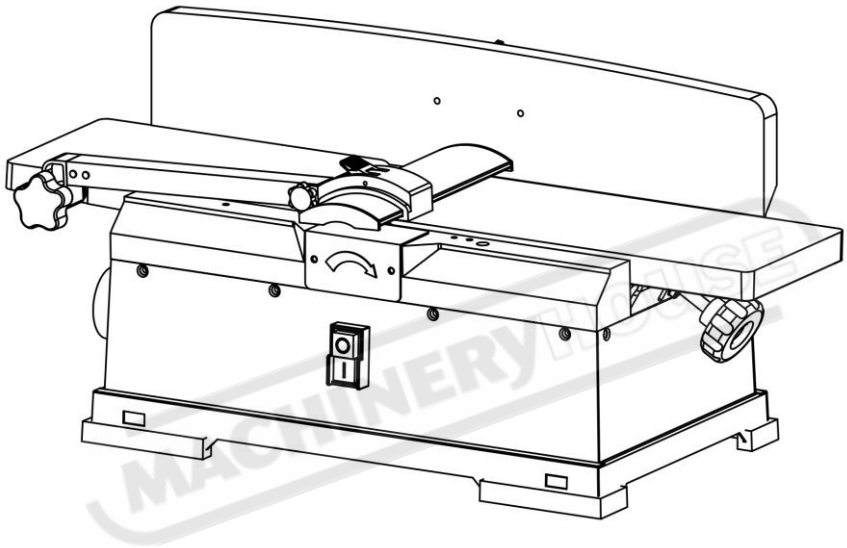
Operator's Manual

HAFCO WOODMASTER

10-9-2020

PJ-6B BENCH PLANER JOINTER

(#W618)



CAUTION: Read and follow all Safety Rules and operating Instructions before First Use of this Product. Keep this manual with tool.

PRODUCT SPECIFICATIONS

Jointer / Planer	
Motor	240V 50Hz 1100W
Max Cutting Width	153mm
Max Cutting deep	3mm
Cuts Per Minute	20000
Table Size	730X160mm
Fence Size	580X110mm
Dust collection port	60.5mm
Fence angle	-45° to +45°

SAFETY INSTRUCTIONS

WARNING: When using electric tools, basic safety precautions, including the following, should always be followed to reduce the risk of fire, electric shock and personal injury. Read all these instructions before operating this product and save the instructions.

GENERAL

1. Read and understand manual.

For your own safety, read and understand the entire instruction manual before operating the lathe.

2. Read and understand warning label.

Read and understand the warning labels posted on the machine. Failure to comply with all of these labels may cause serious injury.

3. Keep work area clean.

Cluttered areas and benches invite injuries.

4. Consider work area environment.

Do not expose power tools to rain. Do not use power tools in damp or wet locations. Keep work area well lit. Do not use power tools where there is risk to cause fire or explosion.

5. Guard against electric shock.

Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, ranges, refrigerators).

6. Keep children away.

Do not let visitors touch the tool or extension cord. All visitors should be kept away from work area.

7. Store idle tool.

When not in use, tools should be stored in a dry, high of locked up place, out of reach of children.

8. Do not force the tool.

It will do the job better and safer at rate for which it was intended.

9. Use the right tool.

Do not force small tools or attachments to do the job of a heavy duty tool. Do not use tools for purposes not intended; for example, do not use circular saws to cut tree limbs or logs.

10. Dress properly.

Do not wear loose clothing or jewellery, they can be caught in moving parts. Rubber gloves and non-skid

footwear are recommended when working outdoors. Wear protecting hair covering to contain long hair.

11. Use safety glasses and hearing protection.

Also use face or dust mask if the cutting operation is dusty.

12. Do not abuse the cord.

Never carry the tool by the cord of yank it to disconnect it from the socket, Keep the cord away from heat, oil and sharp edges.

13. Do not overreach.

Keep proper footing and balance at all times.

14. Maintain tools with care.

Keep cutting tools sharp and clean for better and safer performance. Follow instructions for lubrication and changing accessories. Inspect tool cord periodically and if damaged have it repaired by an authorized service facility. Inspect extension cords periodically and replace, if damaged. Keep handles dry, clean and free from oil and grease.

15. Disconnect tools.

When not in use, before servicing and changing accessories such as blades, bits and cutters, disconnect tools.

16. Remove adjusting keys and wrenches.

Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.

17. Avoid unintentional starting.

Do not carry a plugged-in tool with a finger on the switch. Ensure switch is off when plugging in.

18. Use outdoor extension leads.

When tool is used outdoors, use only extension cords intended for outdoor use.

19. Stay alert.

Watch what you are doing. Use common sense. Do not operate tool when you are tired.

20. Check damaged parts.

Before further use of tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, free running of moving parts, breakage of parts, mounting and any other conditions that may should be properly repaired or replaced by an authorized service center unless otherwise indicated in this instruction manual. Have defective switches replaced by an authorized service facility. Do not use the tool if the switch does not turn it on and off.

21. Warning.

The use of any accessory or attachment, other than those recommended in this instruction manual or the catalog, may present a risk of personal injury.

22. Have your tool repaired by a qualified person.

This electric tool is in accordance with the relevant safety requirements, Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

ADDITIONAL SATETY RULES FOR THIS PRODUCT

1. Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.
2. Keep hands away from moving parts and cutting surfaces.
3. Feed work into blade or cutter against the direction of rotation.
4. Handle workpiece correctly. Protect hands from possible injury.
5. Make sure blades are aligned and properly attached to cutterhead.
6. Use quality lumber. Blades last longer and cuts are smoother with good quality wood.
7. Do not perform jointing/planing operations on material shorter than 8-1/8″, narrower than 3/4″, or less than1/4″ thick.
8. Never make jointing cut deeper than 1/8″.
9. Do not back the work toward the infeed table.
10. Support the workpiece adequately at all times during operation; maintain control of the workpiece.
11. Use push block/push stick for jointing material narrower than 3″ or planing material thinner than 3″.
12. Take precautions against kickback. Do not permit any-one to stand or cross in line of cutterhead's rotation. Kickback or thrown debris will travel in this direction.
13. Replace or sharpen blades as they become damaged or dull.

ELECTRICAL REQUIREMENTS

POWER SUPPLY AND MOTOR SPECIFICATIONS

WARNING: To avoid electrical hazards, fire hazards, or damage to the tool, use proper circuit protection. Use a separate electrical circuit for your tools. To avoid shock or fire, if power cord is worn or cut, or damaged in any way, have it replaced immediately.

