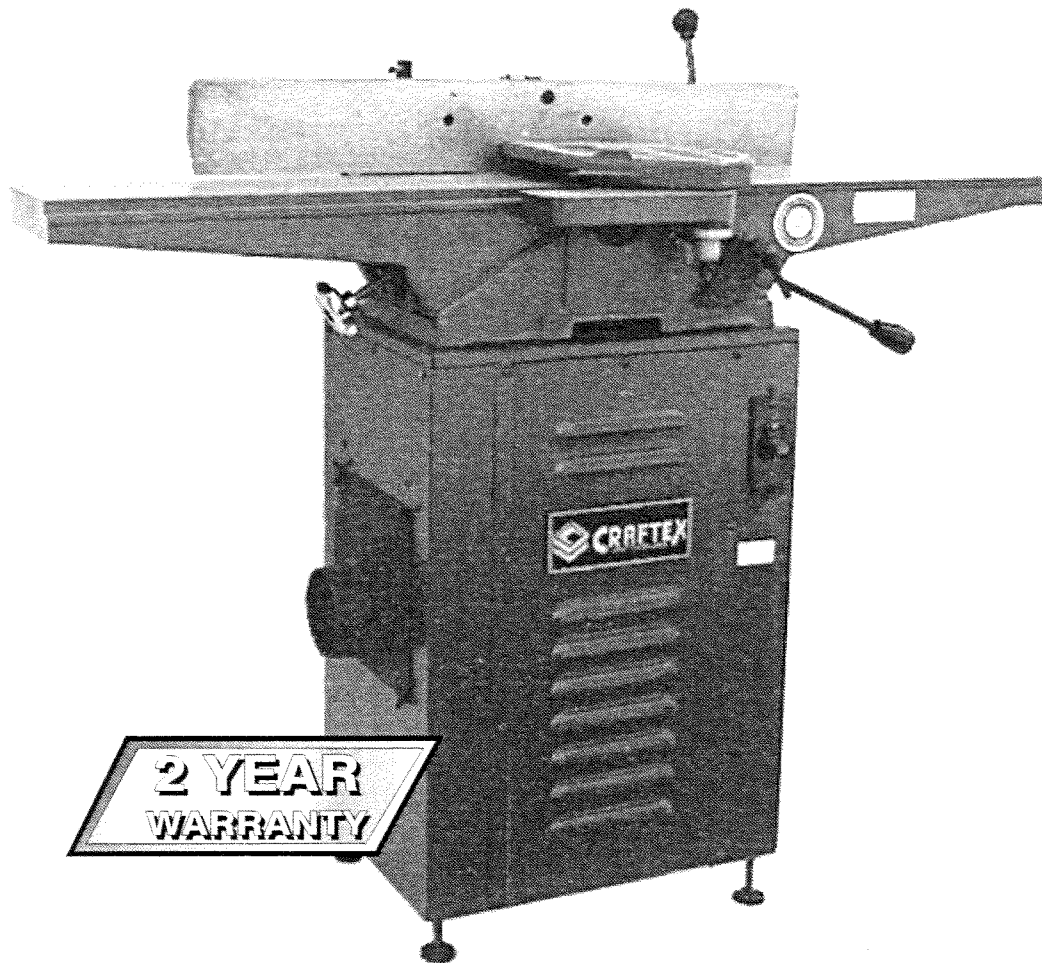




Model B706N

INSTRUCTIONAL MANUAL
6" Woodworking Jointer



NOTE: Warranty Registration should be completed and returned to Busy Bee Tools, 355 Norfinch Drive, North York, Ont. M3N 1Y7

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WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE OR FORM WITHOUT THE WRITTEN APPROVAL OF CRAFTEX INDUSTRIES INC.

OPTIONAL ACCESSORIES FOR B706N JOINTER



**Safety Push
Block**
Model B981

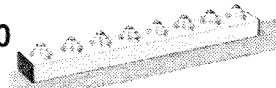


**Safety "V"
Push Stick, 2pc**
Model B1843

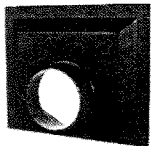


Model B780

ROLLERS



Model B1682



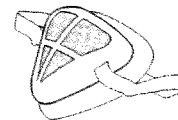
Dust Hood 4"
Model W1001



Safety Glasses
Model B547



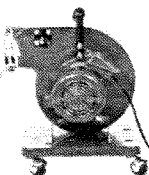
Roller Stand
Model B025100



Dust Mask
Model B738

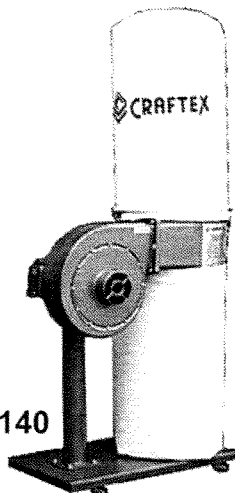
DUST COLLECTORS

CRAFTEX



Portable, 3/4 HP
Model B2179

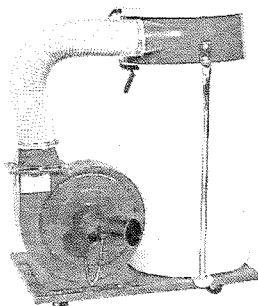
CRAFTEX



1 HP
Model B1140

2 HP
Model
B404

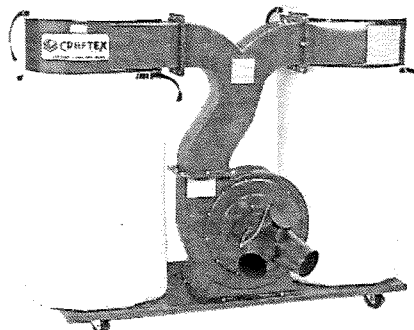
CRAFTEX



CRAFTEX

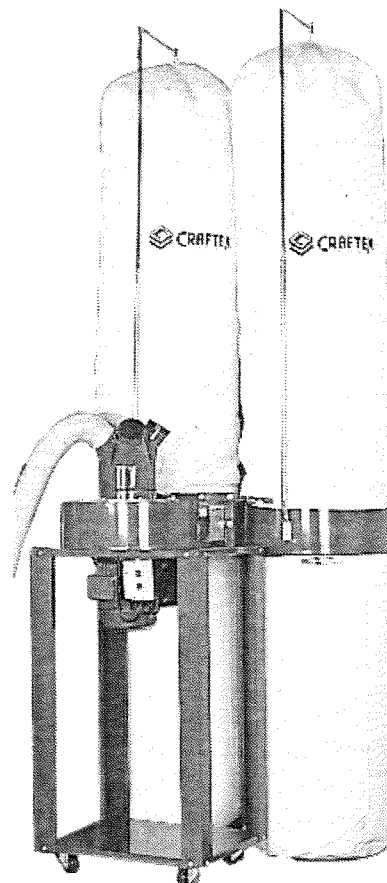
3 HP
Model
B405

CRAFTEX



CRAFTEX

CRAFTEX



Industrial 5 HP
Model B2151A

Busy Bee Tools

Specifications

- Bed size: 7" x 47"
- Fence size: 4" x 29 1/4"
- Cutting capacity: 6" x 1/2"
- Number of knives: 3
- Cutter head speed: 5000 RPM
- Cutter head diameter: 2 3/8"
- Rebutting capacity: 1/2"
- Working height: 30 1/2"
- Motor: 1 HP, 110/220V, 11 Amps
- Floor space required: 57" x 12 1/4"
- Approximate shipping weight: 240 lbs.
- Knife size: 6" x 1" x 1/8"

IMPORTANT INFORMATION

2 YEAR WARRANTY ON THIS PRODUCT -

Retain proof of purchase.

