1.0PX20	8
13	MI31250-200	HEX. HD. BOLT	M8X1.25PX20	6
14	MI31250-202	SET SCREW	M8X1.25PX12	6
15	MI31250-203	INDICATOR		1
16	MI31250-204	RIVET	2X5	2
17	MI31250-205	EXTENSION TABLE		2



### PARTS LIST FOR MI-31250

ITEM NO.	PART NO.	DESCRIPTION	SPEC.	QTY
1	MI31250-206	Cutter head body		1
2	MI31250-207	Gib		42
3	MI31250-208	Blade (normal)		42
4	MI31250-209	Special nut		42
5	MI31250-210	Special bolt		42
6	MI31250-211	Allen key (L)	5mm	1
7	MI31250-212	Allen key (T)	5mm	2