GROUNDING INSTRUCTIONS

WARNING: This tool must be grounded while in use to protect the operator from electrical shock.

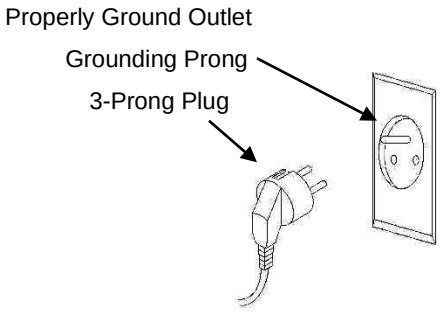
IN THE EVENT OF A MALFUNCTION OR BREAKDOWN, grounding provides a path of least resistance for electric current and reduces the risk of electric shock. This tool is equipped with an electric cord that has an equipment-grounding conductor and a grounding plug. The plug MUST be plugged into a matching receptacle that is properly installed and grounded in accordance with ALL local codes and ordinances.

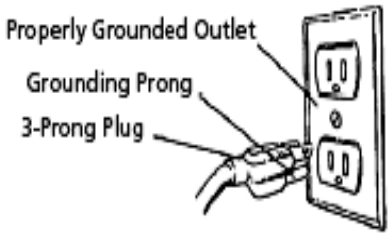
DO NOT MODIFY THE PLUG PROVIDED. If it will not fit the receptacle, have the proper receptacle installed by a qualified electrician.

IMPROPER CONNECTION of the equipment-grounding conductor can result in risk of electric shock. The conductor with green insulation (with or without yellow stripes) is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, DO NOT connect the equipment-grounding conductor to a live terminal.

CHECK with a qualified electrician or service person if you do not completely understand the grounding instructions, or if you are not sure the tool is properly grounded.

Refer to nether picture:





WARNING: Improper connection of equipment grounding conductor can result in the risk of electrical shock. equipment should be grounded while in use to protect operator from electrical shock.

-Check with a qualified electrician if you do not understand grounding instructions or if you are in doubt as to whether the tool is properly grounded.

-This tool is equipped with an approved cord and a 3-prong grounding type plug for you protection against shock hazards.

-Grounding plug should be plugged directly into a properly installed and grounded 3-prong grounding-type receptacle, as shown.

-Do not remove or alter grounding prong in any manner. in the event of a malfunction or breakdown, grounding provides a path of least resistance for electrical shock.

WARNING: This machine is for indoor use only. Do not expose to rain or use in damp locations.

GUIDELINES FOR EXTENSION CORDS

USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord,

Be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and cause overheating.

Be sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it. Protect your extension cords from sharp objects, excessive heat and damp or wet areas.

ACCESSORIES AND ATTACHMENTS

RECOMMENDED ACCESSORIES

WARNING: To avoid injury:

- Use only accessories recommended for this machine.
- Follow instructions that accompany accessories. Use of improper accessories may cause hazards.
- Use only accessories designed for this machine to avoid injury from thrown broken parts or work pieces.
- Do not use any accessory unless you have completely read the instruction or operator's manual for that accessory.

CARTON CONTENTS

UNPACKING AND CHECKING CONTENTS

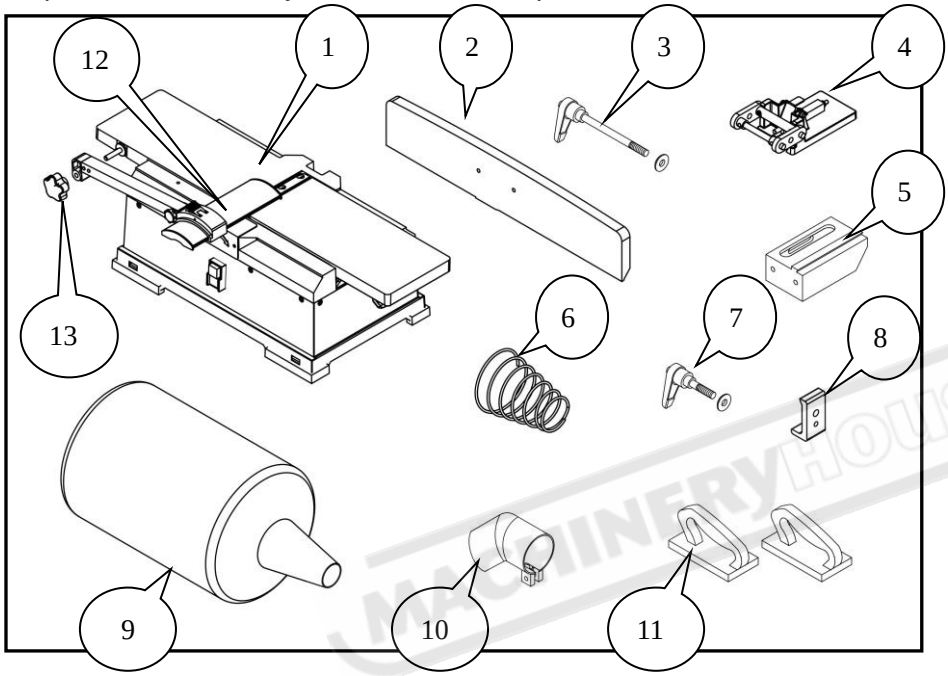
Carefully unpack the machine and all its parts, and compare against the illustration following.

WARNING:

- To avoid injury from unexpected starting, do not plug the power cord into a power source receptacle during unpacking and assembly. This cord must remain unplugged whenever you are assembling or adjusting the machine.
- If any part is missing or damaged, do not plug the machine in until the missing or damaged part is replaced, and assembly is complete.