REPLACEMENT PARTS

Replacement parts are available directly from Busy Bee Tools

Refer to back of the manual for part numbers.

To place an order, call 1-800-461-2879, or visit us at www.busybeetools.com.

WARRANTY

Busy Bee Tools warrants every product to be free from defect in materials and agrees to correct such defects where applicable. This particular warranty covers two years for parts and 90 days for labour to the original purchaser from the date of purchase, but does not apply to malfunctions arising directly or indirectly, from misuse, abuse, improper installation or assembly, negligence, accidents, repairs, alterations or lack of maintenance. Busy Bee in no event is responsible or liable for death, injuries or damage to property or person or incidental, contingent, special or consequential damages arising from use of our products. To take advantage of our warranty, return the item freight pre-paid to Busy Bee Tools, 355 Norfinch Drive, North York, Ont., M3N 1Y7, proof of purchase and an explanation of the complaint must accompany the merchandise or call customer service at (416) 665-8008.

CONTENTS

Warranty	1	E. Jointer Stand Illustration	7
A. Tool Features	2	F. Parts Illustration	8,9
B. Safety Rules	2	G. Parts List	10,11
C. Assembly Guide	3	H. Trouble Shooting	17
D. Operation & Adjustment	4-6,12-16		

A. TOOL FEATURES - B706N JOINTER

- This heavy duty jointer has a bed size of 7 1/2" x 47"
- Cast iron construction
- Surface ground tables
- Fine adjustment can be made easily to both front and rear tables
- Cabinet stand with dust chute
- Adjustable cast iron fence with 90° and 45° stops
- Rabbet cuts are possible with rear table design

IMPORTANT INFORMATION

B. SUGGESTED SAFETY RULES

1. Know your power tool, read the instructional manual carefully and make use of reference books in your local library for methods of use.
2. Safety glasses should always be used when there is a danger from flying particles.
3. Proper apparel is important. Do not wear loose clothing, jewelry, rings and loose long hair. Non slip footwear is essential. Do not wear gloves.
4. Have a safe environment. Keep the floor bare and dry. Restrict children and other observers from the center of operations. Lock switches if children have access to your workshop.
5. Disconnect tools when servicing and remove wrenches etc before starting. Never leave a tool running unattended.
6. Do not use machine having taken any medication or stimulant which may impair your judgement.
7. Keep all guards in place, and operational on all cuts. Keep hands away from all moving parts.
8. Make all adjustments to the fence and depth of cut before turning on the machine.
9. Maximum cut when jointing an edge 1/8", when planing a surface, 1/16" is recommended.
10. Minimum length of work 12". Minimum thickness of work 3/8" without jigs and hold-downs.
11. Feed work to cut with the grain.
12. Keep hands away from the cutter head. Allow a 4" margin of safety.
13. Use a push block when planing a flat surface. **NEVER PASS YOUR HAND DIRECTLY OVER CUTTER.**
14. Keep the blades sharp - **DULL TOOLS CAUSE ACCIDENTS.**

C. ASSEMBLY GUIDE - B706N JOINTER

The B706N Jointer shipped from Busy Bee Tools is complete in one package

TO ASSEMBLE THE STAND

Refer to the illustration of page 7, "B706N Stand".

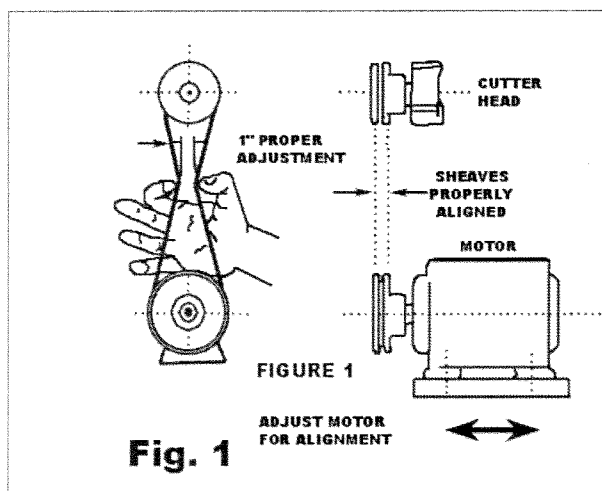
1. We suggest that you assemble the dust chute first. Use the motor plate (4) and two side members (3 & 5) make sure the motor slots in (4) are closest to side (3). Use short small machine screws with washers to assemble. Bolt heads go inside the chute.
2. Fasten chute assembly to base plate (Top) (1).
3. Fasten assembly to left stand support (7).
4. Fasten right stand support (6) to the assembly.

Note - Hold final tightening of assembly screws until stand is complete and on a level surface.

5. Turn the stand upside down and mount the motor on the motor plate using the 4 larger machine bolt washers and nuts. Do not fix tightly in place until after the belt is installed and tensioned. Install the motor pulley (9) and secure making sure the lock screw (11) contacts the key (10) on the shaft.

TO SET UP THE JOINTER

Place the stand up right and place the jointer on top aligning the 3 sets of holes. Install using 3 machine screws and washers. Align the motor and machine pulleys and install the V belts. Adjust for tension as illustrated and tighten the four motor bolts.



Mount the base with good quality anchor bolts through the mounting holes in the base. Install louvered cover plates (2). Remove the shipping preservative using kerosene, or mineral spirits (varsol) and cloths. Do NOT use lacquer thinners as they may damage the painted surface.

