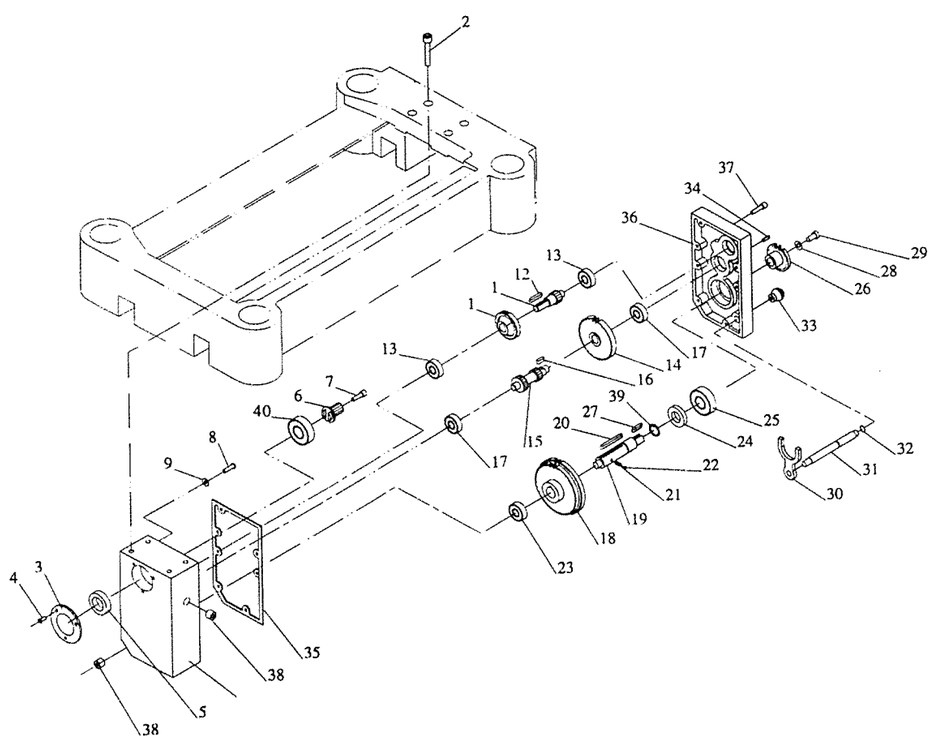
15″ Precision Planer

Instruction Manual

INDEX

GEAR BOX

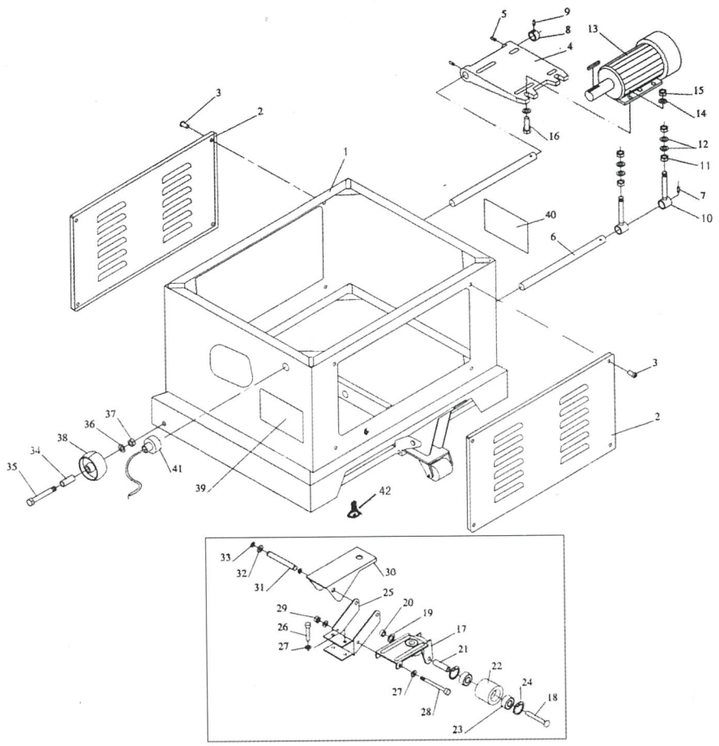
No.	Description	Q'ty	Remark	No.	Description	Q'ty	Remark
1	Gear Box	1		21	Spring	1	
2	Hex Soc Hd Scr	4	M8x50	22	Ball	1	4
3	Flange Cover	1		23	Bearing	1	12x32x10
4	Hex Soc Hd Scr	3	M5x12	24	Bearing	1	20x47x14
5	Oil Seal	1	SG25x40x10	25	Oil Seal	1	SG20x35x7
6	Gear	1		26	Sprocket	1	
7	Hex Soc Hd Scr	1	M6x20	27	Key	1	C5x16
8	Pan Hd Scr	1	M6x8	28	Flat Washer	1	
9	Flat Washer	1	6	29	Hex Hd. Scr	1	M8x16
10	Gear	1		30	Clutch	1	
11	Shaft	1		31	Handle	1	
12	Key	1	C5x14	32	Oil Ring	1	12x1.9
13	Bearing	2	12x32x10	33	Knob	1	
14	Gear	1		34	Pin	2	5x10
15	Shaft	1		35	Packing Piece	1	
16	Key	1	C5x10	36	Gear Box Cover	1	
17	Bearing	2	12x32x10	37	Hex Hd. Scr	5	M6x25
18	Gear	1		38	Oil Plug	2	
19	Shaft	1		39	Retaining Ring	1	20
20	Key	1	5x50	40	Bearing	1	20x47x14



BASE

No.	Description	Q'ty	Remark
1	Enclosed Stand	1	
2	Cover	1	
3	Cross Hd Sink Scr	8	M6x20
4	Motor Plate	1	
5	Hex Soc Hd Scr	2	M6x12
6	Plate Connecting Rod	2	
7	Hex Soc Hd Scr	2	M8x12
8	Collar	1	
9	Hex Soc Hd Scr	1	M6x8
10	Adjust Bolt	2	
11	Hex Nut	4	M12
12	Flat Washer	4	12
13	Motor	1	
14	Washer	8	
15	Hex Nut	4	M8x12
16	Hex Bolt	4	M8x45
17	Trolley Universal Kit	1	
18	Special Bolt	1	
19	Washer	1	
20	Hex Nut	1	
21	Sleeve	1	

No.	Description	Q'ty	Remark
22	Trolley Wheel	1	
23	Bearing	2	15x35x11
24	Retaining Ring	2	Φ35
25	Bracket	1	
26	Hex Bolt	2	M8x50
27	Flat Washer	4	Φ8
28	Hex Bolt	1	M8x100
29	Hex Nut	1	M8
30	Treadle	1	
31	Shaft	1	
32	Flat Washer	2	Φ12
33	Retaining Ring	2	Φ9
34	Sleeve	2	
35	Hex Bolt	2	M8x65
36	Flat Washer	4	Φ8
37	Hex Nut	2	M8
38	Universal Pulley	2	
39	Waring Label	1	
40	Label	1	
41	Relief Bushing	1	
42	Rubber Feet	2	



MACHINE DATA OF THE 15″ PRECISION PLANER

MOTOR.....230V, 415V, 50/60HZ.....3HP

Cutting Capacity:

Length of Unbutted Stock.....Minimum.....6.74″ (171mm)

Width of Stock.....Maximum.....15″ (380mm)

Thickness of Stock.....Maximum.....8″ (204mm)

Planing Depth.....Width of Workpiece 15″ (380mm).....0.12″ max (3mm)

Feed Rate.....16 fpm/30 fpm (5mpm/9mpm)

Cutterhead:

Number of Knives.....3

Diameter.....3″ (76mm)

Speed.....5,000 RPM

Cuts Per Minute.....15,000

Feed Rolls:

Spiral Infeed Rolls.....2″ Dia.(50.08mm)

Table Bed Rolls (2). .....Adjustable

Table Size.....20″ x15″ (508x380mm)

Overall Dimensions:

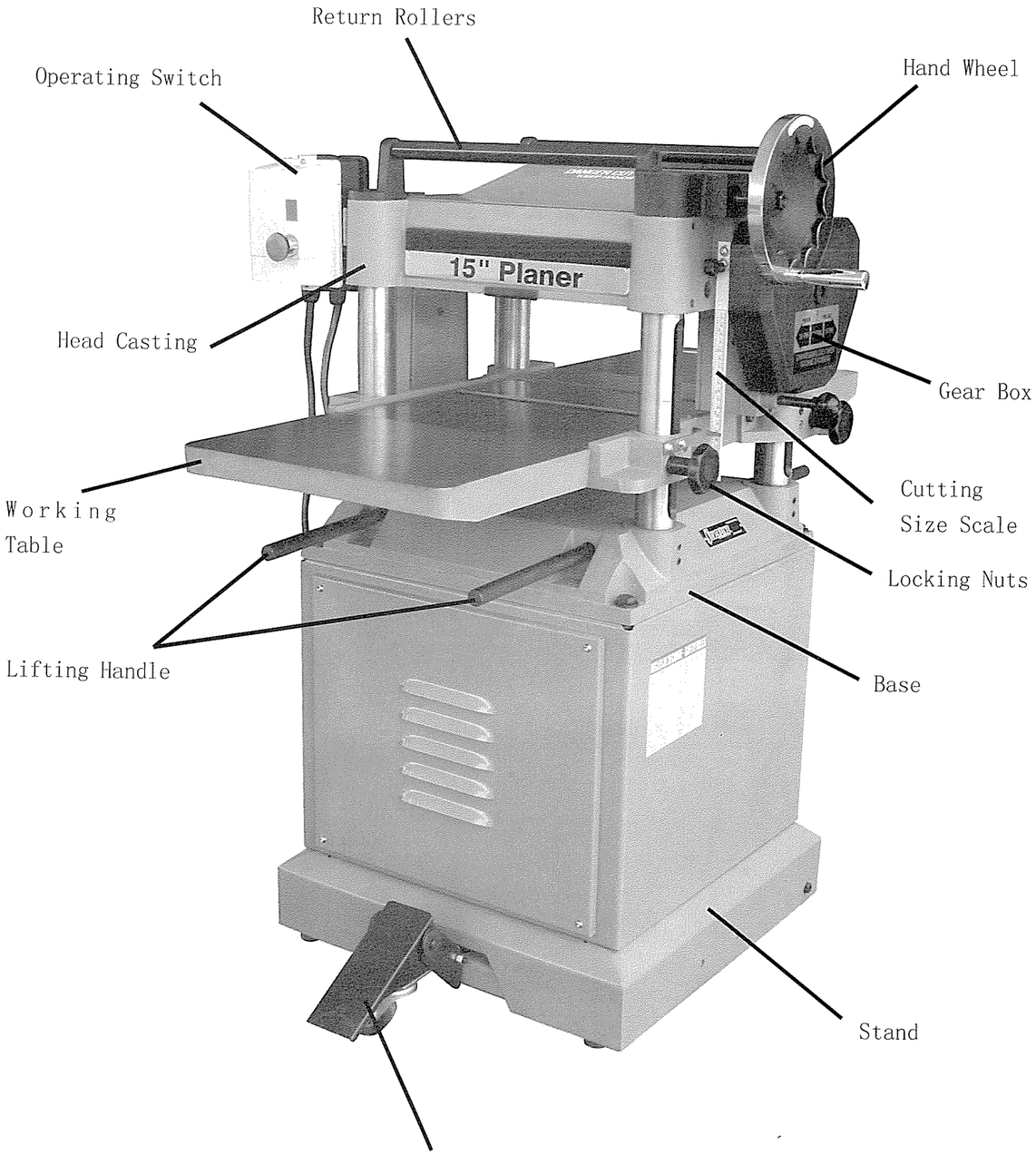
Length.....42″ (1066mm)

Width.....30″ (765mm)

Height.....43″ (1090mm)

Packing Size (LxWxH).....30″ x29.5″ x46.2″ (790x750x1175mm)

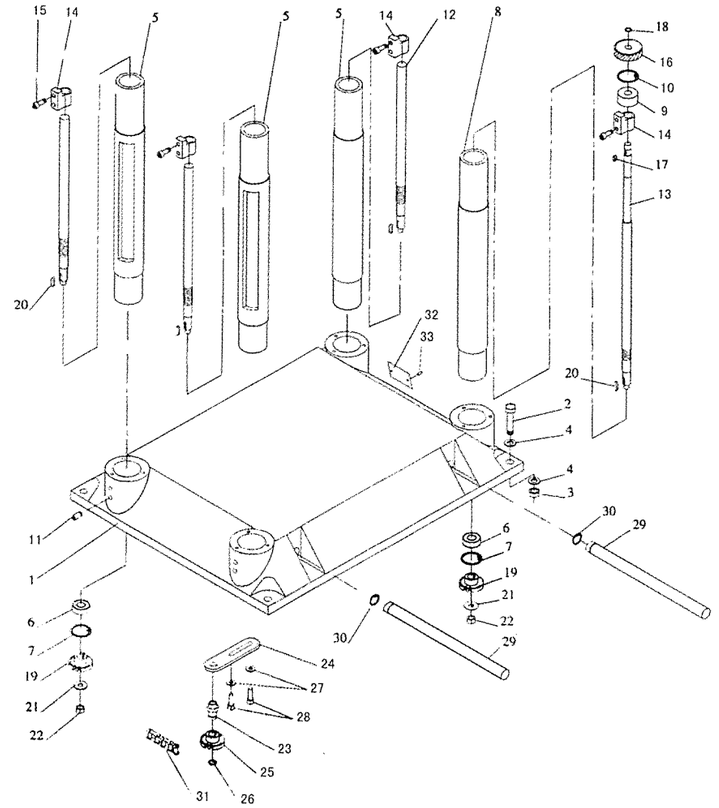
15" PRECISION PLANER



COLUMN

No.	Description	Q'ty	Remark
1	Base	1	
2	Hex Bolt	4	M12x45
3	Hex Nut	4	M12
4	Flat Washer	8	ϕ12
5	Column	3	
6	Bearing	4	15x42x13
7	Retaining Ring	4	ϕ42
8	Column	1	
9	Bushing	1	
10	Retaining Ring	1	ϕ40
11	Set Scr	16	
12	Lead Bolt	3	
13	Lead Bolt	1	
14	Nut		
15	Hex Soc Cheese Hd Scr	8	M6x20
16	Gear	1	
17	Key	1	4x12