TABLE OF LOOSE PARTS

Unpack carton; check you machine to see parts listed below:



1. Jointer
2. Fence
3. Fence tilting handle with spacer
4. Fence sliding support assembly
5. Fence support
6. Spring
7. Fence sliding handle with spacer
8. Locking plate
9. Filter bag
10. Dust chute
11. Push block
12. Cutter guard assembly
13. knob

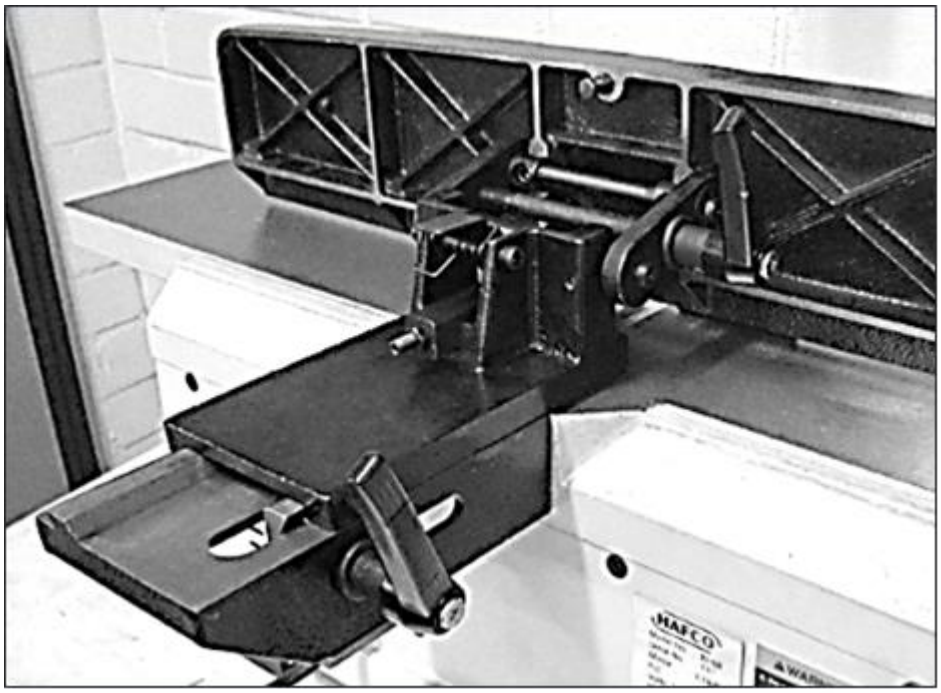
Caution
Always be aware of Sharp Spindle Blades

Hardware bag includes:

- M6X20 Socket head bolts (2)
- 3,4,5mm Hex wrench

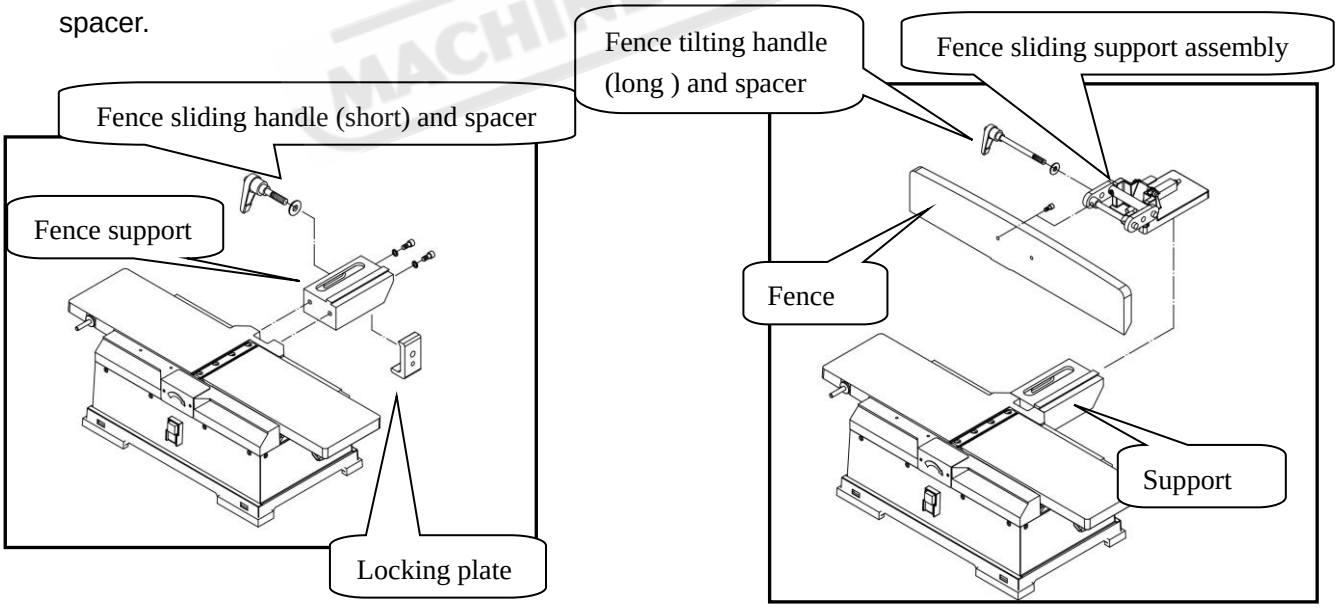
ASSEMBLY

Caution. Keep away from Sharp spindle blades



ATTACH SUPPORT TO PLANER•

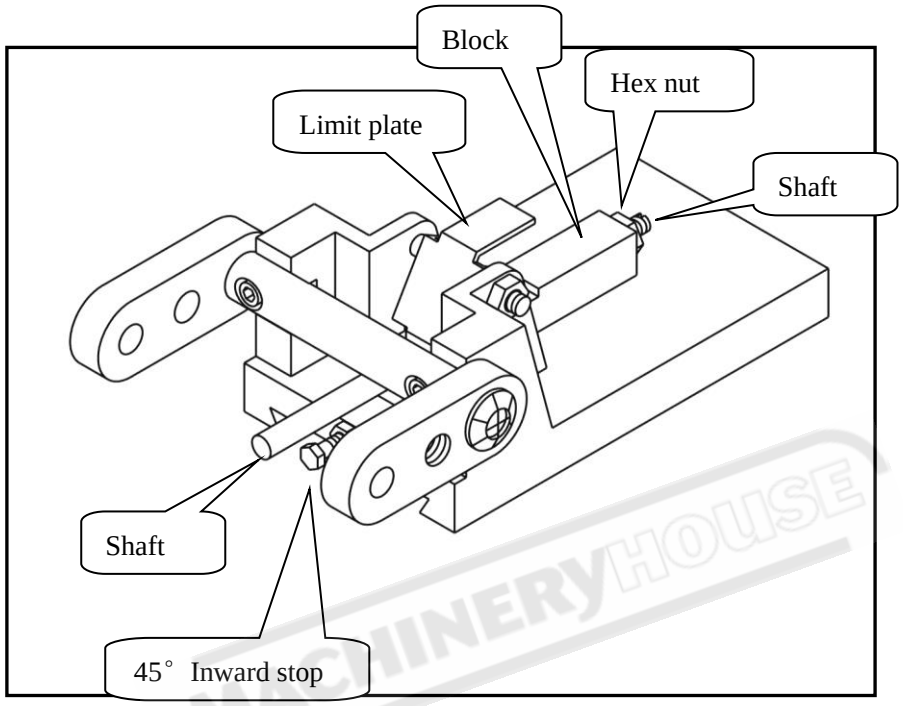
- Remove the two socket head screws and washers from the planer, attach fence support to planer using the screws and washers.
- Insert locking plate into support. Holding the locking plate and assemble the fence sliding handle and spacer.



