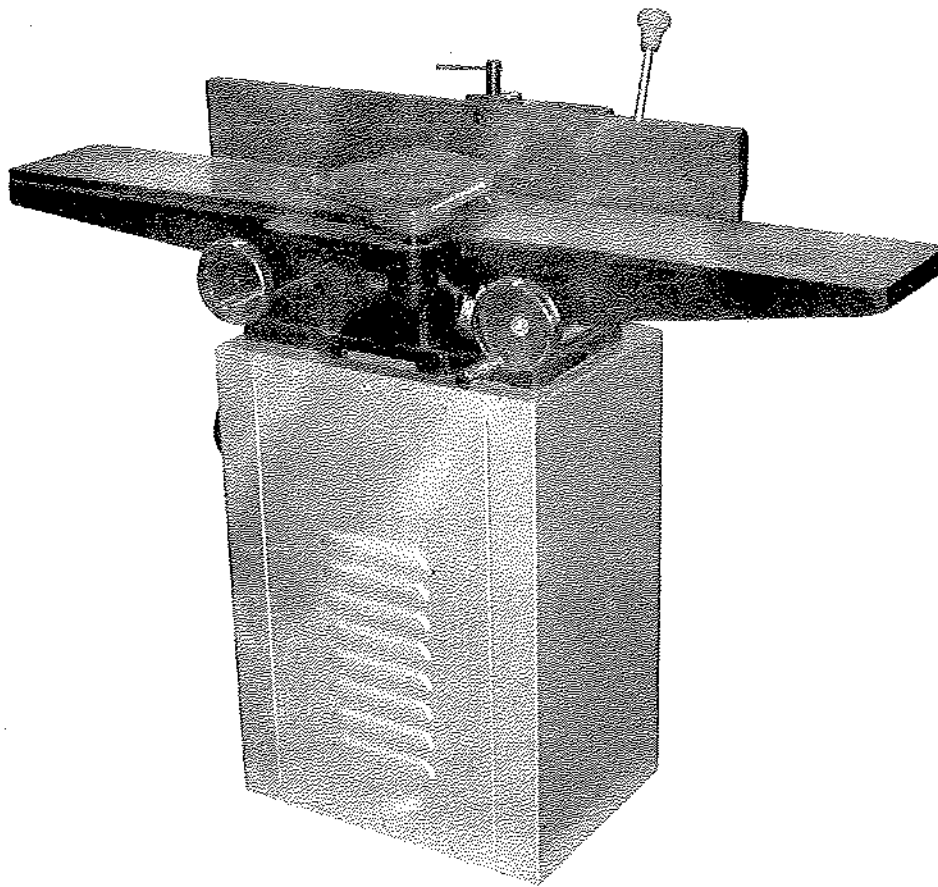


W622 PT161

2TA---

10/4/06

6" PLANER JOINTER (J6G)



JOINTER SHOWN WITH STEEL STAND AND ELECTRICALS

SAFETY RULES FOR ALL POWER TOOLS

As with all electrical power tools it is important to read and follow the safety guide in this instruction manual. By using the tool in the manner for which it is designed and by following the safety precautions, it will considerably lessen the possibility of personal injury.

BEFORE PLUGGING IN YOUR POWER TOOL

1. Read the instruction manual fully and understand the applications and potential safety hazards. Do not modify this tool without expert advice.
2. **GROUND ALL TOOLS.** If tool is equipped with a 3 prong plug it should only be used with a 3 hole receptacle, if an adaptor is used for 2 prong receptacle, the adaptor lug must be attached to a known ground.
DO NOT REMOVE THE 3RD PRONG.
3. **SAFETY GUARDS.** Are there for your protection, ensure they are correctly fitted and in place.
4. **ACCIDENTAL STARTING.** Make sure switch is "OFF" before plugging in your tool.
5. **ADJUSTING KEYS** Make sure all keys and tools are clear to work area.
6. **KEEP WORK AREA CLEAN.** Cluttered work area invite injuries.
7. **WORKING APPAREL.** Make sure you have no loose clothing such as ties, jewelry that could get caught in moving parts. An overall is recommended to be worn during operation with sturdy rubber footwear.
8. **SAFETY GOGGLES.** Use an approved safety goggles or glasses to protect your eyes. A dust mask should also be used during dusty operations.
9. **SECURE WORK.** Firmly secure work piece in a vice clamp or jig. Avoid getting your hands close to moving parts.
10. **WORK AREA.** Keep your surrounding work area clean, dry and illuminated.
11. **KEEP CHILDREN AWAY.** Before operation ensure children or visitors are kept at a safe distance.
12. **TOOL LOCATION** Whether a floor or bench model make sure your tool is on a level surface. Bench models should be bolted down.

DURING OPERATION

1. **USE CORRECT TOOL-** Make sure you are using the tool in the manner for which it is designed.
2. Do not force your tool it will operate correctly and get better results using normal pressure.
3. **DON'T OVERREACH.** Keep a proper footing and balance at all times.
4. **TOOL MAINTENANCE.** A sharp and clean tool will give you the best performance. Follow instructions for lubricating.
5. **CHANGING ACCESSORIES.** Make sure machine is switched "OFF" before changing accessories and make sure the accessories are designed for your tool.
1. **DISCONNECT YOUR MACHINE.** So that cleaning.
2. **CLEAN YOUR MACHINE** and working area and put all tools and accessories away out of the reach of children.
3. **DAMAGED PARTS.** Before further use ensure replace faulty or damaged parts.
4. **SERVICING.** Keep your tool lubricated and clean, all moving parts align and in good condition.
5. **LOCK UP YOUR TOOL** in an area where children or visitors can not gain access.
With proper care and maintenance your power tool can give you years of dependable service.