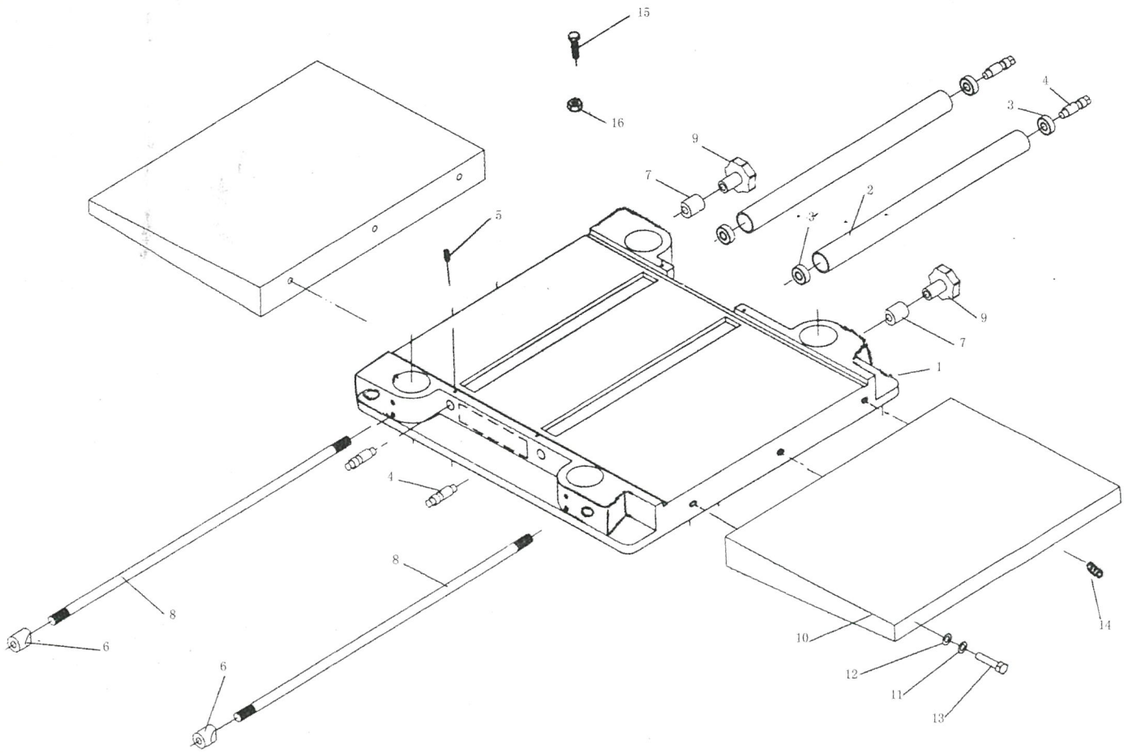
No.	Description	Q'ty	Remark
18	Retaining Ring	1	ϕ12
19	Sprocket	4	
20	Key	4	5x16
21	Flat Washer		
22	Hex Nut	4	M10
23	Shaft	1	
24	Bracket	1	
25	Sprocket	1	
26	Retaining Ring	1	ϕ15
27	Flat Washer	1	
28	Hex Bolt	2	M8x20
29	Crane Post	4	
30	Retaining Ring	4	ϕ15
31	Chain	1	12.7ax134
32	Nameplate	1	
33	Rivet	2	2x4



TABLE

No.	Description	Q'ty	Remark
1	Intermediate Table	1	
2	Roller	2	
3	Bearing	4	8x22x7
4	Eccentric Shaft	4	
5	Hex Soc Hd Set Scr	4	M6x16
6	Lock Bar	2	
7	Locksmith	2	
8	Lock Bolt	2	

No.	Description	Q'ty	Remark
9	Knob	2	
10	Table Casting Extension	2	
11	Lock Washer	6	ϕ8
12	Flat Washer	6	ϕ8
13	Hex Bolt	6	M8x30
14	Hex Soc Hd Set Scr	4	M8x20
15	Hex Bolt	1	M10x60
16	Hex Nut	1	M10



GENERAL SAFETY INSTRUCTIONS

1. **KEEP GUARDS IN PLACE.**
   Safety guards must be kept in place and in working order.
2. **REMOVE ADJUSTING KEYS AND WRENCHES.**
   Before turning on machine, check to see that the keys, chucks and adjusting wrenches are removed from the tool.
3. **REDUCE THE RISK OF UNINTENTIONAL STARTING.**
   Make sure switch is in the OFF position before plugging in the tool.
4. **DO NOT FORCE TOOLS.**
   They will do a job better and safer at the rate for which they were designed.
5. **USE RIGHT TOOL.**
   Do not force a tool or an attachment to do a job for which it was not designed.
6. **SECURE WORK.**
   Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tools.
7. **MAINTAIN TOOLS WITH CARE.**
   Keep tools sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
8. **DISCONNECT TOOLS FROM POWER.**
   Before servicing, or when changing accessories such as bits, blades, cutters etc., disconnect from power.
9. **USE RECOMMENDED ACCESSORIES.**
   Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injuries.
10. **CHECK DAMAGED PARTS.**
    Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect the tools operation. A guard or other part that is damaged should be properly repaired or replaced.
11. **TURN POWER OFF. NEVER LEAVE TOOL RUNNING UNATTENDED.**
    Do not leave tool until it comes to a complete stop.
12. **KEEP WORK AREA CLEAN.**
    Cluttered areas and benches invite accidents.
13. **DO NOT USE IN DANGEROUS ENVIRONMENT.**
    Do not use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
14. **KEEP CHILDREN AWAY.**
    Children and all visitors should be kept at a safe distance from the work area.
15. **MAKE WORKSHOP CHILD PROOF.**
    Use padlocks, master switches, and remove starter keys.
16. **WEAR PROPER APPAREL.**
    Loose clothing, gloves, neckties, rings, bracelets or other jewelry may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
17. **ALWAYS USE SAFETY GLASSES AND DUST MASKES.**
    Use face or dust mask if cutting operation is dusty. Every day eyeglasses only have impact resistant lenses, they ARE NOT safety glasses.
18. **DO NOT OVERREACH.**
    Keep proper footing and balance at all times.
19. **NEVER STAND ON TOOL.**
    Serious injuries could occur if a moving parts is unintentionally contacted.