INSTALL FENCE AND FENCE BRACKET TO PLANER

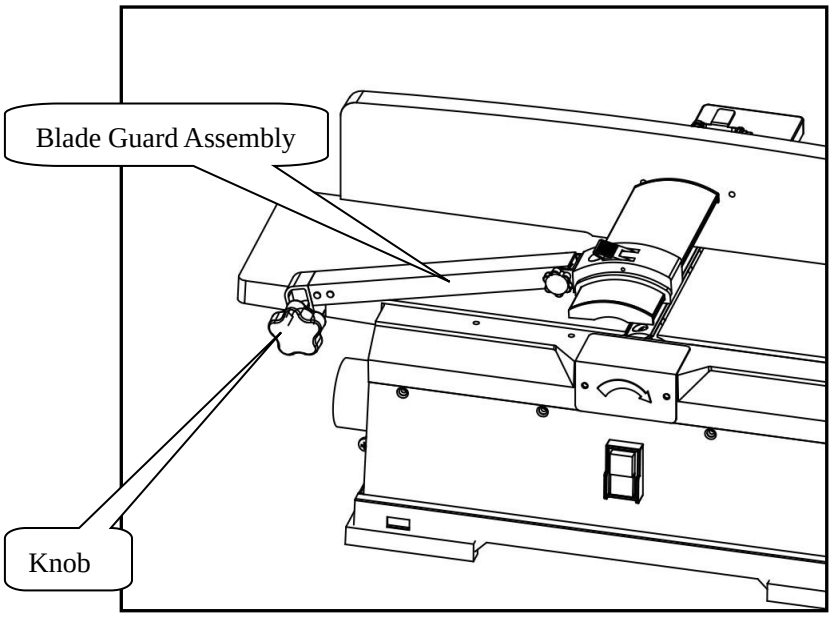
- Attach fence to fence sliding support assembly with two socket head screws.
- Slide fence and sliding support over and onto dovetails of support and locking plate.
- Continue to slide fence forward so that the fence is over the planer tables. At this position the edge of the blade guard will rest against the fence, and the entire width of the cutter head is covered. Secure sliding support in position with fence sliding handle.
- Insert fence tilting handle with spacer through right link and thread into left link.

- Make sure limit plate is resting in slot of block. Position fence against shaft and lock fence in position with fence tilting handle.
- Place a combination square against face of fence and table surface. The fence and table must be at 90° to each other. If not, loosen tilting handle, loosen hex nut and turn shaft with a screw driver until fence is square. Secure in position by tightening hex nut.
- Use a bevel gauge or protractor to check 45° inward and outward limit stops. The 45° inward stop is the hex head bolt located beneath the shaft. The 45°outward stop is located at the top of the fence. If adjustment is needed, loosen hex nut, turn hex head bolt to proper position and secure in place with hex nut.



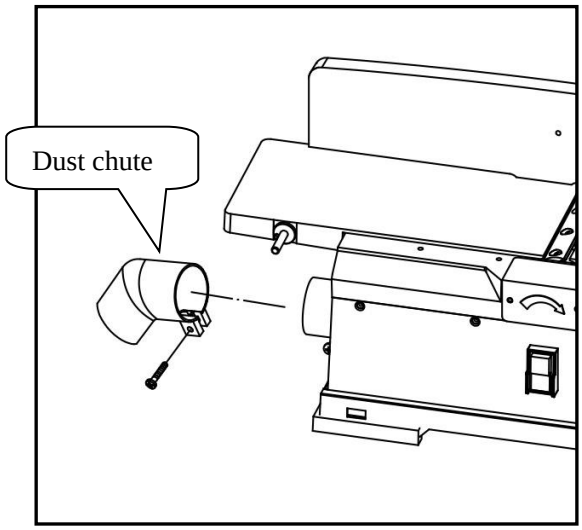
INSTALLING THE BLADE GUARD

Attach the blade guard assembly onto the shaft beside the outfeed table. Fix the blade guard assembly with the knob. ## **Blade guard assembly must be assembled on machine at all times** ##



INSTALL THE DUST CHUTE

Slide dust chute onto end of chip exhaust. Tighten pan head screw.

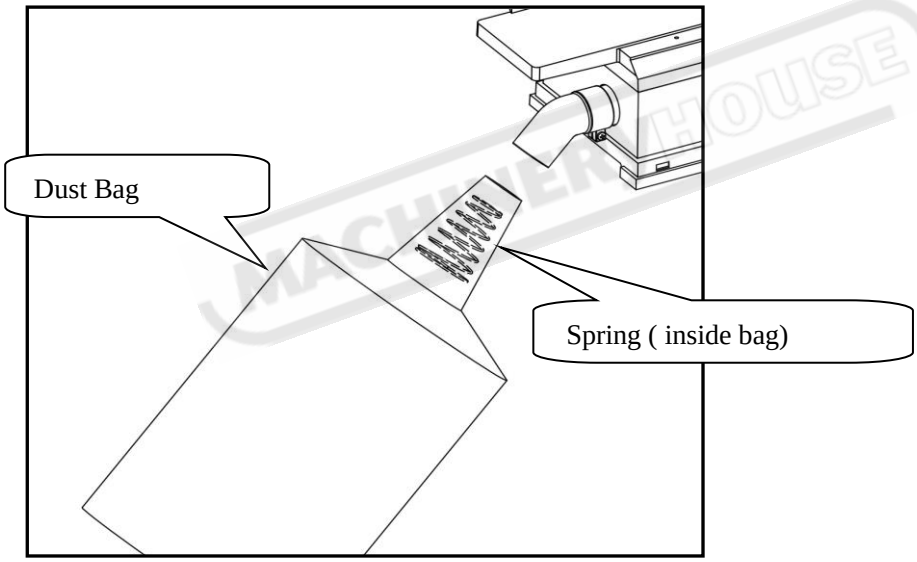


INSTALLING THE FILTER BAG

Open the zipper on the bottom of the bag, place the spring inside of the filter bag arm.