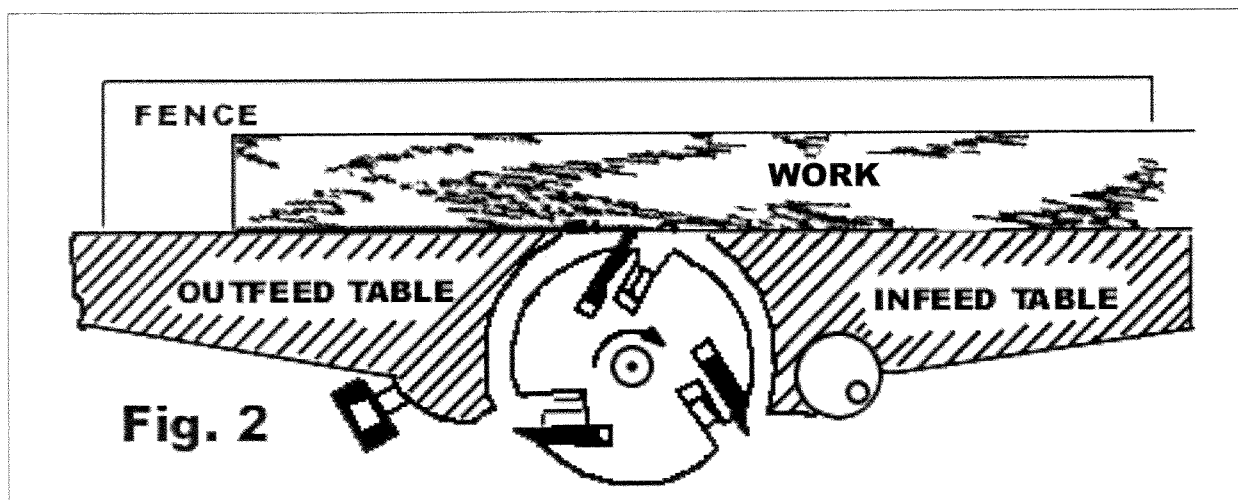
D. OPERATION AND ADJUSTMENT

POWER SUPPLY

The power required is 15 amps, prewired 110 volts (the machine is prewired to 110V), single phase. To guard against voltage drop, Busy Bee recommends that the machine be plugged directly into the outlet. Busy Bee also suggests the use of a dust collection device when using a jointer.

PLANING AN EDGE (JOINTING)

Inspect the grain in the board and determine its direction. Turn to feed properly as shown. Check the fence for squareness and secure it. Have only enough cutter exposed to do the job. Check the guard. Set infeed table for the depth of cut required. Start the jointer. With the stock on the infeed table press it lightly in against the fence. Move the stock through the cut as show, using first one hand and then the other to feed.

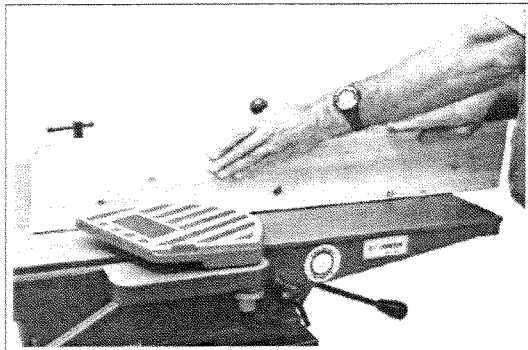


CUTTERHEAD

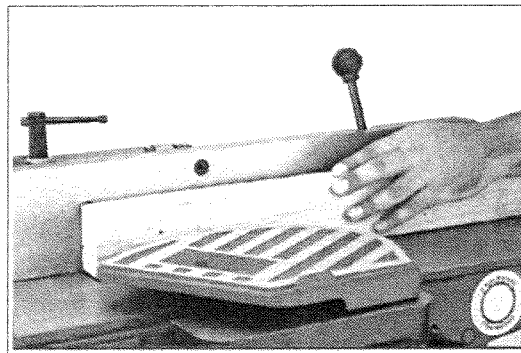
How the jointer works. Note the direction of the woodgrain.

D. OPERATION AND ADJUSTMENT (continued)

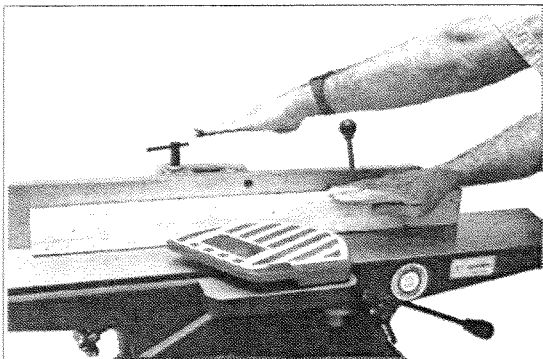
If narrow stock is being jointed keep the left hand well back from the cutter until a foot or more rests upon the outfeed table. Then move the left hand up and over to the outfeed table. Press down and in against the fence and continue the cut to completion with the right hand being brought up and over to the outfeed table. Neither hand needs to violate the 4" margin of safety. Small pieces (12" or less) should be controlled with a push stick.



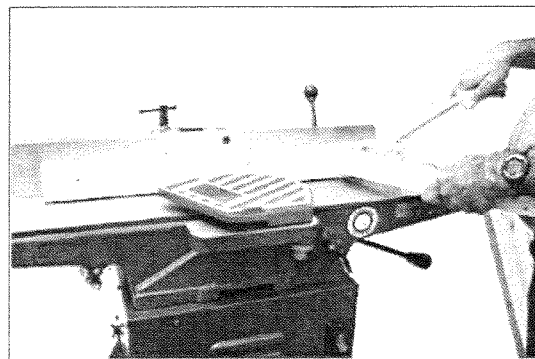
Planing the edge of a large piece.



Planing narrow stock.



Stepping the left hand across.

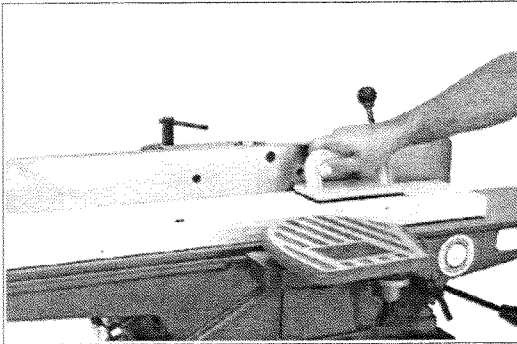


**Planing small pieces
using safety push stick.**

D. OPERATION AND ADJUSTMENT (continued)

PLANING A SURFACE

Feed in the direction indicated by the grain. If the wood is warped or cupped, place the concave surface down. Set the depth of cut at about 1/16". Feed in the same fashion "Planing an edge". When nearing the end of the cut finish it using a push block, similar to the illustration.



Using a pusher block for a surface cut.

PLANING END GRAIN

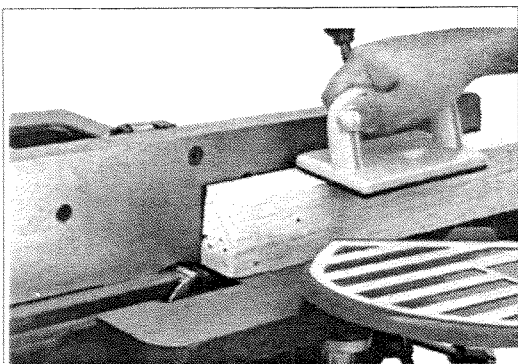
End grain or plywood may be planed by first planing about an inch on one end and then reversing the work. Minimum length 12". Take a light cut and a slow feed rate.

BEVELS AND CHAMFERS

The fence is set at an angle and may be tilted in either direction in relation to the table. When possible tilt toward the table.