AFTER USE

ADDITIONAL SAFETY RULES FOR JOINTERS

1. **KEEP** cutterhead sharp and free of all rust and pitch.
2. **ALWAYS** use a push block when jointing stock that does not give a reasonable distance of safety for your hands.
3. **NEVER** pass hands directly over cutterhead.
4. **ALWAYS** make sure exposed cutterhead behind the fence is guarded, especially when jointing near the edge.
5. **DO NOT** perform jointing operations on material shorter than 8 inches, narrower than 3/4inch, or less than 1/4inch thick.

6. DO NOT perform planing operations on material shorter than 8 inches, narrower than 3/4inch, wider than 4 inches, or thinner than 1/2inch.
7. MAINTAIN the proper relationship of infeed, and outfeed, table surfaces and cutterhead knife path.
8. SUPPORT the wood piece adequately at all times during operation, maintain control of the work at all times.

9. DO NOT back the work toward the infeed table.
10. DO NOT attempt to perform an unnormal or little-used operation without sturdy and the use of a dequate hold-down/push blocks, jigs, fixture, stops, etc.
11. DO NOT make cuts deeper than 1/8" in a single pass. On cuts more than 1 1/2" wide, adjust depth of cut to 1/16" or less to avoid overloaing machine and to minimize chance of kick-back.

UNPACKING AND CLEANING

Carefully unpack the jointer, stand, and all loose items from the cartons. Remove the protective coating from the machined surfaces of the jointer. This coating may be removed with a soft cloth moistened with kerosene (do not use acetone, gasoline or lacquer thinner for this purpose). After cleaning, cover all unpainted surfaces with a good quality paste wax.

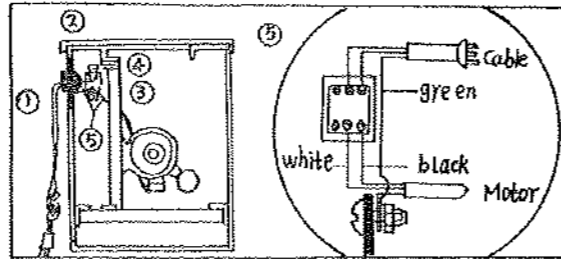


Fig. A

CHASSIS ASSEMBLY

Fix the chassis according to the chassis assembly drawing. (as shown in figure two)

ELECTRICITY PART ASSEMBLY

Electrical machinery, switch and power source line are all fixed on the chassis.

First fix electrical machinery and power source line on the chassis, and then join electrical machinery line to the switch line dots one and three and join power source line to the switch to the side board. Fix electrical machinery line and ground wire of electrical source as shown fig. A (surfaces are yellow and green) on the side board of the chassis, using the screw and screw nut. (as shown in figures A and B) Fig. A

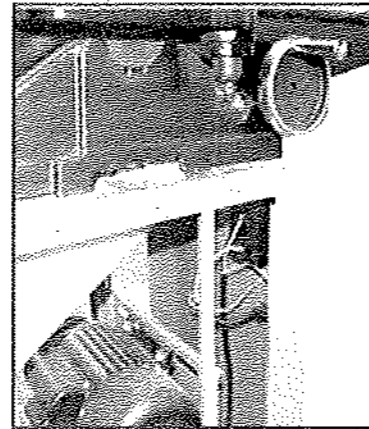


Fig. B

ASSEMBLING JOINTER TO STAND

1. When assembling the jointer to the stand, the infeed of the jointer is to be on the end of the stand indicated as (1) Fig. C. The three holes (3) are used for mounting the jointer to the stand.
2. Three hex head cap screws and lock washers are used to fasten the jointer to the stand. Put the three lock washers on the three holes (3) Fig. C. In the stand and thread the screws in the three holes in the base of the jointer.

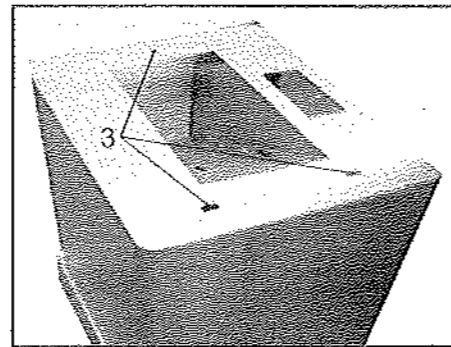


Fig. C

ASSEMBLING BELT ALIGNING PULLEYS AND ADJUSTING BELT TENSION

Assemble the belt (3) to the cutterhead pulley and motor pulley (4), as shown in Fig. D. If necessary loosen the nuts and bolts that fasten the motor to the motor plate and move the motor up or down on the motor plate until correct belt tension is obtained. Correct tension is obtained when there is approximately 1" deflection in the center span of the belt using light finger pressure. Using a staright edge, align the motor pulleys to the cutterhead pulley, if necessary both pulleys can be moved in or out in the shafts or the complete motor plate assembly can be moved in or out to bring the pulleys into alignment.