Slide the spring & bag over the dust exhaust port

Close the zipper.



OPERATION INSTRUCTIONS

Jointing is a surfacing operation in which a small amount of wood is removed from the edges and faces of boards to get smooth, straight and even surfaces such that the two edges that run across the planning blocks would fit together perfectly, forming a seamless joint.

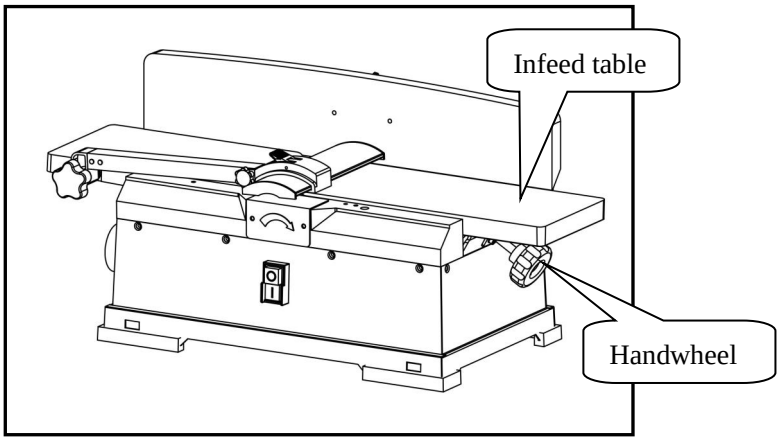
Planing refers to the sizing of lumber to a desired thickness while creating a level surface parallel to the opposite size of the board. Depth of cut is the term used to indicate how deep the blades will cut into the workpiece.

ADJUST THE DEPTH OF CUT

The depth of cut is adjusted by the relative positioning of the infeed table with respect to the cutterhead. Infeed table can be raised or lowered using the handwheel.

Turning the handwheel counterclockwise will lower the infeed table causing more wood to be removed from workpiece.

Turning the handwheel clockwise will raise the infeed table causing less wood to be removed from workpiece.
Do not make jointing or planing cuts deeper than 3mm.



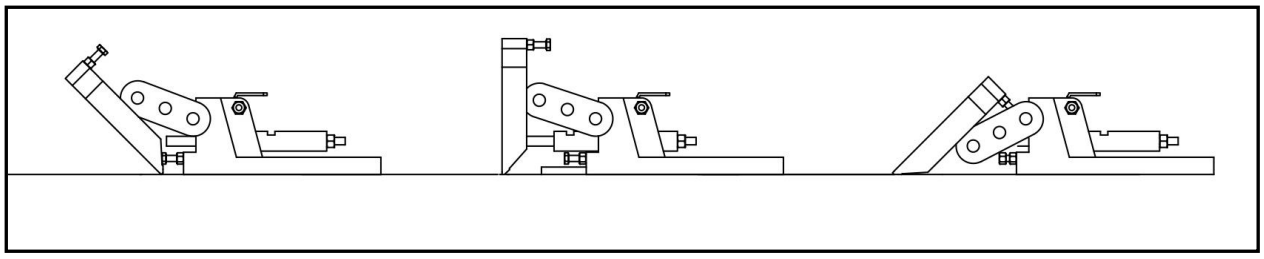
POSITION THE FENCE

The fence can be position positioned to plain the wood at any angle from 45°inward to 45°outward.

Before adjusting the fence position, make sure the power is turn off.

To adjust the angle of the fence:

- Loosen the fence tilting handle. This handle is spring loaded. To loosen the handle it is necessary to gently pull the handle away from the fence support release and turn again continue until loosened.
- Manually tilt the fence to desired angle inward or outward. As long as you have set up the machine as described in the installation instructions part of this manual then, the fence will hit the 45° stops inward or outward at 45°and measurement should not be necessary. However, it is advisable to always check your angles before commencing work.
  NOTE: The fence has positive stops at 0° (90° from table), 45° inward and 45° outward..
- Once the desired angle has been achieved tighten the tilting handle.
- The fence can be positioned over the blade, so that only the desired width of blade is exposed, according to the work piece width.
- Slide fence forward to the desired position and tighten fence sliding handle making sure fence is tight and secure.



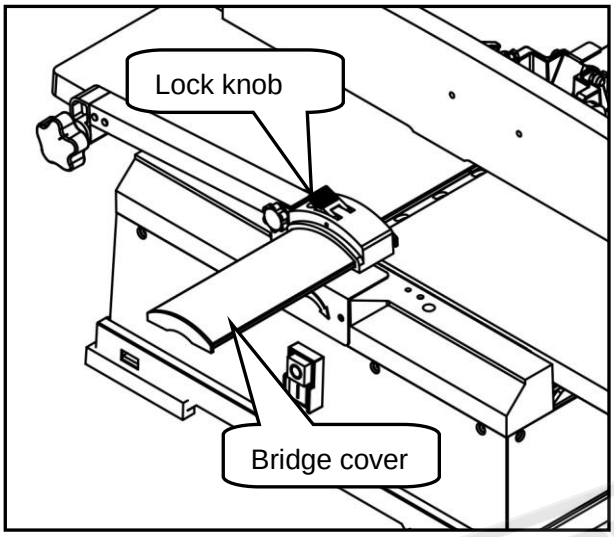
ADJUSTING BLADE HEIGHT

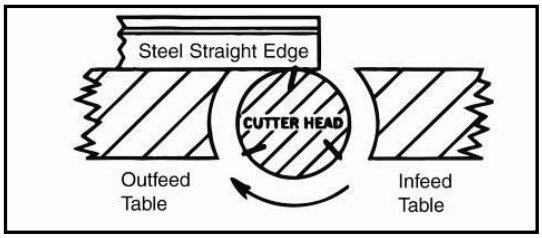
CAUTION: Make sure the switch is in the OFF position and cord is unplugged before proceeding with checking blades.