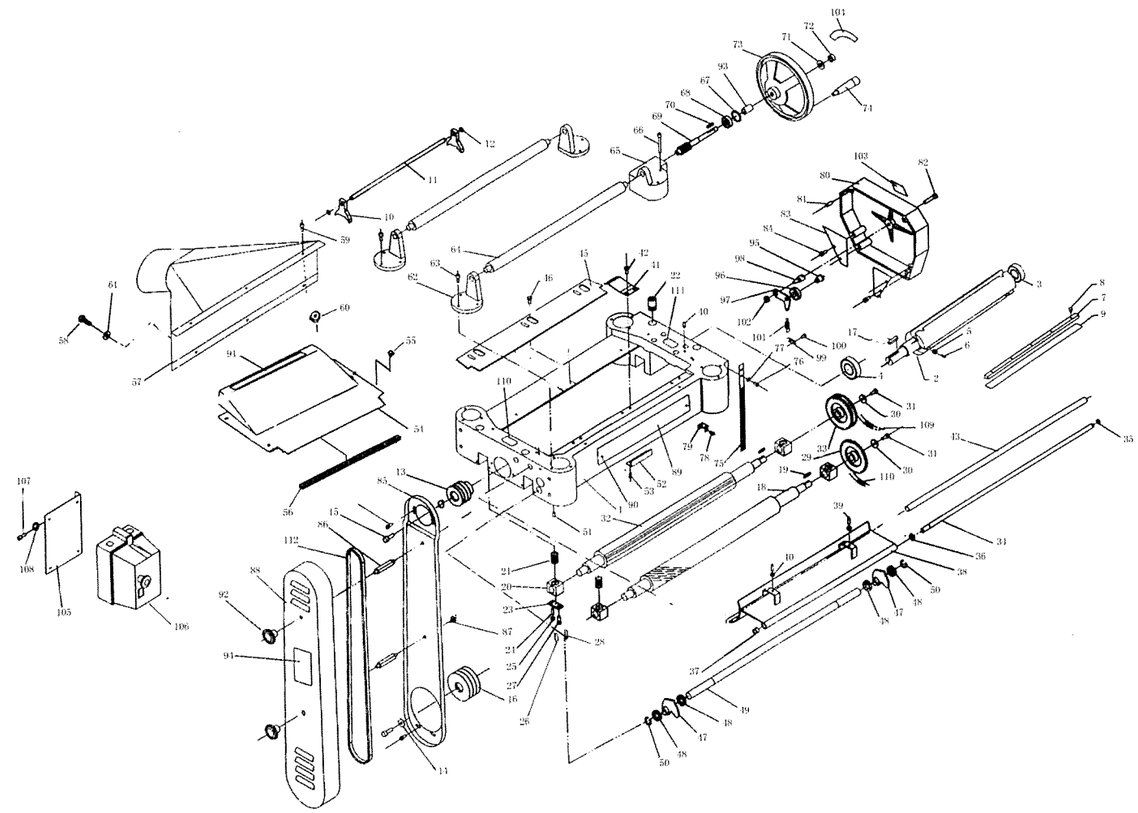
ADDITIONAL SAFETY RULES FOR PRECISION PLANER

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 rolls.
6. Check that switch is in OFF position before plugging in power cord.
7. Before moving table upward or downward, loosen locking knobs. After choosing the proper position, tighten locking knobs. The locking knobs are on the right side of machine as shown in Fig.5.
8. Be sure the knives of cutterhead are correct and all hex screws are secured tightly before use.
9. Keep hands away from the feed rolls 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.

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 case for damage in transit. Record damage and report it immediately to shipper.
2. Open case and check that machine arrived in good condition. If not, let your industrial distribution know immediately.
3. Before lifting machine, remove all bolts locking it to its shipping base.
4. Transport machine to location with a hand truck 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 or damage plastic.
8. Care must be taken when cleaning the cutterhand, as the knives in the cutterhead are very sharp.



CUTTERHEAD

No.	Description	Q'ty	Remark
1	Head Casting	1	
2	Cutterhead	1	
3	Bearing	1	20x47x14
4	Bearing	1	25x52x15
5	Adjusting Nut	6	
6	Hex Soc Hd Set Scr	6	M5x16
7	Knife Locking Bar	3	
8	Knife Setting Scr	15	
9	Knife	3	
10	Knife Gauge	2	
11	Club of Knife Gauge	1	
12	Retaining Ring	2	Φ8
13	Cutterhead Pulley	1	60HZ
14	Collar	2	
15	Hex Bolt	2	M8x20
16	Motor Pulley	1	60HZ
17	Key	2	C8x36
18	Infeed Roller	1	
19	Key	2	C5x16
20	Bush	4	
21	Spring	4	
22	Adjusting Scr	4	
23	Plate	4	
24	Hex Soc Hd Set Scr	4	M5x12
25	Hex Nut	4	M5
26	Spring Pin	4	4x16
27	Hex Bolt	4	M8x16
28	Spring Pin	4	5x20
29	Sprocket	1	
30	Flat Washer	2	
31	Hex Bolt	2	M6x16
32	Outfeed Roller	1	
33	Sprocket	1	
34	Locking Bolt	1	
35	Retaining Ring	1	Φ12
36	Lock Washer	1	Φ12
37	Hex Nut	1	M12
38	Chip Breaker	1	
39	Hex Soc Hd Set Scr	2	M6x18
40	Hex Nut	2	M6
41	Press Plate	3	
42	Hex Locite Scr	6	
43	Shaft	1	
44	Hex Soc Hd Set Scr	1	M6x20
45	Chip Deflector Plate	1	
46	Hex Locite Scr	3	
47	Anti-Kickback Finger	29	
48	Collar	30	
49	Shaft	1	
50	Retaining Ring	2	Φ15
51	Hex Soc Hd Set Scr	1	M8x16
52	Cut Limit Plate	1	
53	Cross Flat Hd Scr	2	M6x8
54	Upper Cover	1	
55	Hex Locite Scr	6	
56	Foam Piece	1	
57	Dust Hood	1	
58	Hex Soc Cheese Hd Scr	3	M8x20
59	Hex Bolt	3	M6x10
60	Hex Nut	3	M6
61	Flat Washer	6	Φ6
62	Roller Stand	3	
63	Hex Soc Cheese Hd Scr	9	M5x14
64	Roller	2	
65	Worm	1	
66	Hex Soc Cheese Hd Scr	3	M5x55
67	Retaining Ring	1	
68	Bearing	1	12x32X10
69	Worm Gear	1	
70	Key	1	4x20
71	Flat Washer	1	Φ12
72	Hex Nut	1	M12
73	Hand wheel	1	
74	Handle	1	
75	Scale	1	
76	Cross Pan Hd Scr	2	M6x12
77	Flat Washer	4	Φ6
78	Cross Pan Hd Scr	2	M6x10
79	Pointer	1	
80	Gear Box Cover	1	
81	Spring Pin	2	6x20
82	Hex Soc Cheese Hd Scr	1	M8x45
83	Safty Hatch	2	
84	Hex Locite Scr	4	
85	Belt Guard	1	
86	Bolt	2	
87	Hex Soc Flat Hd Scr	2	M6x12
88	Belt Cover	1	
89	Nameplate	1	
90	Rivet	2	2x4
91	Warning Label	1	
92	Nut	2	
93	Collar	1	
94	Warning Label	1	
95	Idle Shaft	1	
96	Idle Pulley	1	
97	Bracket	1	
98	Shaft	1	
99	Hanger	1	
100	Hex Soc Cheese Hd Scr	2	
101	Spring	1	
102	Collar	1	
103	Speed Rate Label	1	
104	Hand Wheel Label	1	
105	Switch Plate	1	
106	Magnetic Switch	1	MS1-09D
107	Hex Soc Cheese Hd Scr	2	M6x12
108	Flat Washer	2	Φ6
109	Chain	1	06B-1x63
110	Chain	1	06B-1x49
111	Oil Level Label	2	
112	V-Belt	3	Z1525

Lifting Handles

There are four lifting handles furnished. All lifting handles are of hidden type. Pull the handles out for use, push in when not in use. Two of the lifting handles (A) are as shown in Fig.1.