FORMING A RABBET

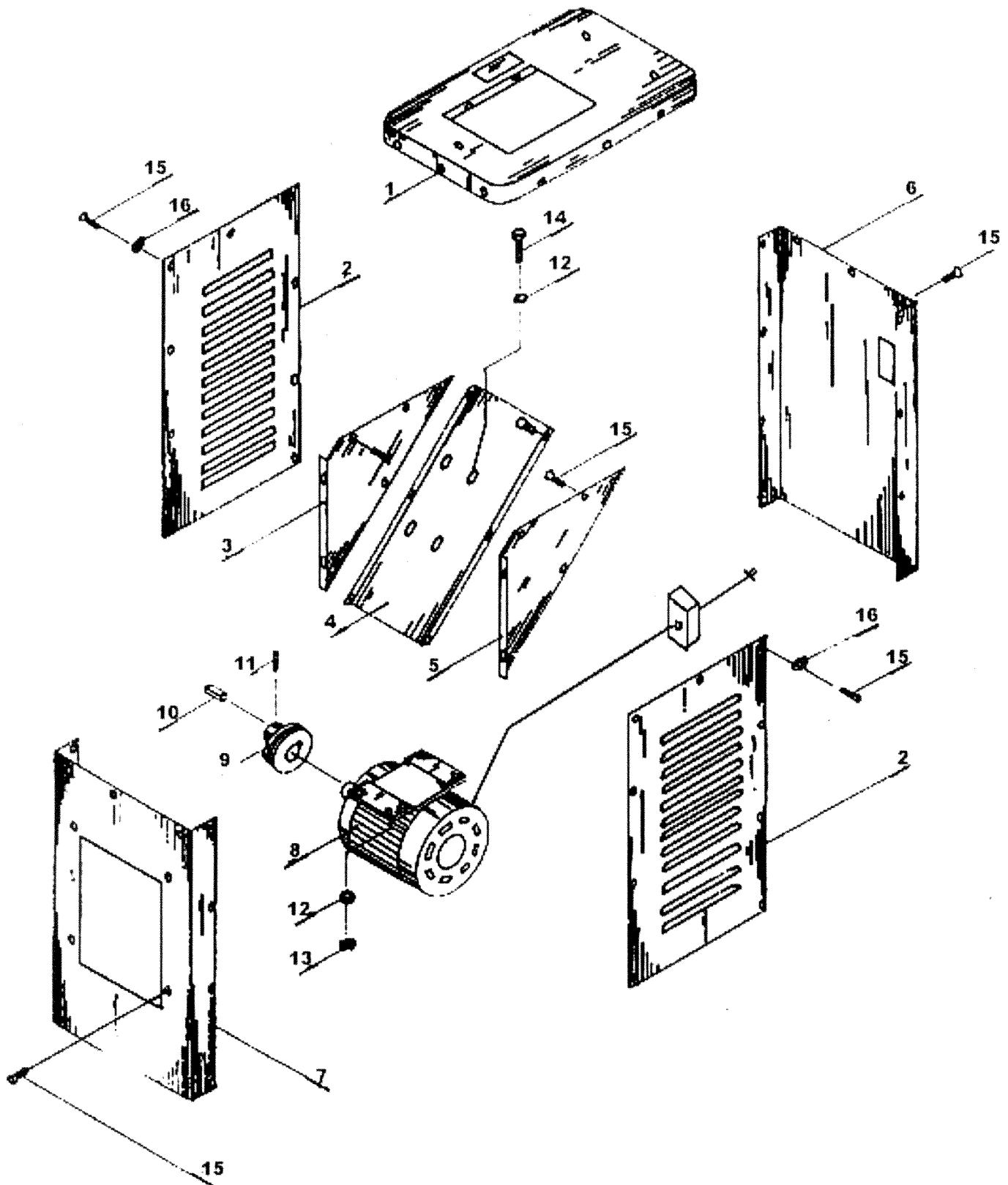
First set the fence to required distance from the ends of the knives for the width of rabbet. Then lower the infeed table to the required depth. Remove the guard. If the wood is hard or the depth of rabbet is great it may be necessary to make two cuts. Be careful - there is no guard. Replace guard as soon as the rabbeting is complete.



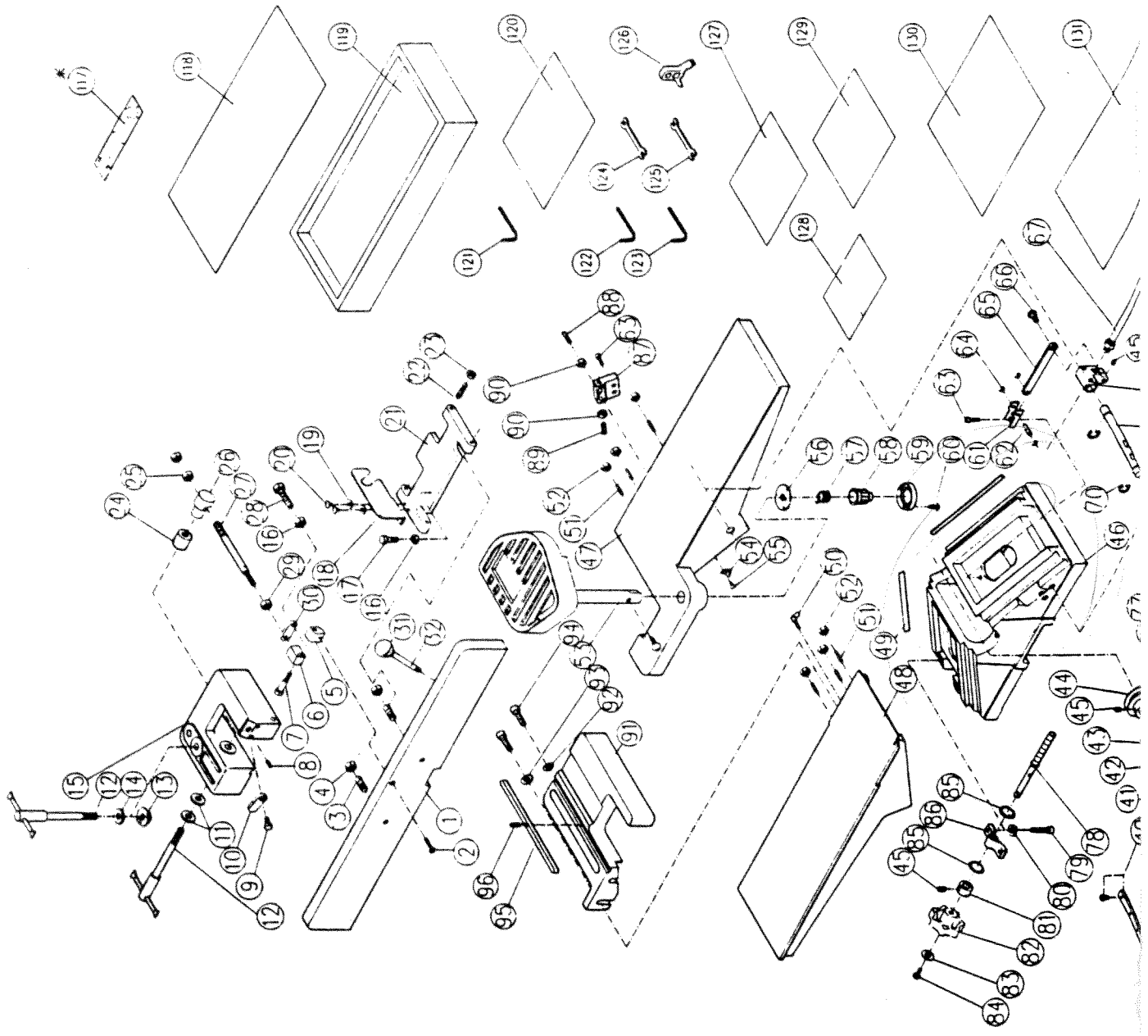
**Cutting a rabbet. Work carefully.
Guard cannot be used.**