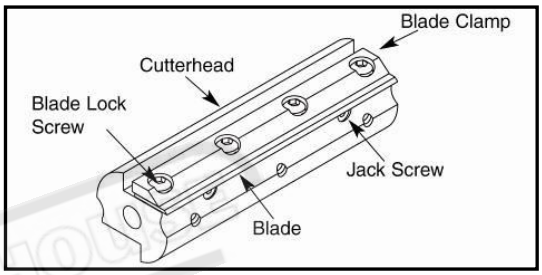
The blades have been adjusted at the factory to assure proper operation and should require no adjustment. However, shipping and handling may have caused misalignment. For accurate cutting, the blades must be

as high as the out feed table when positioned at the highest point. To check blade height:

- Loosen the bridge cover locking knob, pull out the bridge cover.
- Turn the cutter head so that one of the blades is at the highest position.
  CAUTION: The cutter head blades are extremely sharp. Do not let your fingers contact the cutting edge at any time.
- Place a straightedge over the out feed table and the blade
- The straight edge must touch evenly on the out feed table at both ends of the blade.
- Rotate the cutter head by hand. The blades should just touch the straightedge. If a blade is too low or too high at either end, adjust blade height using the jack screws.







AVOID DAMAGE TO BLADES

Planer is a precision woodworking machine and should only be used on quality lumber. Using bad lumber could result in a poor quality cut on subsequent pieces.

For proper operation, it is preferable to use the Planer with a dust collecting system attached to the exhaust port in the rear of the jointer. Attaching a dust collecting system is especially required when taking deeper cuts to prevent clogging of wood chips

- Do not use dirty boards. Dirt and stones are abrasive and will wear blade
- Remove nails and staples. Planer should only cut wood.
- Avoid knots. Heavy cross-grain makes knots hard and they can come loose and jam the planer.
- Assess value of badly warped boards. Operator can be tempted to use too deep of cut to square boards quickly. Use several passes to maintain a level surface.

FEEDING WORKPIECE

Feed rate refers to the rate at which wood is passed over the blades, an even feed will produce a uniformed job, to feed work piece:

Adjust the bridge cover to desired position, and tighten the knob.

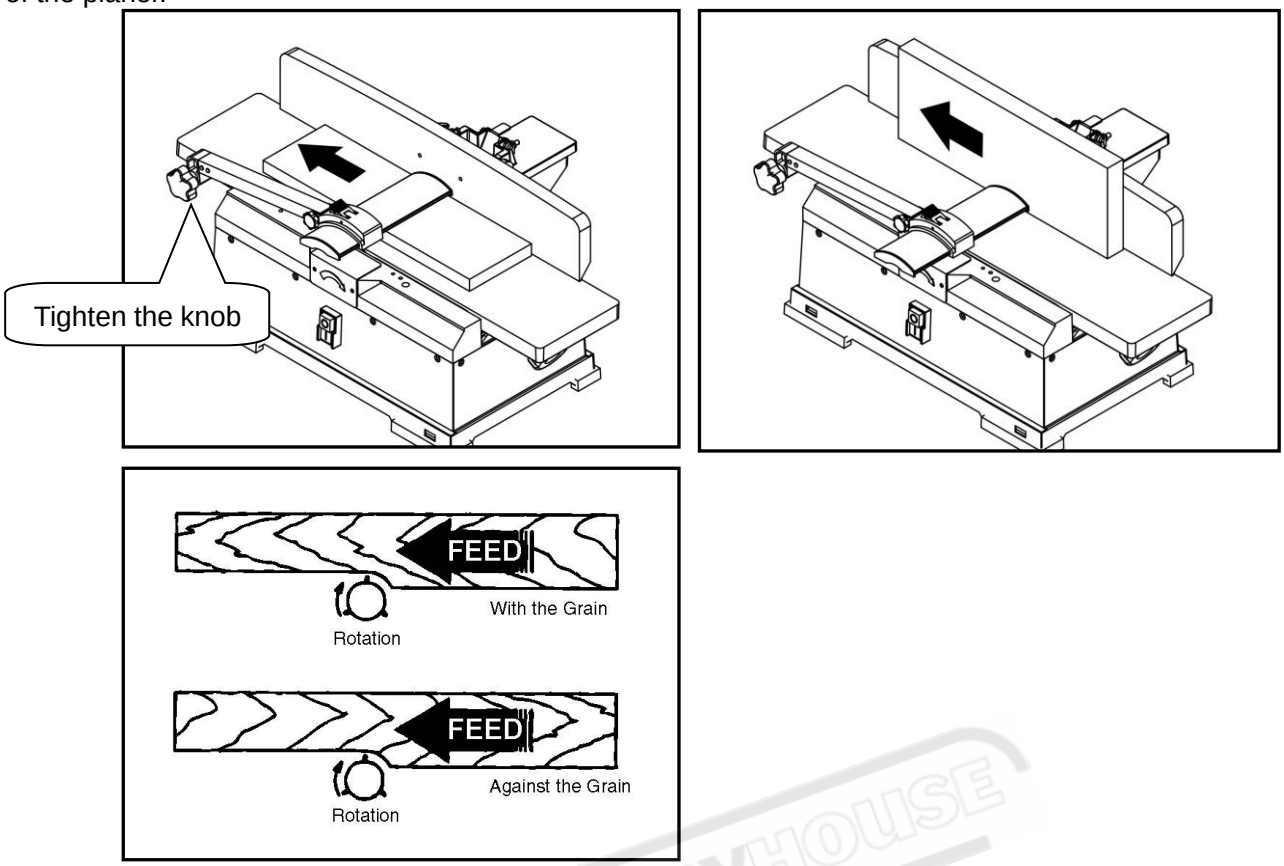
Hold the work piece firmly down on the feed table and against the fence.

Feed the work piece at an even rate over the cutting head, any hesitation or stopping will cause a “step” to be cut in the work piece.

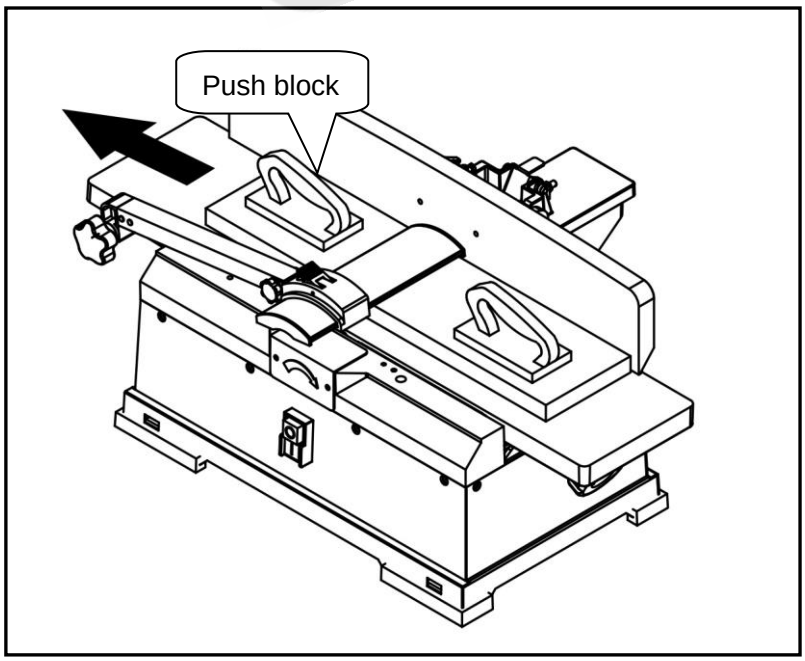
As your trailing hand passes over the cutter head remove your leading hand and place behind your trailing hand and repeat until the entire length of work piece has been cut.