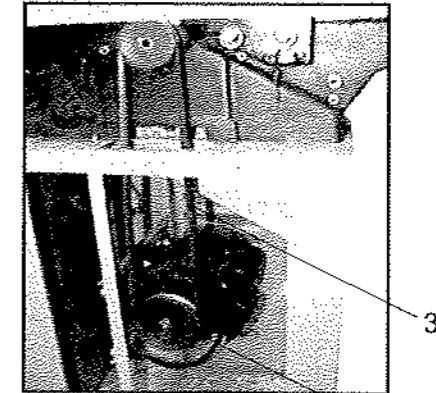


Fig. D

ASSEMBLING BELT AND PULLEY GUARD

The belt and pulley guard (1) is shipped with the stand. Simply assemble it to the stand using the two screws and washers (2) as shown in Fig. E.

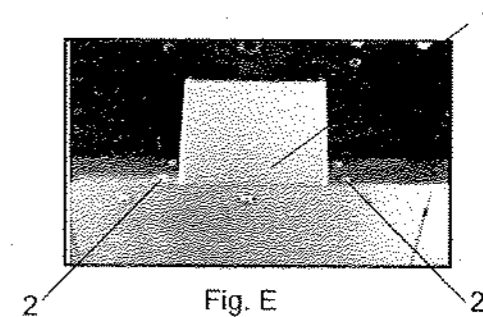


Fig. E

ASSEMBLING CUTTERHEAD GUARD

Assemble the cutterhead guard assembly (1) Fig. F, to the jointer, by inserting the post (2) of the guard assembly down through the hole in the front table. A spring is supplied in the knob assembly (3) Fig. F, that returns the guard over the cutterhead after a cut has been made. To provide spring tension, turn the knob (3) Fig. F, to put tension on the spring before inserting the post (2) down through the hole in the front table, make sure the spring, enclosed in the knob (3), engages the slot provided in the end of the post (2). If spring tension is too much or not enough, remove the guard and post and adjust spring tension accordingly by rotating knob (3).

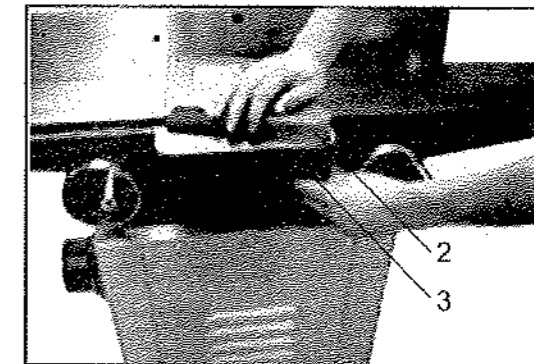


Fig. F

ELECTRICAL CONNECTIONS

IMPORTANT: Make sure the electrical characteristics are the same between the motor nameplate and the power source and make sure the power circuit the jointer will be used on is properly fused, and that the wire size is correct.

IN ALL CASES, MAKE SURE THE RECEPTACLE IN QUESTIONS IS PROPERLY GROUNDED.

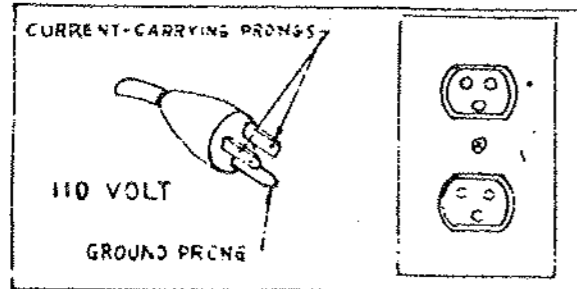


Fig. G

SINGLE PHASE INSTALLATION

If the motor on your machine is wired for 110-V single phase, the power cord is equipped with a plug that has two flat, parallel current - carrying prongs and one longer round or "U" -shaped, ground prong which requires a mating 3-conductor grounded type receptacle as shown in Fig. G.

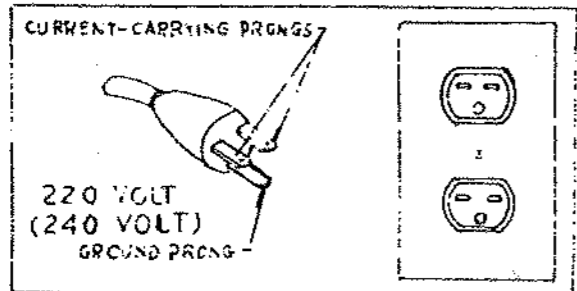


Fig. H

If the motor on your machine is wired for 220V(240V) single phase, the power cord is equipped with a plug that has two flat, current - carrying prongs on, and one round or "U" shaped longer ground prong. This is used only with the proper mating 3-conductor grounding type receptacle, as shown in Fig. H. When the three -prong plug on your machine is plugged into a grounded 3-conductor receptacle, the long ground prong on the plug contacts first so the machine is properly grounded before electricity reaches it.

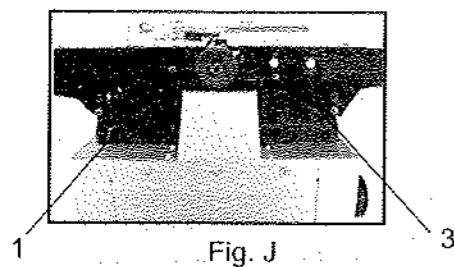


Fig. J

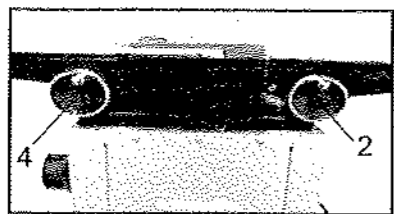


Fig. K

RAISING AND LOWERING TABLES

To raise or lower the front table, loosen lock knob (1) Fig. J and turn handwheel (2) Fig. K. When table is set at desired position, tighten lock knob (1) Fig. J. To raise or lower the rear table, loosen lock screw (3) Fig. J, and turn handwheel (4) Fig. K. When table is set at desired position, tighten lock screw (3) Fig. J.