Fig. 1

Lifting Planer

If any type of sling is used to lift machine, be sure to attach to lifting handles only. Be sure that machine is kept in level position while lifting, as shown in Fig.2.

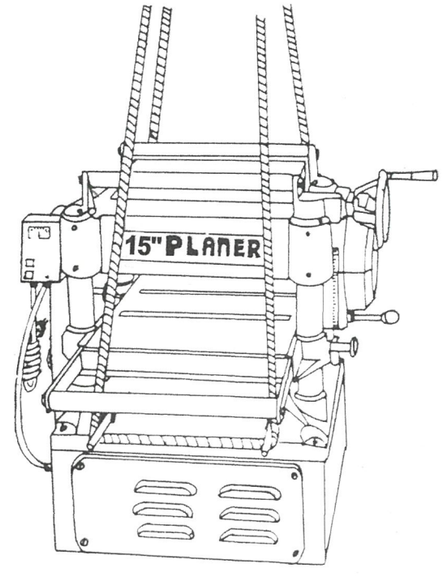


Fig. 2

Lubrication Guide of 15″ Precision Planer

No.	Position	Interval	Suitable Types of Oil
1	Chain	Frequently	Grease
2	Gear Box	When operated more than 2500 hours	HD-100, Mobil Gear 627, Shell Omala 100, ESSO Spartan EP-100
3	Rollers	Frequently	SAE-30
4	Worm Gear	Frequently	Grease
5	Lead Screw	Frequently	Grease
6	Column	Frequently	Clean and SAE-30
7	Chain	Frequently	Grease
8	Bushing	frequently	SAE-30

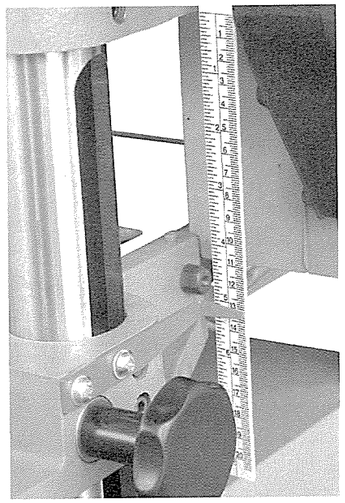


Fig. 5

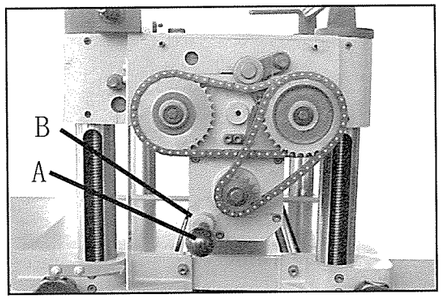


Fig. 3

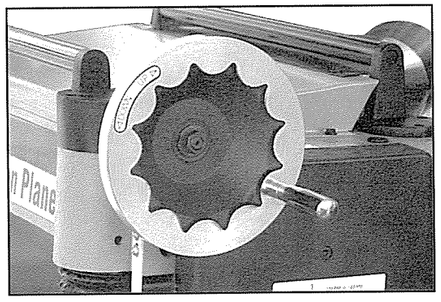


Fig. 4

Lubrication Guide of Gear Box:

The gear box lubricant must be replaced every 2500 hours. Suitable lubricant is multipurpose gear box lubricant.

To Replace Lubricant:

1. Remove the drain plug (A) Fig.3 and filler cap (B), drain dirty oil thoroughly.
2. Tighten the drain plug (A).
3. Fill with clean lubricant through hole (B).
4. Tighten the filler cap (B).

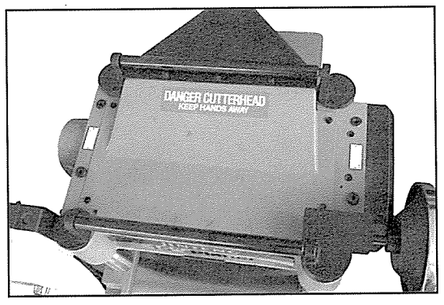


Fig. 6

Feed Speed Control

Your machine is equipped with a spiral, serrated infeed roller and a solid steel outfeed roller. When the feed rollers are engaged, they turn to feed the stock. The feed rollers slow automatically when the machine is under heavy load for best planing under all conditions. The feed rollers are driven by chains (D) Fig.28 and the sprockets (E), which takes power directly from the cutterhead through the oil bath gear box (F) Fig.28.

There are two feed speeds in the gear box by using the shift lever(G) Fig.28 to pull out or push in, and the feed speed range as shown in Fig.29.

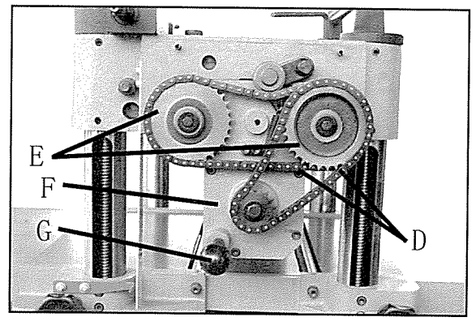


Fig. 28

Feed Roll Speed Rate

Speed rate of feed roll is transmitted by shaft gears in gear box.

Shift gears handle shown as Fig.29. There are three kinds of operations of gear box by using shaft handle to pull or push. In position A feed roll is operating on rate 30 FPM, shown as Fig.29. In position B feed roll is operating on rate 0. In the position C feed roll is operating on rate 16 FPM.

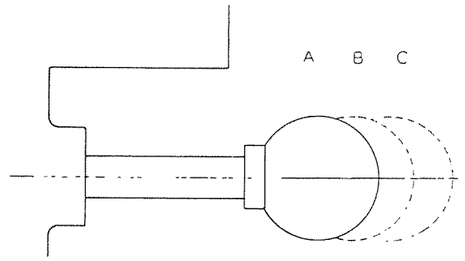


Fig. 29

Return Rollers

The two return rollers (A) Fig.30 on the top of the machine serve as convenient stock rest. When planed lumber is returned to the infeed side it saves time and motion, as shown in Fig.30.

Accessory Dust Collector Hood

Dust collector hood is standard accessory. Assembled to the rear of the planer using Hex Hd. Screws and washers. It provides an efficient means of maintaining a clean and safe work area as shown in Fig.30 (B).

WARNING

IF AFTER READ THIS MANUAL YOU ARE STILL UNSURE ON HOW TO SAFELY OPERATE THIS MACHINE, DON NOT OPERATE UNTIL YOU HAVE RECEIVED FURTHER INSTRUCTIONS FROM A QUALIFIED PERSON.

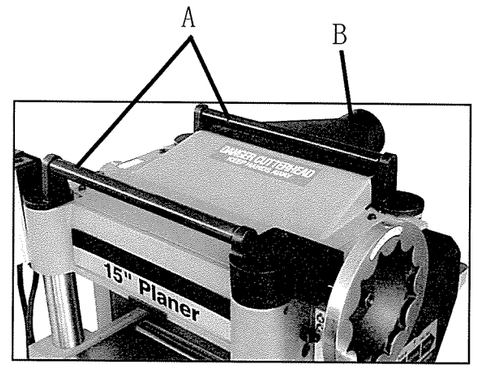


Fig. 30

Anti-Kick Back Fingers

The anti-kick back fingers (F) Fig.26 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.