Feed with the grain whenever possible, if the nature of the work piece is such that it must be feed against

the grain take very light cuts and feed slowly. When using long work pieces use extra supports at both end of the planer.

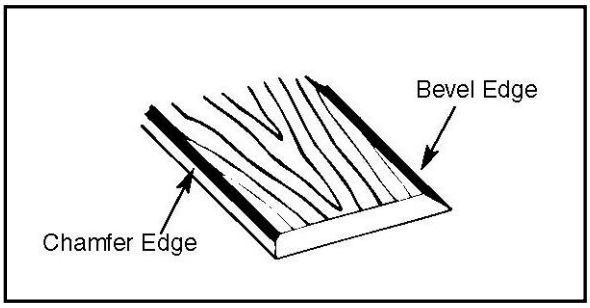


For your safety, use the push block or push stick to hold and feed workpiece when jointing wood that is narrower than 75mm (3″), planing wood thinner than 75mm (3″).



BEVELING AND DHAMFERING

- The fence on the jointer/planer is adjustable from45° inward to 45° outward. Adjust the fence to the desired angle and tighten fence tilting handle.
- Beveling refers to cutting the entire edge of a board at an angle. Beveling may require several passes due to the depth of cut needed.
- Chamfering refers to removing only the corner of the edge of a board. Normally a chamfer is made on one pass;



USING AVACUME HOSE

A standard dust collection hose can be attached to the exhaust port (60.5mm.) under the outfeed table. Jointer will perform properly at all depths of cuts up to 3mm when used with a dust collecting system.
To attach a dust collecting system:

· Insert the dust collection hose to the exhaust port on the rear of the jointer.
· Turn the dust collecting system on.
· Turn the jointer on.
· Periodically replace/empty bag in dust collecting system.

MAINTENANCE

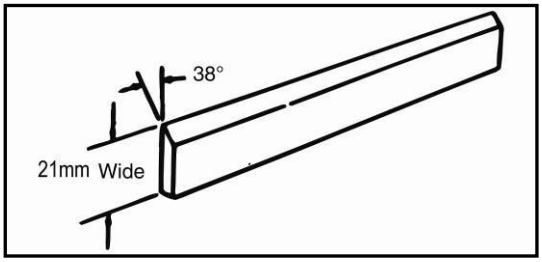
WARNING: Turn the planer off and unplug from the power source before proceeding to do any maintenance work.

CHECKING FOR WORN BLADES

Condition of blades will affect precision of cut. If blade wear is not observed when checking the blade height, the quality of cut will indicate the blade condition, dull blades will tear rather than sever wood fiber. A raised grain will occur when dull blades pound on wood where there is a difference in density. A raised ridge will be produced where the blades have been nicked.

SHARPENING BLADES

If blades are nicked they must be replaced or reground, they can be reground several times until they become 21 mm side. NOTE: many shops do not have capabilities to resurface blades. Never install unbalance blades or blades reground less than 21 mm wide.



REPLACING BLADES

Unplug the planer from power source, block the blade guard from closing, loosen and remove the four blade lock screws securing the blade and blade clamp, lift blade and blade clamp from cutter head, clean any sawdust and resin buildup from cutter head and blade clamp, place the new blade against the blade clamp and replace in cutter head. Secure blade and

blade clamp using the four blade lock screws, do not tighten the blade lock screws until you have checked the blade height ,adjust as required using straight edge as described in “adjusting blade height”. Tighten blade lock screws, recheck blade adjustment and make sure blade is still level with out feed table. Repeat procedure to replace the other blade, remove the scrap wood release blade guard.

BRUSH INSPECTION AND REPLACEMENT

Turn planer off and disconnect from power source. Brush life depends on amount of load no motor. Regularly inspect brushes after 50 hours of use.