(Continued on page 12)

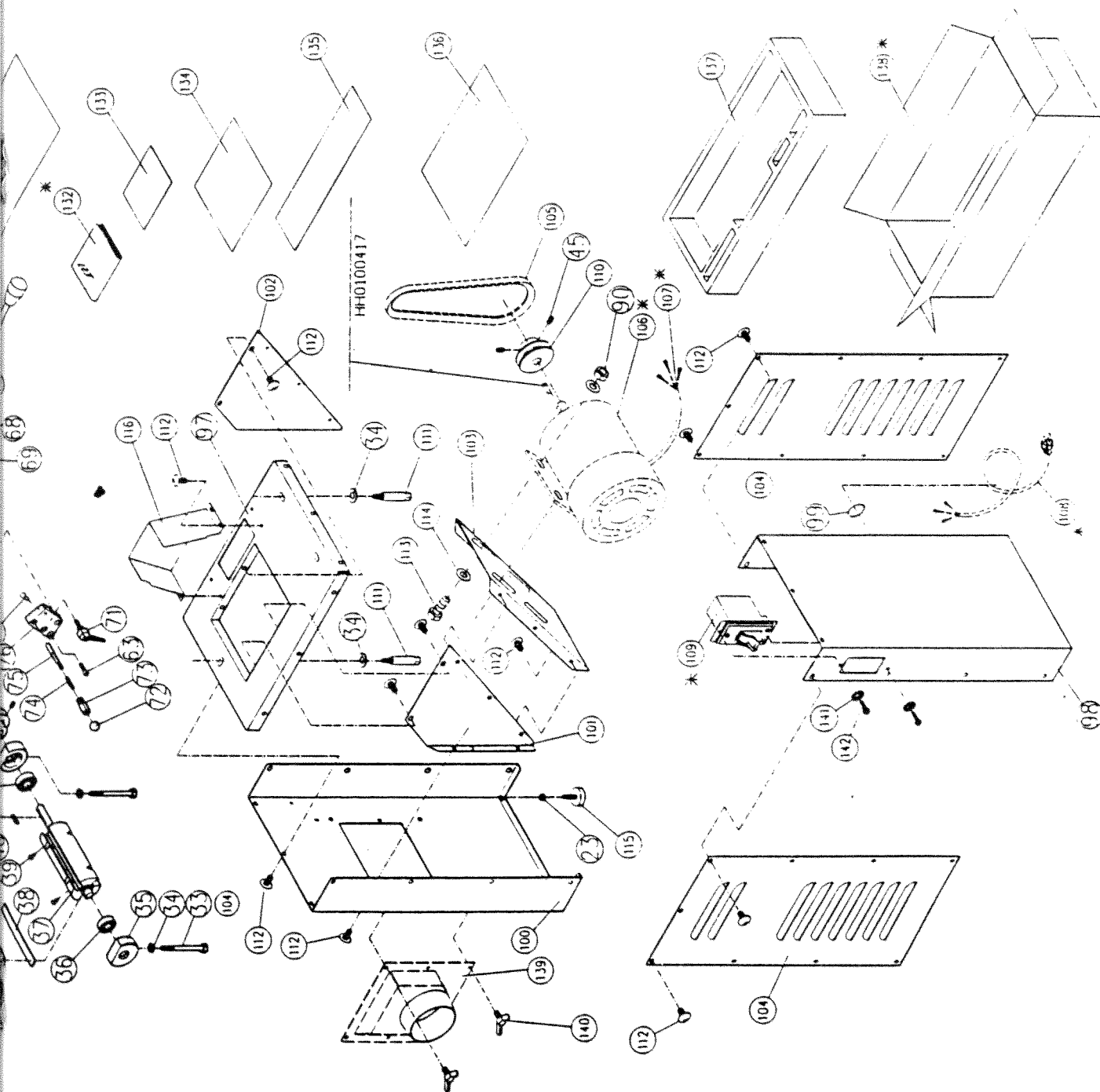
E. JOINTER STAND



F. PARTS ILL



ILLUSTRATION



G. B706N JOINTER PARTS LIST

PARTS NO	DESCRIPTION	QTY.	PARTS NO	DESCRIPTION	QTY.
P706N1	FENCE	1	P706N39	SCREW	6
P706N2	SCREW	1	P706N40	GIB SET	4
P706N3	BOLT	2	P706N41	KEY	1
P706N4	SCREW	2	P706N42	⁶²⁰³² BEARING	1
P706N5	CONNECTOR	1	P706N43	BEARING BASE	1
P706N6	CONNECTOR	1	P706N44	PULLEY	1
P706N7	SCREW	1	P706N45	SCREW	7
P706N8	PIN	2	P706N46	BASE	1
P706N9	SCREW	1	P706N47	WORKING TABLE	1
P706N10	LOCK NUT	1	P706N48	WORKING TABLE	1
P706N11	WASHER	2	P706N49	GIB	2
P706N12	SCREW	2	P706N50	SCREW	1
P706N13	NUT	1	P706N51	SCREW	6
P706N14	WASHER	1	P706N52	SCREW	6
P706N15	BASE	1	P706N53	GUARD SET	1
P706N16	SCREW	2	P706N54	INDEX	1
P706N17	SCREW	1	P706N55	SCREW	1
P706N18	BRACKET	1	P706N56	WASHER	1
P706N19	WASHER	2	P706N57	SPRING	1
P706N20	SCREW	2	P706N58	SPRING TABLE	1
P706N21	BRACKET	1	P706N59	COVER	1
P706N22	SCREW	4	P706N60	SCREW	3
P706N23	SCREW	8	P706N61	LOCK BASE	1
P706N24	SPACER	1	P706N62	SPINDLE	1
P706N25	SCREW	1	P706N63	CAP SCREW	6
P706N26	BRACKET	1	P706N64	E RING	3
P706N27	SHAFT	1	P706N65	SHAFT	1
P706N28	SCREW	1	P706N66	SCREW	1
P706N29	SCREW	1	P706N67	ROD SET	1
P706N30	CONNECTOR	1	P706N68	BLOCK	1
P706N31	HANDLE POINT	1	P706N69	SHAFT	1
P706N32	HANDLE BAR	1	P706N70	E RING	2
P706N33	SCREW	2	P706N71	HANDLE	1
P706N34	SPRING WASHER	5	P706N72	BALL	1
P706N35	BEARING BASE	1	P706N73	SPRING BASE	1
P706N36	BEARING ⁶²⁰²²	1	P706N74	SPRING	1
P706N37	CUTTER HEAD	1	P706N75	PIN	1
P706N38	BLADE	3	P706N76	BLOCK	1