Fig. 26

Checking, Adjusting Height of Infeed Roller, Chipbreaker, and Outfeed Roller

The infeed roller, chipbreaker and outfeed roller are adjusted at the factory. The infeed roller to be set 0.04″ (1.0mm) below the cutting circle, the chipbreaker to be set 0.02″ (0.5mm) below the cutting circle and the outfeed roller to be set 0.03″ (0.75mm) below the cutting circle. If an adjustment to the infeed roller, chipbreaker or outfeed roller is necessary, use the manner of the example.

EX. To check and adjust the outfeed roller below the cutting circle 0.03″ (0.75mm), proceed as follows:

1. Disconnect machine from the power source.
2. Make sure the knives are adjusted properly as previously explained under **CHECKING AND ADJUSTING OF KNIVES.**
3. Place the gage block on the table directly underneath the cutterhead. Using a 0.03″ (0.75mm) feeler gage, placed on top of the gage block, raise the working table until the knife just touches the feeler gage when the knife is at its lowest point. Do not move the working table any further until the outfeed roller is adjusted.

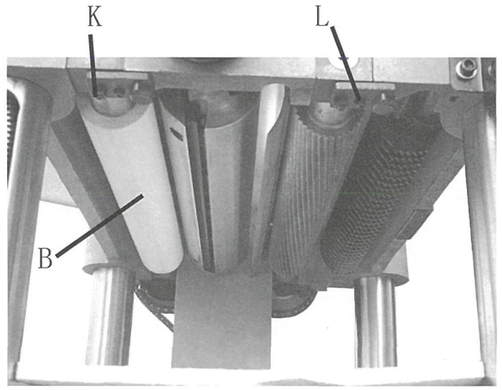


Fig. 27

4. Move the gage block under one end of the outfeed roller (B) as shown in Fig.27, The bottom of the outfeed roller should just touch the top of the gage block. If an adjustments to the outfeed roller is necessary, loosen the lock nut (K) Fig.27 and turn screw (L) Fig.27 until the outfeed roller just touches the gage block. Then tighten lock nut (K) as shown in Fig.27.
5. Check and adjust opposite end of the outfeed roller in the same manner.

Assembling and Aligning Motor, Motor Pulley and Belt:

1. Assemble the motor pulley to the motor shaft with the key and tighten the screw in the motor shaft, as shown in Fig.7.

2. Assemble the motor to the motor mounting plate, as shown in Fig.8.
   NOTE: It is very important the motor must be mounted to motor plate by using the mounting hardware (A) Fig.8.

3. Using a straight edge, align the motor and cutterhead pulleys as shown in Fig.9, the motor plate (B) Fig. 8 can be moved for alignment by loosening the set screws (C) in the motor plate (B) as shown in Fig. 8.

4. Assemble the belts to the two pulleys, as shown in Fig.9, and adjust for the proper belt tension by rising or lowering the motor plate, as shown in Fig. 10, then tighten the nuts (C) Fig.10. Correct tension is obtained when there is approx. 1/4″ deflection of the center span of the pulley by using light finger pressure.

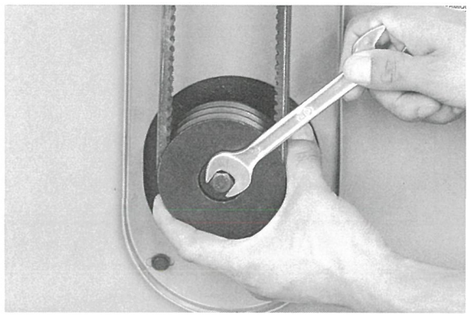


Fig. 7

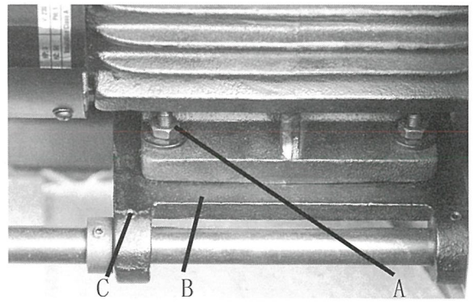


Fig. 8

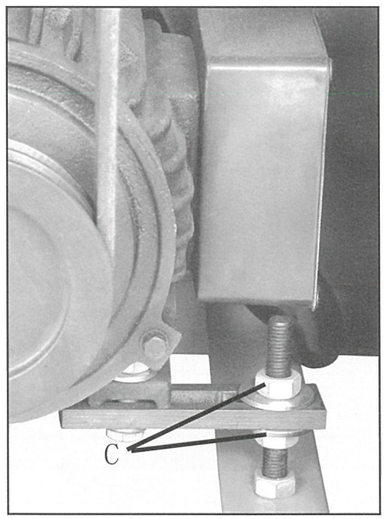


Fig. 10

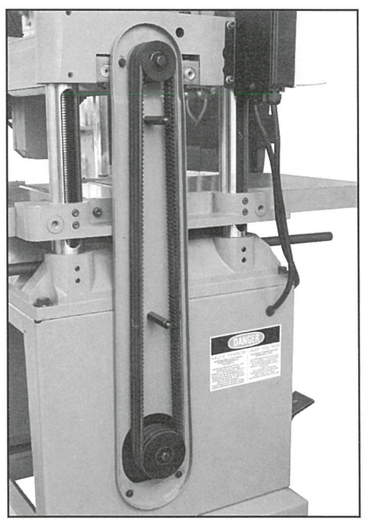


Fig. 9

Adjusting Table Rollers

Your planer is supplied with two table rollers (A) Fig. 11, 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, however, when planing rough stock, the table rollers should be set at high position, and when planing smooth stock the table rollers should be set at low position.

NOTE: The raising range between0.003″ ~0.006″ when raising the roller higher above table as shown in Fig.12.

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 machine from the power source.
2. Lay straight edge Fig.13 across both rollers, loosen the screws (B) Fig.13, and turn the eccentric shafts (C) to raise or lower the table rollers, when the proper height is obtained, tighten screws (B) as shown in Fig.13. Table rollers must be adjusted on the opposite end of table in the same manner.

NOTE: 1. Be sure that the height of front and rear rollers are the same.

2. The table rollers must always be set par allel to the table.

Assembling Table Extension

The table extension can be mounted to the table for regular position using the Hex Hd. Screws (A) (unshown) and washers supplied , as shown in Fig.14.