REAR TABLE AND KNIFE ALIGNMENT

For accurate work in most jointing operations, the rear table must be exactly level with the knives at their highest point of revolution. This means, of course, that the knives must be parallel to the table and project equally from the cutterhead.

To check this alignment proceed as follows:

1. Disconnect the jointer from the power source.
2. Raise or lower the rear table as required, by turning the rear table hand lever, until the rear table is exactly level with the knives of the cutterhead at their highest point of revolution.
3. Place a straight edge on the rear table, extending over the cutterhead as shown in Fig. L.
4. Rotate the cutterhead by hand. The blades should just touch the straight edge. If a knife is too low or too high at either end, loosen the lock screws in the knife slightly, shift the knife until it just touches the straight edge, and tighten the screws securely.

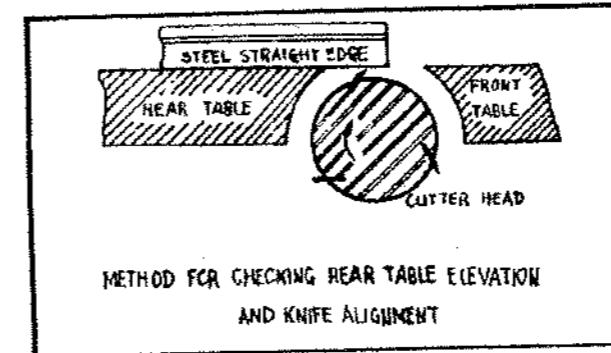


Fig. L

After the rear table has been set at the current height, it should not be changed except for special operations and after sharpening knives.

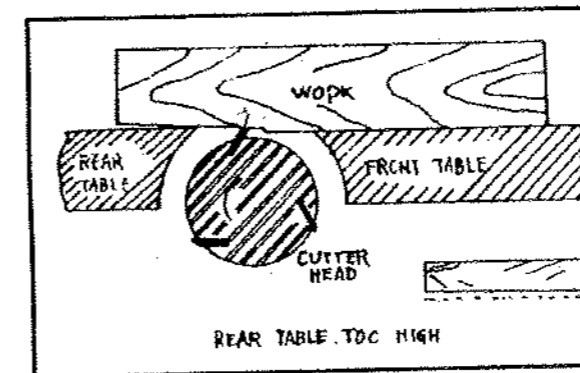


Fig. M

If the rear table is too high, the result will be as shown in Fig. M. The finished surface will be curved.

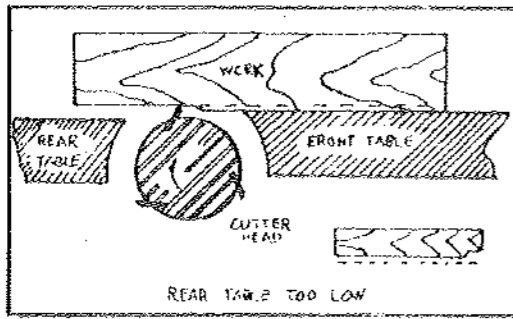


Fig. N

When the rear table is too low the condition will be illustrated in Fig. N. The wood will be gouged at the end of the cut.

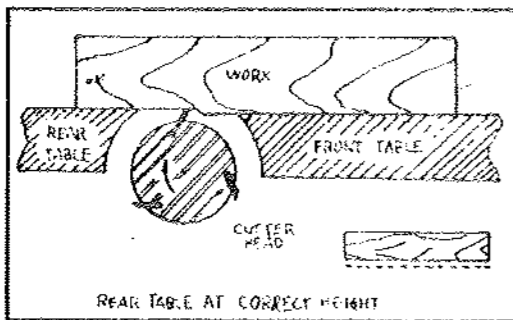


Fig. O

As a final check of the rear table adjustment, run a piece of wood slowly over the knives for 6 to 8 inches; it should rest firmly on both tables, as shown in Fig. O. With no open space under the finished cut.

ADJUSTING TABLE GIBS

"Gibs" are provided to take up all play between the mating dovetail ways of the base and the front and rear tables of your jointer. The "Gibs" are located between the dovetail ways of the front and rear tables and the base. Proper gib adjustment is necessary for the correct functioning of the jointer.

The "gibs" on your machine were adjusted at the factory and should require no further adjustment, however, if it never becomes necessary, adjust the "gibs" proceed as follows:

1. To adjust the outfeed table "gib", loosen all three gib adjusting screws (1) Fig. P, and make sure the rear table lock screw (2) is loose.
2. Proceed to retighten the three gib adjusting screws (1) starting with the top, raise up gently on the outboard edge of the table being adjusted. This will offset any tendency of the table casting to "droop" or "sag" and permit the gib to be brought up to a good secure fit. The in feed table "gib" is adjusted in the same manner.