G. B706N JOINTER PARTS LIST

PARTS NO	DESCRIPTION	QTY.	PARTS NO	DESCRIPTION	QTY.
P706N77	RIVET	2	P706N115	SCREW	1
P706N78	SCREW	1	P706N116	COVER	
P706N79	CAP SCREW	2	P706N117	NAME PLATE	
P706N80	SPRING WASHER	6	P706N118	PACKAGING	
P706N81	SLEEVE	1	P706N119	PACKAGING	
P706N82	HAND WHEEL	1	P706N120	PACKAGING	
P706N83	WASHER	1	P706N121	HEX KEY WRENCH	1
P706N84	SCREW	1	P706N122	HEX KEY WRENCH	1
P706N85	SPACER	2	P706N123	HEX KEY WRENCH	1
P706N86	BLOCK	1	P706N124	WRENCH	1
P706N87	BASE	1	P706N125	WRENCH	1
P706N88	SCREW	1	P706N126	GAUGE	1
P706N89	SET SCREW	2	P706N127	PACKAGING	
P706N90	SCREW	8	P706N128	PACKAGING	
P706N91	BLOCK	1	P706N129	PACKAGING	
P706N92	WASHER	1	P706N130	PACKAGING	
P706N93	WASHER	1	P706N131	PACKAGING	
P706N94	CAP SCREW	1	P706N132	MANUAL	
P706N95	GIB	1	P706N133	PACKAGING	
P706N96	PIN	1	P706N134	PACKAGING	
P706N97	UPPER PLATE	1	P706N135	PACKAGING	
P706N98	FRONT PLATE	1	P706N136	PACKAGING	
P706N99	PROTRACTOR	1	P706N137	PACKAGING	
P706N100	BACK PLATE	1	P706N138	PACKAGING	
P706N101	CONNECT PLATE (RIGHT)	1	P706N139	DUST OUTLET	1
P706N102	CONNECT PLATE (LEFT)	1	P706N140	SCREW	4
P706N103	MOTOR PLATE	1	P706N141	STAR WASHER	2
P706N104	PLATE	2	P706N142	SCREW	2
P706N105	BELT	1			
P706N106	MOTOR				
P706N107	MOTOR WIRE				
P706N108	POWER WIRE				
P706N109	SWITCH				
P706N110	PULLEY	1			
P706N111	SCREW	3			
P706N112	WASHER	42			
P706N113	SCREW	4			
P706N114	WASHER	8			

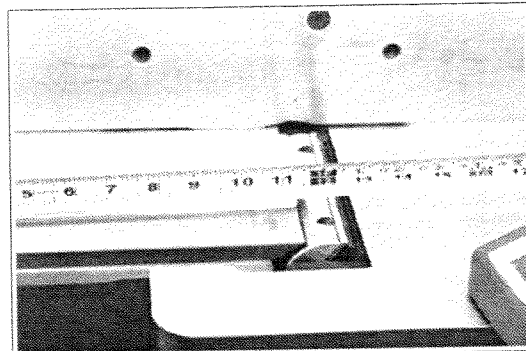
D. OPERATION AND ADJUSTMENT (continued from page 6)

HOW TO HONE JOINTER KNIVES

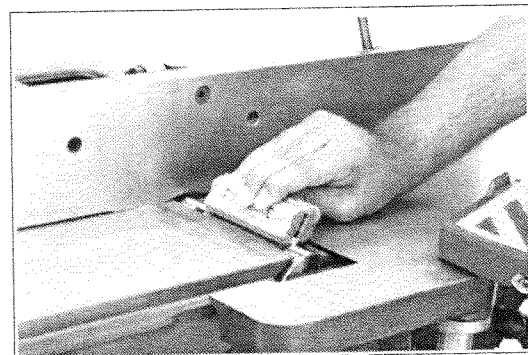
Jointer knives must be kept keen and sharp or your results will be less than satisfactory. Dull knives cause vibration and increase the chances for dangerous "kickbacks".

If the knives are simply dull and not nicked you can restore the edge without removing them from the jointer. Knives can be honed a number of times this way before they need to be reground. If your knives are nicked and you cannot take the time to regrind them, you can extend their use fullness by removing one knife and resetting it so the nicks don't line up with the other two knives. Then proceed to hone with our B1659 Honing Jointer Knife Tool.

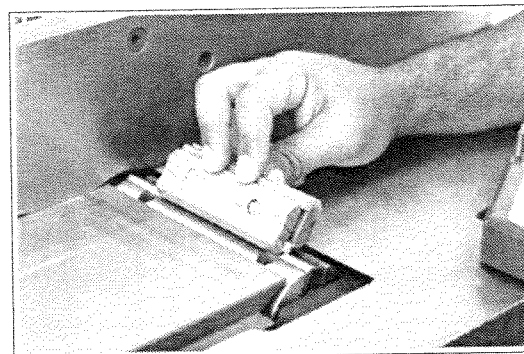
1. Disconnect power supply to machine.
2. Remove the fence and guard and lower the infeed table. Carefully clean the cutter head and knives with mineral spirits to remove pitch and gum.
3. Wedge a small piece of wood between the cutter head and the frame to stop the cutter head from turning.
4. (PIC.) (end view of hone to arrows to fine and coarse) Put a few drops of light oil on the stones. Touch the finer grit to the bevel so it touches the stone along its entire length. Draw it across the knife a few times. Do the same thing with the other stone except along the back of the knife. When the knife is honed satisfactorily proceed with the other two knives.
5. Clean the cutter head again to remove and oil and slurry. Re-install the fence and guard and adjust the tables.
6. Reconnect the power supply and make a few trial cuts.



Setting cutter head to hone knives.



Honing the knives with a honing stone.



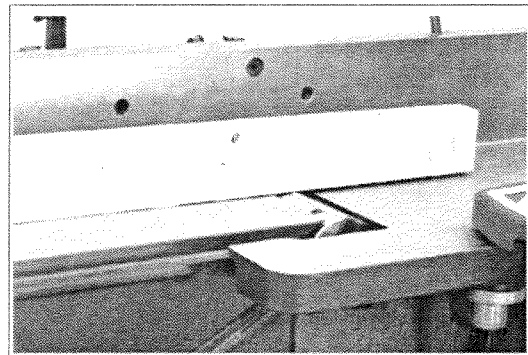
Be careful. The knives will be razor sharp when honed.