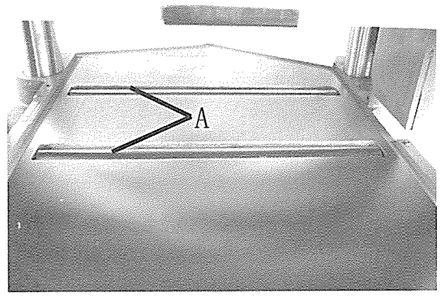


Fig. 11

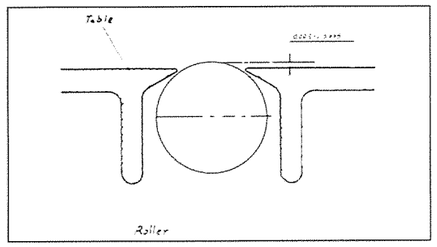


Fig. 12

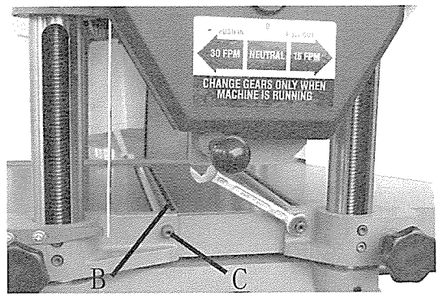


Fig. 13

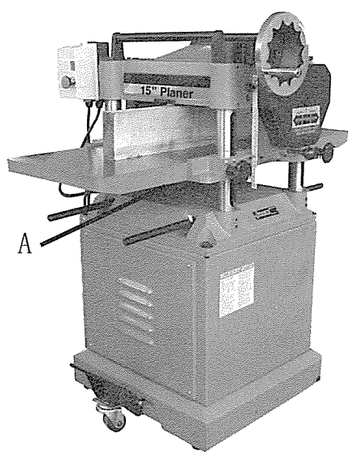


Fig. 14

NOTE: A. Turning sprocket (D)Fig.23, clockwise will increase the distance between the working table and head casting, counter-clockwise will decrease the distance.

B. This adjustment is very sensitive and it should not be necessary to turn the sprocket more than one or two teeth.

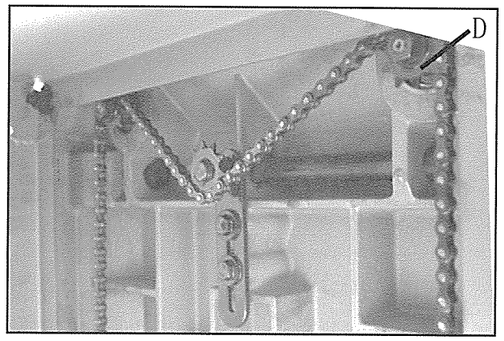


Fig. 23

Know the Transmitting Rollers of Your Planer

A. Infeed Roller
B. Outfeed Roller
C. Chip breaker
D. Cutterhead
E. Anti-Kick Back Fingers

The infeed roller (A) and outfeed roller (B) Fig.24 are those parts of your planer that feed the stock while it is being planed. The infeed roller and the outfeed roller 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 is causes damage to the board.

The tension should be equal at both ends of each roller.

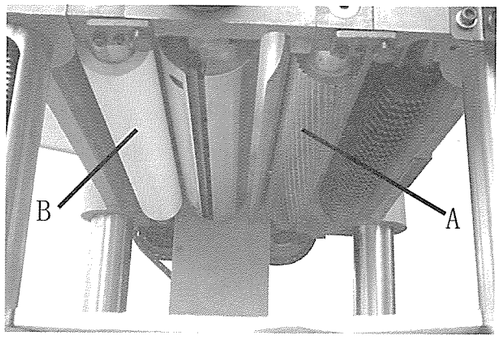


Fig. 24

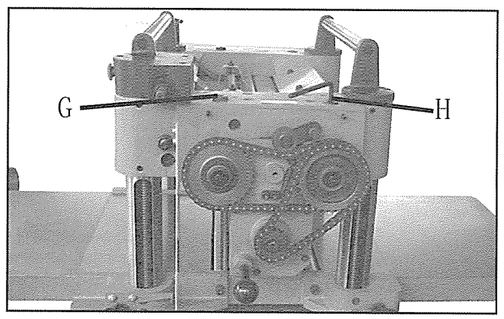


Fig. 25

Adjusting Infeed and Outfeed Rollers Spring Tension

*To adjust the spring tension of the infeed/outfeed roller, turn the screw (G)/(H) Fig. 25 and also the screw on the opposite end of the infeed/outfeed roller.

WARNING

AFTER REPLACING AND CHECKING, PLEASE CHECK ONE MORE TIME CAREFULLY. BE SURE THAT THE DIRECTION OF KNIVES IS CORRECT AND ALL 15 LOCKING SCREWS ARE TIGHTENED SECURELY. IT IS VERY IMPORTANT.

Checking Working Table Parallel to Cutterhead

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

1. Disconnect machine from the power source.
2. Place the gage block on the working table directly under front edge of head casting (B) Fig.20, make slight contact by gently raising table.
3. Move the gage block to opposite end of the working table, as shown in Fig.21.

IMPORTANT: DISTANCE FROM THE WORKING TABLE TO EDGE OF THE HEAD CASTING SHOULD BE SAME.

4. Adjut opposite end in the same manner.

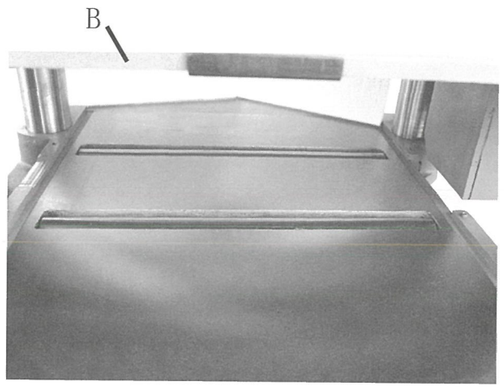


Fig. 20

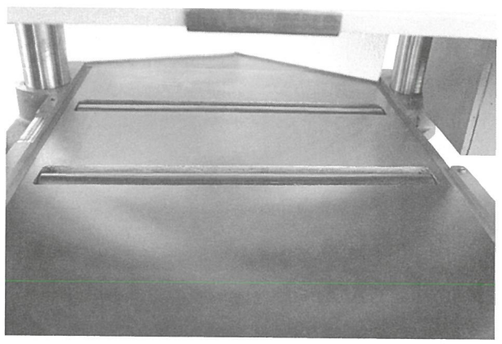


Fig. 21

Adjusting Working Table Parallel to Cutterhead

If the working table is not parallel to the cutterhead, perform the adjustment procedures as follows:

1. Disconnect the machine from power source.
2. Tilt planer on its side to expose underside of base as shown in Fig.22.
3. Remove bolt (A) and loosen bolt (B) Fig.22, which will allow you to move the idler sprocket assembly (C) far enough to release tension on chain, as shown in Fig.22.
4. Remove chain from sprocket on corner of base that must be adjusted in Fig.23 chain has been removed from sprocket (D).

Turn sprocket (D) Fig.23 by hand to bring that corner into adjustment with other three corners.

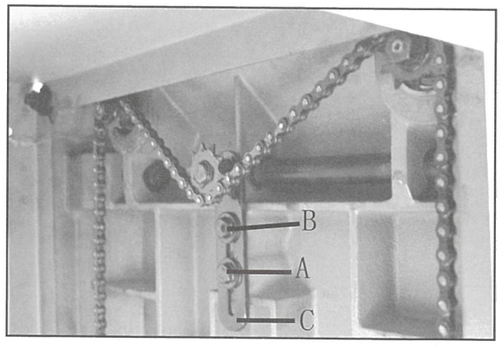


Fig. 22

Adjusting Table Extension

Place a straight edge between the table extension and the table, as shown in Fig.14 to check the table extension and the table are at the same height.