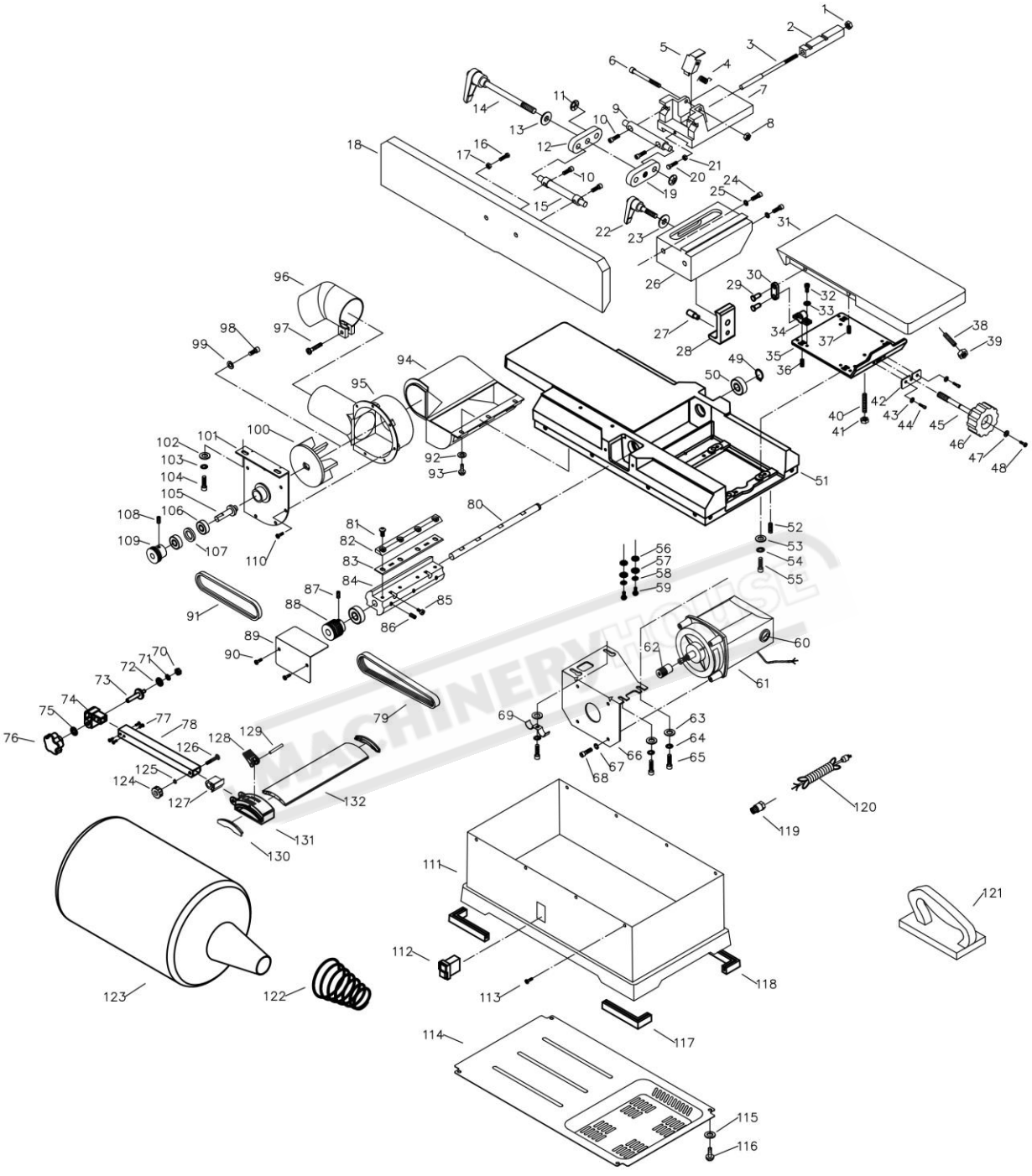
To inspect or replace brushes, undo the four screws of the bottom cover the brushes and located on either side of the motor, loosen brush cap and remove from motor, replace bushes if springs are worn or carbon is worn down to 10mm in length or less.

NOTE: Replace brushes in sets only. Replace brushes and tighten brush cap, replace bottom cover and the four screws.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Motor does not start	1.Defective switch 2.Defective motor 3.Low line voltage	1.Have switch replaced 2.Have motor replaced/repaired 3.Correct low line voltage condition
Motor starts slowly or fails to come to full speed	1.Defective motor windings 2.Clogged wood chips	1. Have motor replaced/repaired. 2. Take shallow depth of cut . Inspect chip blower assembly and fan belt
Motor running too hot	1.Motor overloaded 2.Restricted air circulation due to dust accumulation	1.Reduce load on motor 2.Clean dust and restore normal air circulation
Snipe (gouging at end of boards)	1.Dull blades 2.Inadequate support of long boards 3.Uneven feed	1. Replace or sharpen blades. See “Sharpening Blades,” 2. Support long boards. 3.See “Feeding Workpiece,”

EXPLODED VIEW



PARTS LIST

No.	Description	QTY.
1	Hex nut	1
2	Block	1
3	Shaft	1
4	Spring	1
5	Limit plate	1
6	Socket head screw	1
7	Fence bracket	1
8	Hex nut	1
9	Bracket shaft	1
10	Socket head screw	4
11	Push nut	2
12	Right link	1
13	Spacer	1
14	Fence tilting handle	1
15	Plate shaft	1
16	Hex head bolt	1
17	Hex nut	1
18	Fence	1
19	Left link	1
20	Hex head bolt	1
21	Hex nut	1
22	Fence sliding handle	1
23	Spacer	1
24	Socket head screw	2
25	Lock washer	2
26	Fence support	1
27	Pin	1
28	Locking plate	1
29	Pin	8
30	Bracket	4
31	Infeed table	1
32	Socket head screw	8
33	Lock washer	8
34	Connection bracket	4
35	Table support plate	1
36	Set screw	4
37	Set screw	4
38	Set screw	1

No.	Description	QTY.
39	Hex nut	1
40	Set screw	1
41	Hex nut	1
42	Support plate	1
43	Lock washer	2
44	Socket head screw	2
45	Elevation screw	1
46	Handwheel	1
47	Flat washer	1
48	Pan head screw	1
49	Retaining ring	1
50	Ball bearing	2
51	Body with outfeed talbe	1
52	Set screw	4
53	Flat washer	4
54	Lock washer	4
55	Socket head screw	4
56	Serrated washer	2
57	Flat washer	2
58	Lock washer	2
59	Pan head screw	2
60	Brush	2
61	Motor	1
62	Motor pulley	1
63	Flat washer	4
64	Lock washer	4
65	Socket head screw	4
66	Motor support	1
67	Lock washer	4
68	Socket head screw	4
69	Cord clamp	1
70	Nut	1
71	Lock washer	1
72	Flat washer	1
73	Shaft	1
74	Arm support	1
75	Flat washer	1
76	Arm locking knob	1

No.	Description	QTY.
77	Pan head screw	4
78	Arm	1
79	Drive belt	1
80	Shaft	1
81	Screw	8
82	Blade clamp	2
83	Blade	2
84	Cutter head	1
85	Jack screw	4
86	Set screw	3
87	Set screw	1
88	Drive pulley	1
89	Cover	1
90	Socket head screw	2
91	Fan belt	1
92	Flat washer	3
93	Pan head screw	3
94	Chip collector	1
95	Chip exhaust	1
96	Dust chute	1
97	Pan head screw	1
98	Socket head screw	1
99	Flat washer	1
100	Fan	1
101	Mounting plate	1
102	Flat washer	2
103	Lock washer	2
104	Socket head screw	2

No.	Description	QTY.
105	Fan shaft	1
106	Ball bearing	2
107	Spacer	1
108	Set screw	1
109	Fan pulley	1
110	Thread forming screw	6
111	Base	1
112	Switch	1
113	Flat head screw	13
114	Cover	1
115	Flat washer	6
116	Pan head screw	6
117	Foot B	2
118	Foot A	2
119	Strain relief	1
120	Power cord	1
121	Push block	2
122	Spring	1
123	Filter bag	1
124	Knob	1
125	Retaining ring	1
126	Carriage bolt	1
127	Arm cover	1
128	Lock knob	1
129	Pin	1
130	End cover	2
131	Bridge cover support	1
132	Bridge cover	1