D. OPERATION AND ADJUSTMENT (continued)

INSTALLING NEW KNIVES

When the knives have been honed several times, it will be necessary to grind them. We suggest that because of the accuracy required, remove the knives and send them to a sharpening service to have them ground and balanced. The following steps will help in the resetting of the jointer knives.

1. Disconnect electrical power, remove fence and lower infeed table. Clean all parts and apply a light film of oil.
2. Place a knife and gib in position and tighten the gib screws just enough to hold them in place.
3. Adjust the position of the knife so that the heel extends above the cutter head about $1/16"$. Shift the horizontal position of the knife so that the end extends about $1/32"$ beyond the edge of the outfeed table.
4. Adjust the outfeed table to align with the high point of the knife.
5. Place a bar magnet on the outfeed table and over the knife. Loosen the knife and allow the magnet to hold it in position. Roll the cutter head so the edge of the knife is above the center line (high point of the knife rotation). Tighten the gib screws. Perform this operation on each end of the knife.
6. Repeat these operations for the other two knives.
7. Check the height of each knife with a straightedge as shown. Lower the outfeed table slightly and with the straightedge in position, roll the cutter head so the knives will move the straightedge about $1/8"$. Make a mark at the edge of the table for each knife movement. The distance between these marks should be equal. re-adjust any knife that is high or low. Check the height of the knives with a wooden straightedge. The cutter head is turned by hand. Use a 3mm hex wrench for blade height screws and each knife should move the straightedge an equal amount.
8. Check the height at both ends of each knife.
9. Tighten each gib screw securely, going over the entire cutter head several times.
10. Adjust the outfeed table level with the highest point of blade and replace fence and guard. Turn on the machine and make several trial cuts.

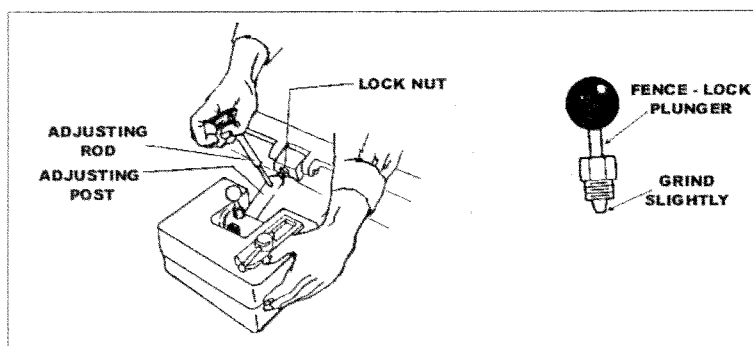


DEPTH OF CUT ADJUSTMENT

Raise or lower the infeed table to change the depth of cut. Remember to loosen the butterfly screws before adjusting and secure after the adjustment is made.

SQUARING THE FENCE TO THE TABLE

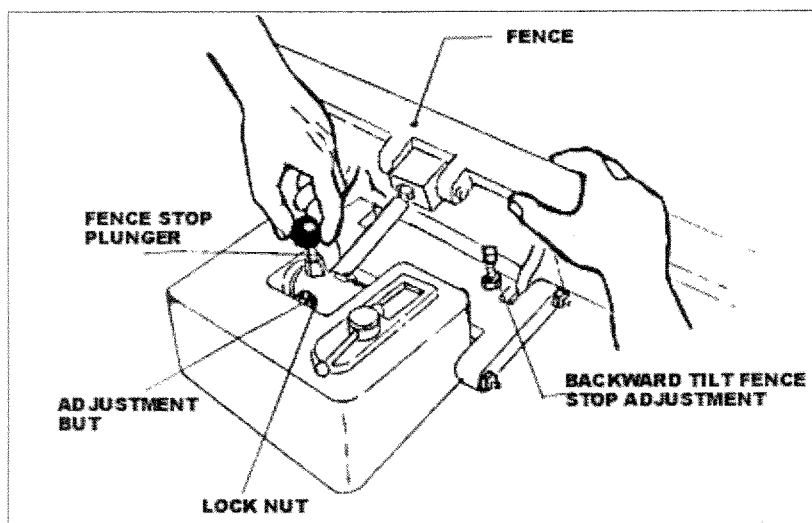
When the outfeed table height has been adjusted, place a small square on the outfeed table near the cutter head. Loosen the lock nut and turn the adjusting post if necessary to square the fence. Tighten lock nut.



If play is evident in the fence, remove the plunger mechanism and if wear is evident in the conical retainer, grind slightly to properly engage the groove in the top rod. Replace the plunger assembly and tighten the jam nut.

D. OPERATION AND ADJUSTMENT (continued)

FENCE TILT ADJUSTMENT



The fence is tilted forward and backward by pulling up on the fence lock plunger. The backward stop is a machine screw with a jam nut on the mounting hinge. The forward stop adjustment is a nut and jam nut on the adjusting post: Adjust as necessary and secure with the jam nuts to attain exact 45° settings.

STRAIGHTENING A WARPED FENCE

The fence furnished with your jointer is a finished casting. Under certain conditions it is possible that the fence may become warped. If fence is high (bowed) in the center, remove fence and place face up on the floor on two 4" pieces of wood (2" x 4" blocks will suffice). Gently apply pressure to the center of the fence with your foot increasing pressure gradually until you feel the fence "give" slightly. The fence should be perfectly straight. Repeat if necessary.

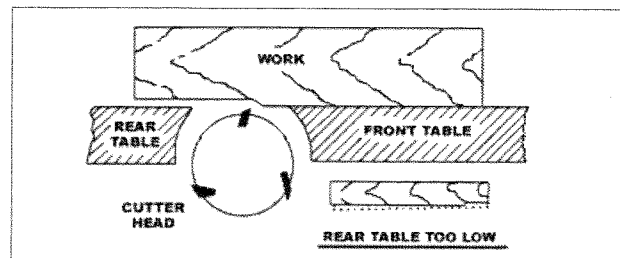
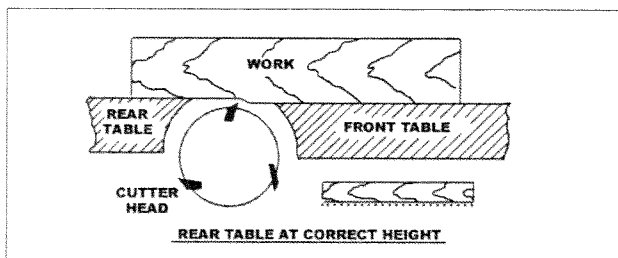
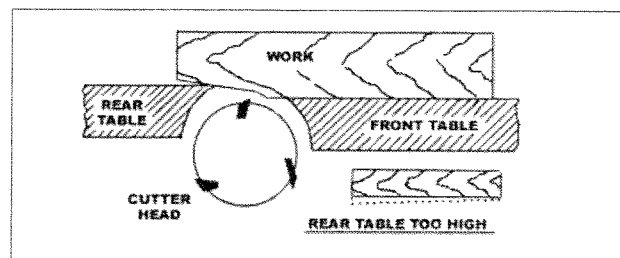
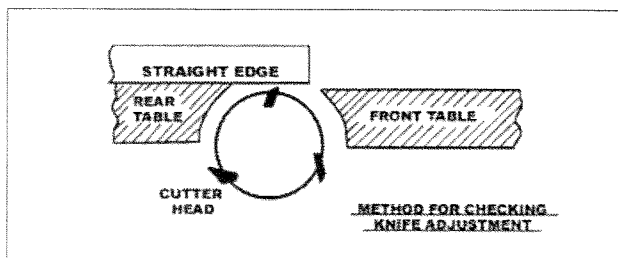
If fence is low in the center, place on the floor face down and repeat the above procedure - REMEMBER, stop when you feel the fence "give".