To adjust the table extension, proceed as follows:

1. Loosen the screws and washer to move the table extension to the proper position, then tighten the screws.
2. Adjust front and rear table extension in the same manner.

Controlling the Depth of Cutting

The cutting depth scale is a combination inch/metric scale (A), Fig.15, cutting range from 0 to 8″ (204mm). The distance of upward or downward movement is controlled by handwheel (B) Fig.15, for one revolution is 0.059″ (1.5mm). Before moving table upward or downward, loosen the lock nuts (C) as shown in Fig. 15. After choosing the proper position, tighten the lock nuts (C).

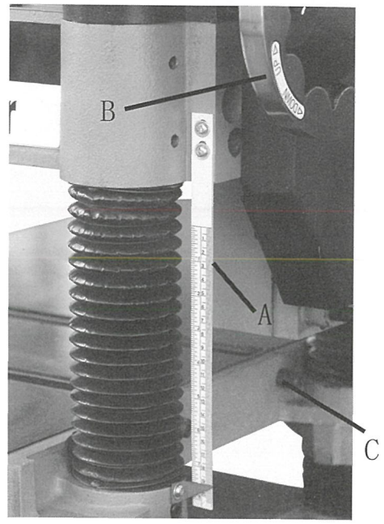


Fig. 15

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 hardwood. This gage block can be made by following the dimensions shown in Fig.16.

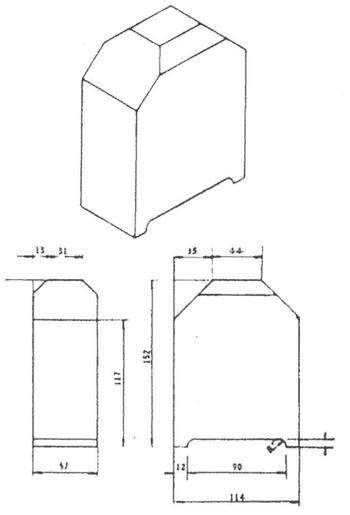


Fig. 16

WARNING

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

Checking and Adjusting of Knives.

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

1. Disconnect the machine from the power source.
2. Remove the four screws (A), and remove the upper cover (B) as shown in Fig.17.
3. To check and adjust knives use the knife gage (A) Fig.18 and check all three knives.
   Knives should just contact the bottom of the center protrusion (B) of the knife gage, as shown in Fig.19.
4. If an adjustment to one or more of the knives is necessary, slightly loosen the knife locking bars (C) Fig.19 of all three knives by turning the 15 locking screws (D) Fig.19 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 gage adjust the knife, that must be reset by loosening all five locking screws (D) Fig.19, 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 protrusion (B) of the gage (A) Fig.19. Then snug up the knife locking bar by lightly backing out the five locking screws (D) against the slot.
   NOTE: At this time, only tighten the knife into the slot just enough to hold knife into position.
6. If additional knives must be reset, repeat STEP 5.
7. After all three knives are set with screws just snug, back out and tighten the five screws (D) Fig.19 against the slot, starting with the end screws first, then the center screws until the knife securely held in the cutterhead.
   Tighten remaining two knives in the same manner.
   NOTE: Double Check All Screws for Tightness.

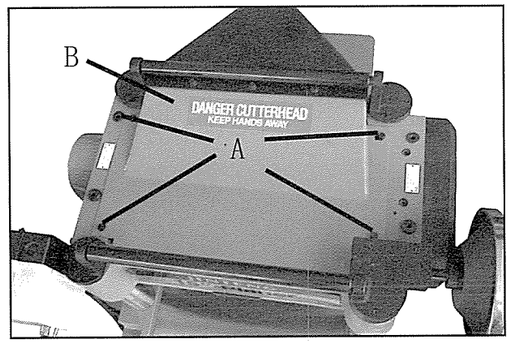


Fig. 17

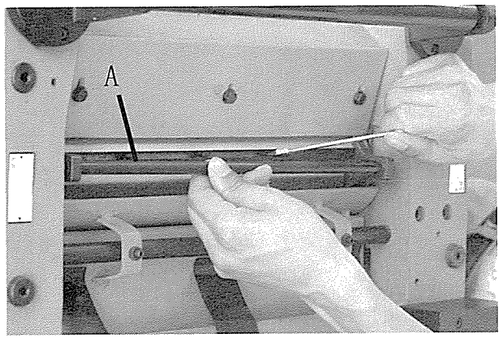


Fig. 18

Replacing and Resetting of Knives

If the knives are removed for sharpening, care must be exercised in replacing and resetting them, proceed as follows:

1. Disconnect the machine from the power source.
2. Remove four screws (A), and the upper cover (B) as shown in Fig.17.
3. To remove knife, loosen the knife locking bar (C) Fig.19, by turning the five knife locking screws (D) into the knife locking bar (C) and remove the knife locking (C), knife (F) and springs (E) located the knives. Please take note: the inner two springs will pop out when removing the knife and knife locking bar.
4. Remove the remaining two knives in the same manner.
5. Thoroughly clean the knife slots, knife locking bars, springs and locking screws. Check the locking screws, if the threads appear worn or stripped or if the heads are becoming rounded, replace them.
6. Inspect the cutting edge of the knives for nicks or wire edge. Hone the knives slightly using a stone if the knives are to be sharpened, maintain a cutting angle of 35 degrees as shown in Fig.19.
7. Insert springs (E), knives (F), and knife locking bar (C) into slot of the cutterhead, as shown in Fig.19. Back out locking screws (D) just enough to hold the knife in the cutterhead.
8. Place the knife gage (A) over the knife as shown in Fig.19.
9. While holding down on the knife gage (A) Fig.19, loosen all five locking screws (D) by turning them into the locking 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.
10. Replace and reset the other two knives in the same manner.

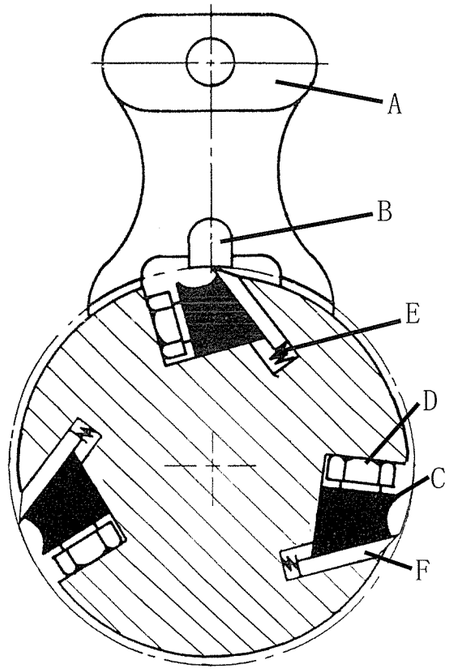


Fig. 19

NOTE: AT THIS TIME, ONLY TIGHTEN THE KNIFE INTO THE SLOT JUST ENOUGH TO HOLD THE KNIFE IN POSITION.

11. After all three knives are set with the screws just snug, back out and tighten the five screws (D) Fig.19, 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.