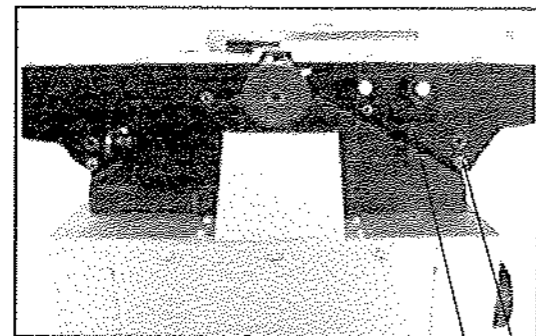


Fig. P

IMPORTANT: Do not leave the screws too loose, it should take a little bit of effort to crank the table up and down. Your jointer is a Finishing Machine and you can't expect to get a very good jointer finish if the table is set loose and sloppy.

SETTING KNIVES

If the knives are removed from the head for replacement or regrinding, care must be used in re-setting them as follows.

1. DISCONNECT MACHINE FROM POWER SOURCE.
2. Place a knife in its groove so that the rear edge of the bevel is $1/16$ " from the surface of the cutterhead.
3. Put setting lock-bar into place and tighten lock screws lightly.
4. Place a knife setting bar made of a piece of hardwood, approximately 12" long, jointed straight on one edge, on the rear table, as shown in Fig. Q.
5. Rotate head backwards by hand and adjust blade until it just touches the bar.
6. Using bar, check blade at each end so that it is parallel to table top and tighten the screws.
7. Insert the other two knives and repeat above instructions.

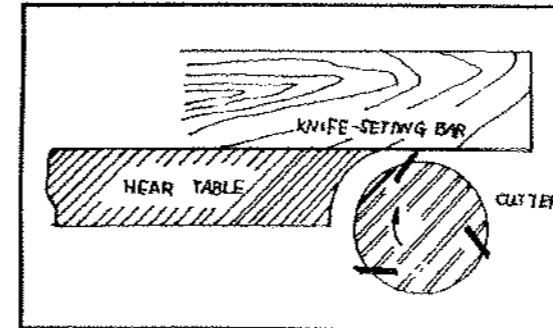


Fig. Q

OPERATION

The following directions will give the beginner a start on jointer operation. Use scrape pieces of lumber to check settings blades and to get the feel of the operations before attempting regular work.

ALWAYS USE GUARD AND KEEP HANDS AWAY FROM CUTTERHEAD.

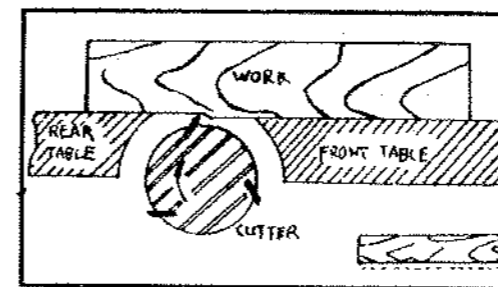


Fig. R JOINTING AN EDGE

This is the most common operation for the jointer set the guide fence square with the table. Depth of cut should be the minimum required to obtain a straight edge, hold the rest face of the piece firmly against the fence throughout the feeding.

JOINTING WARPED PIECES

If the wood to be jointed is dished or warped, take light cuts until the surface is flat. Avoid forcing such material down against the table; excessive pressure will spring it while passing the knives, and it will spring back and remain curved after the cut is completed.

JOINTING SHORT OR THIN WORK

When jointing short or thin pieces, use a push block to eliminate all danger to the hands. Two types are shown in Fig. S. They are easily made from scrape material.

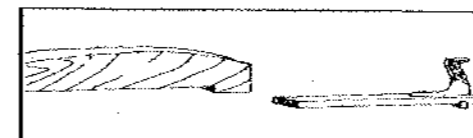


Fig. S

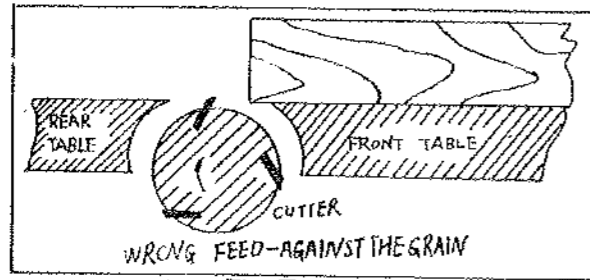


Fig. T

DIRECTION OF GRAIN

Avoid feeding wood into the jointer against the grain as shown in Fig. T. The result will be chipped and splintered edges.

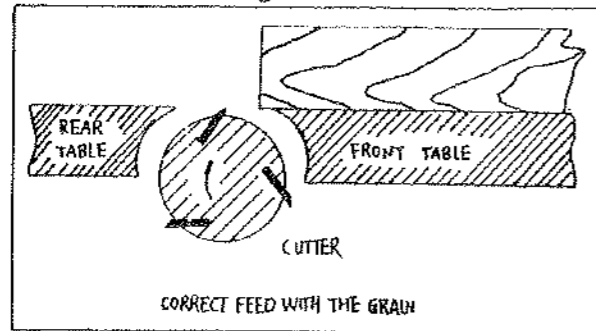


Fig. U

Feed with the grain as in Fig. U. To obtain a smooth surface.

BEVELING

To cut a bevel, lock the fence at the required angle and run the wood across the knives while keeping it firmly against the fence and tables. Several passes may be necessary to arrive at the desired result.

When the angle is small, there is little difference whether the fence is tilted to the right or left. However, at greater angles approaching 45 degrees, it is increasing difficult to hold the wood properly when the fence is tilted to the right. The advantage of the double tilting fence is appreciated under such conditions.