Should your fence be twisted, the following steps will return it to its original shape. Clamp one end of fence to a wood vise and sandwich other end between two 2" boards and gently "twist" the fence. when the fence "gives", stop applying pressure and check fence with a straight edge.

GUARD REMOVAL

Loosen lock nut on rabbeting bracket and loosen the lock screw. The guard assembly lifts out to allow rabbeting. When replaced, apply tension to the spring by turning the knob on top of the guard. Lock with the set screw and lock nut.

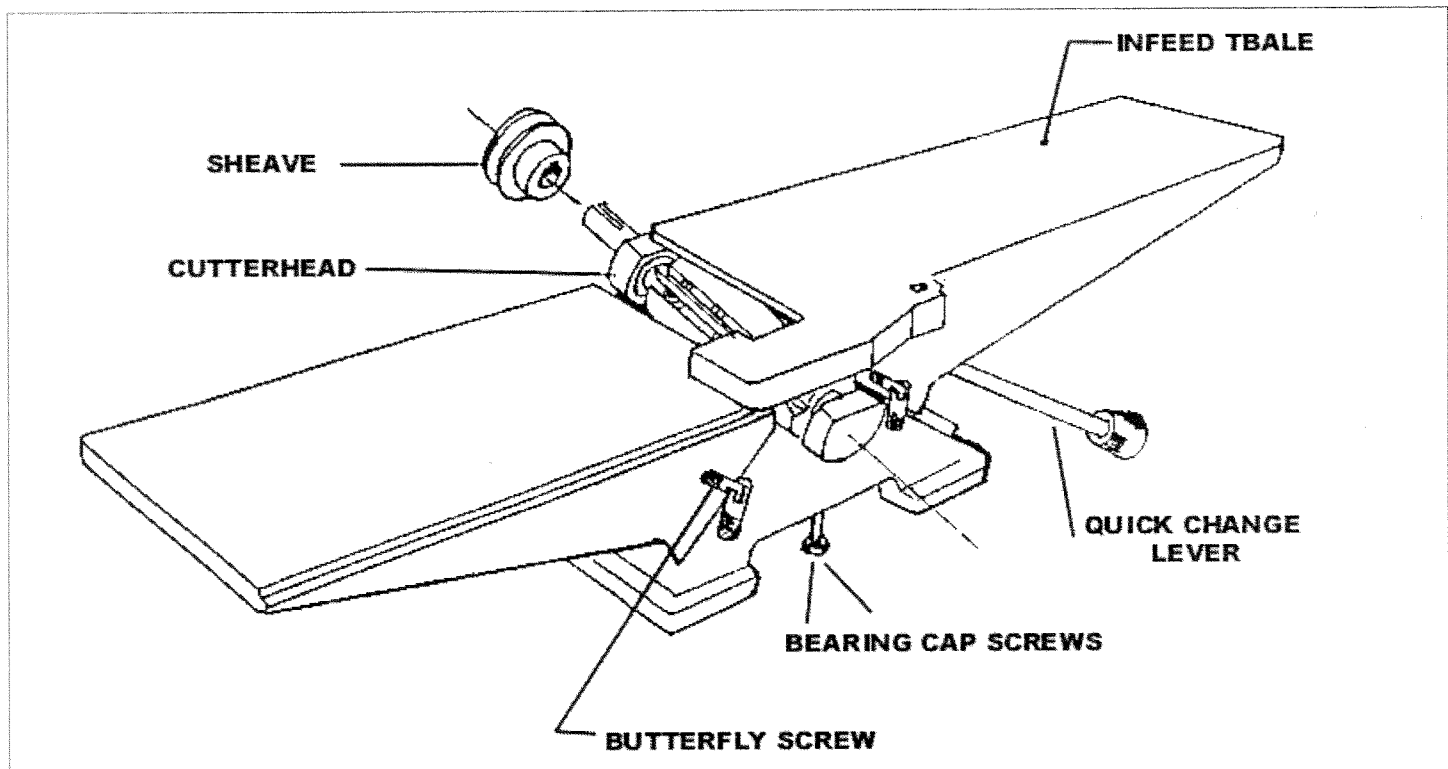
REAR TABLE ALIGNMENT



CUTTER HEAD REMOVAL

1. Disconnect power supply.
2. Remove fence.
3. Remove belt.
4. Lower both infeed and outfeed tables to the maximum
5. Remove the two bearing cap screws.
6. From the drive end, slide the cutter head assembly out.
7. To install reverse the procedure.

NOTE - WHEN REASSEMBLED LEVEL THE OUTFEED TABLE



H. TROUBLE SHOOTING GUIDE

PROBLEM!! JOINTER WILL NOT START

FAULT	SOLUTION
1. Jointer not plugged in.	1. Plug in jointer.
2. Fuse blown or circuit breaker tripped.	2. Replace fuse or reset circuit breaker.
3. Cord damaged.	3. Have cord replaced by a certified electrician.

PROBLEM!! MACHINE DOES NOT COME UP TO SPEED

FAULT	SOLUTION
1. Power cord too light or too long.	1. Replace with proper size cord.
2. Too high feed.	2. Reduce rate of feed.
3. Low voltage current.	3. Contact your electric company.

PROBLEM!! MACHINE VIBRATES EXCESSIVELY

FAULT	SOLUTION
1. Machine not secure on stand.	1. Tighten all mounting hardware.
2. Bad V belts or pulleys.	2. Check V belts and pulleys.
3. Improper motor mounting.	3. Tighten motor mounting.

PROBLEM!! MACHINED SURFACE IS ROUGH

FAULT	SOLUTION
1. Dull jointer knives.	1. Knives may be honed or removed and reground.
2. Improper feed direction.	2. Feed with the grain of the wood.
3. Feed is too fast.	3. Reduce rate of feed.

PROBLEM!! MACHINED SURFACE NOT SQUARE

FAULT	SOLUTION
1. Fence not square.	1. Adjust fence to 90°

PROBLEM!! MACHINED SURFACE IS NOT PARALLEL

FAULT	SOLUTION
1. Rear table below the cutter.	1. Adjust rear table to be level with cutter head.