When tilted to the left, the fence forms a V-shape with the tables, and the wood is easily pressed into the pocket while passing it across the knives. If the bevel is laid out on the piece in such directional that this involves cutting against the grain, it will be better to tilt the fence to the right.

TAPER CUTS

One of the most useful jointer operations is cutting an edge to adapter. The method can be used on a wide variety of work. Tapered legs of furniture are a common example.

Instead of laying the piece on the front table, lower the forward end of the wood onto the rear table. Do them very carefully, as the piece will span the knives, and they will take a "bite" from the wood with a tendency to kick-back unless the piece is firmly held. Now push the wood forward as in ordinary jointing. The effect is to plane off all the stock in front of the knives, to increase depth, leaving a tapered surface.

The ridge left by the knives when starting the taper may be removed by taking a very light cut according to the regular method for jointing, with the front table raised to its usual position. Practice is required in this operation, and the beginner is advised to make trial cuts on waste material. Taper cuts over part of the length and a number of other special operations can easily be done by the experienced craftsman.

CUTTERHEAD MAINTENANCE AND REPAIRS

After considerable use, the knives will become dull and it will not be possible to do accurate work. Unless badly damaged by running into metal or other hard material, they may be sharpened as follows.

WHETTING KNIVES

DISCONNECT THE MACHINE FROM POWER SOURCE. Use a fine carborundum stone, cover it partly with paper as indicated in Fig. V, to avoid marking the table. Lay the stone on the front table, lower the table and turn the cutter head forward until the stone lies flat on the bevel of the knife, as shown. Hold the cutter head from turning, and when the bevelled edge of the knife, stroking lengthwise by sliding the stone back and forth across the table. Do the same amount whetting on each of the three blades.

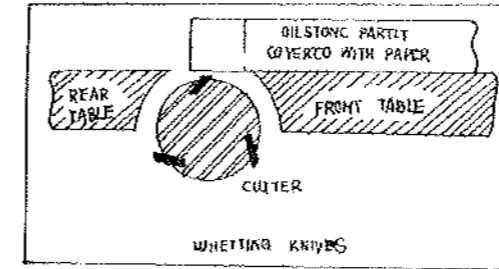


Fig. V

BLADE CARE

Gum and pitch which collects on the blades causes excessive friction as the work continues, resulting in over heating the blades, less efficient cutting, and consequently loss of blade life. Use "Gum and Rust Remover" to wipe this off the blades.

When these blades become dull enough so that it is noticeable when cutting, they should be resharpened. A sharp blade works easier and results in longer blade life. The penalty paid for a dull blade is less blade life and greater wear and tear on all parts of the machine.

In time rust may appear on the table and fence and other parts of the jointer, resulting in less efficiency and accuracy of the machine. Use paste wax which can be applied to prevent rust formation, if however, rust has already formed on these parts use "Rust Remover" which will restore the machine to its original accuracy when applied.

CUTTERHEAD REPAIRS

When the knives of the cutterhead cannot be properly sharpened to produce a nice smooth, clean cut by the methods described above, they must be ground to a new bevel edge. In this case, or when the bearings of the cutterhead need replacement, remove the entire cutterhead with bearings and housing from the housing from the base casting back out the hexagon head cap screw from each bearing housing which is fastened to the machined curved seats of the base casting.

We suggest the customer purchase an additional cutterhead assembly complete with bearings and housing. The extra cutterhead assembly is necessary to keep the machine in operation when the original cutterhead is sent back to the factory for repairs, such as, replacement of bearings, grinding and resetting the knives. The additional cost of an extra cutterhead assembly is justified when maximum production of high quality type work is repaired.

When mounting the cutterhead to the base casting of the jointer, be sure the machined curved seats of the base casting are cleaned free from any dust, dirt, or grease to obtain a good tight fit.

FENCE MOVEMENT

The fence has positive stops at 45° and 90° to allow quick return of the fence to these positions after performing beveling operations at different angle settings. The 90° stop consists of an adjustable bolt and tab that can be rotated out of the way when the fence angle is to be changed. An overview of the fence is shown in Fig. X, below.

IMPORTANT: DO NOT slide the fence across the cutfeed table. Scratching will result.

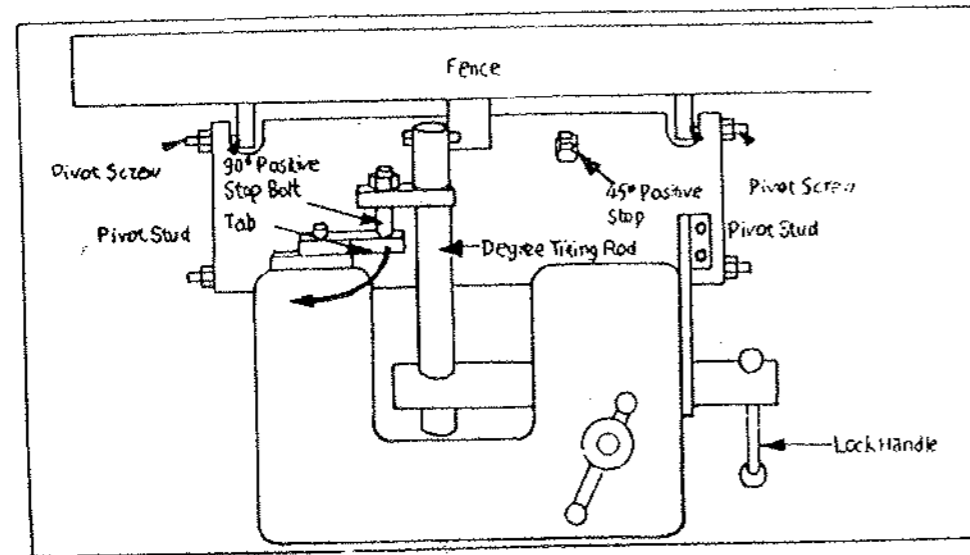


Fig. X

To change the fence angle:

1. Loosen the lock handle.
2. Turn the tab away from the 90° positive stop bolt.
3. Tilt the fence to the desired angle and tighten the lock handle.

To return the fence to 90°

1. Loosen the lock handle.
2. Return the fence to its upright position.
3. Flip the stop tab back to its down position.
4. Move the fence until the 90° positive stop bolt touches the tab.
5. Tighten the lock handle. Over or under tightening than lock handle will affect the final angle of the fence. Check the angle of the fence with a high quality machinist's or try square. Readjust if necessary.

90° STOP ADJUSTMENT

Note: The following procedures for the 90° and 45° stops assume the out feed table has been adjusted correctly. If it has not refer to Section X.C. before proceeding.

1. Place a square on the out feed table fairly close to the cutterhead. See Figure. Y.

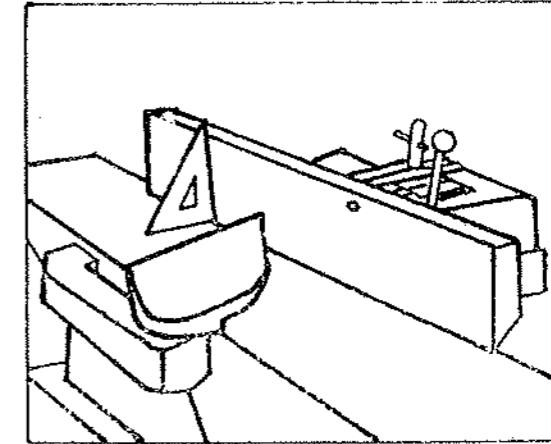


Fig. Y

2. Rough adjustment can be made by loosening the checknut on the degree tilting rod and turning the rod itself. It may be necessary to insert a small rod through the tilting rod for better leverage. To adjust loosen edge of the square evenly. See Figure. 14.
3. Tighten the checknut on the stop bolt and tilt the fence forward then back against the stop.
4. Re-check with the square. Tightening the checknut will move the stop bolt slightly, so some trial and error may be necessary to perfect your settings.

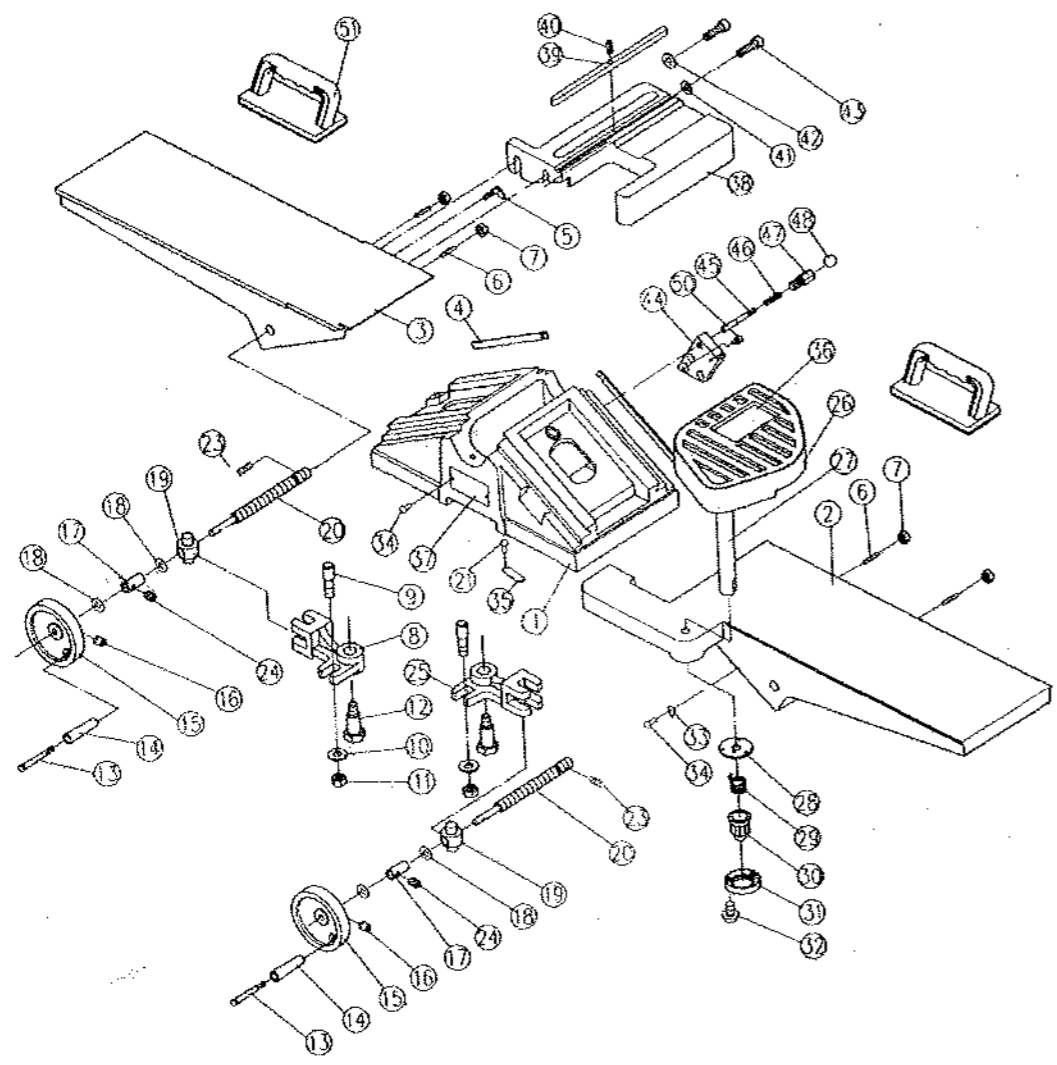
45° STOP ADJUSTMENT

When the fence is properly aligned, it will be perpendicular to the outfeed table. The fence can also be tilted away from the table by loosening the lock handle, lifting up the 90° positive stop tab and moving the fence in the desired direction. See Figure 13 for adjustment locations. To set the 45° tab stop:

1. Loosen checknut and lower fence until it rests on the stop bolt.
2. Using a bevel gauge set to 45° place the heel of the bevel on the cutfeed table and the blade against the fence.
3. If there is a gap between the bevel's blade and the face of the fence turn the stop bolt until the gap is gone.
4. Tighten jamnut. Move your fence forward, then back against the stop. Recheck the stop bolt.

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BED ASSEMBLY



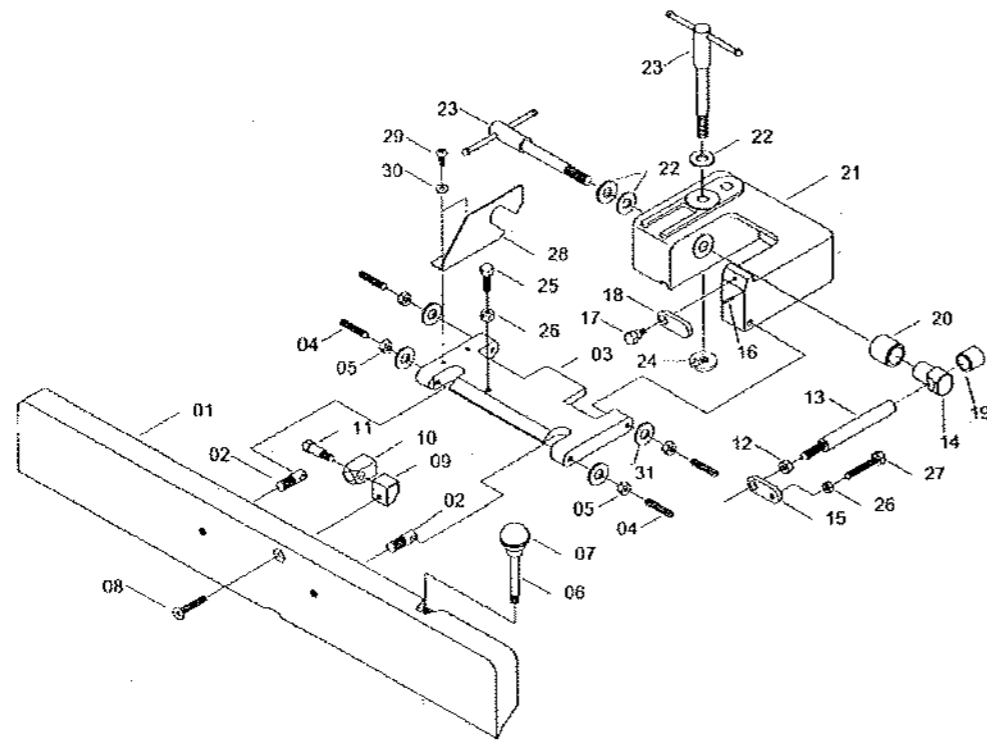
BED ASSEMBLY

1	Base	1
2	Front Table	1
3	Rear Table	1
4	Gib	2
5	Lock Screw	2
6	Set Screw	5
7	Hex Nut	5
8	Ball Crank	1
9	Shoulder Pin	2
10	Washer	2
11	Hex Nut	2
12	Pivot Pin	2
13	Handle Shaft Bolt	2
14	Handle	2
15	Handle Wheel	2
16	Set Screw	4
17	Bushing	2
18	Washer	4
19	Adjusting Nut	2
20	Adjusting Screw	2
21	Rivet	2
23	Lock Knob	2
24	Set Screw	2
25	Ball Crank	1
26	Cutterhead Guard	1
27	Guard Post	1
28	Retaining Washer	1
29	Spring	1
30	Spring Knob	1
31	Retainer	1
32	Screw	3
33	Pointer	1
34	Screw	3
35	Depth Scale	1
36	Warning Label	1
37	Name Plate	1
38	Fence Base Casting	1
39	Key	1
40	Spring Pin	1
41	Washer	1
42	Washer	1
43	Hex Socket Cap Screw	2
44	1/8" Set Block	1
45	Stud	1
46	Spring	1
47	Stud	1
48	Knob	1
50	Hex Socket Cap Screw	3
51	Push Blocks	2

* included in hardware package

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FENCE DIAGRAM & PARTS LIST

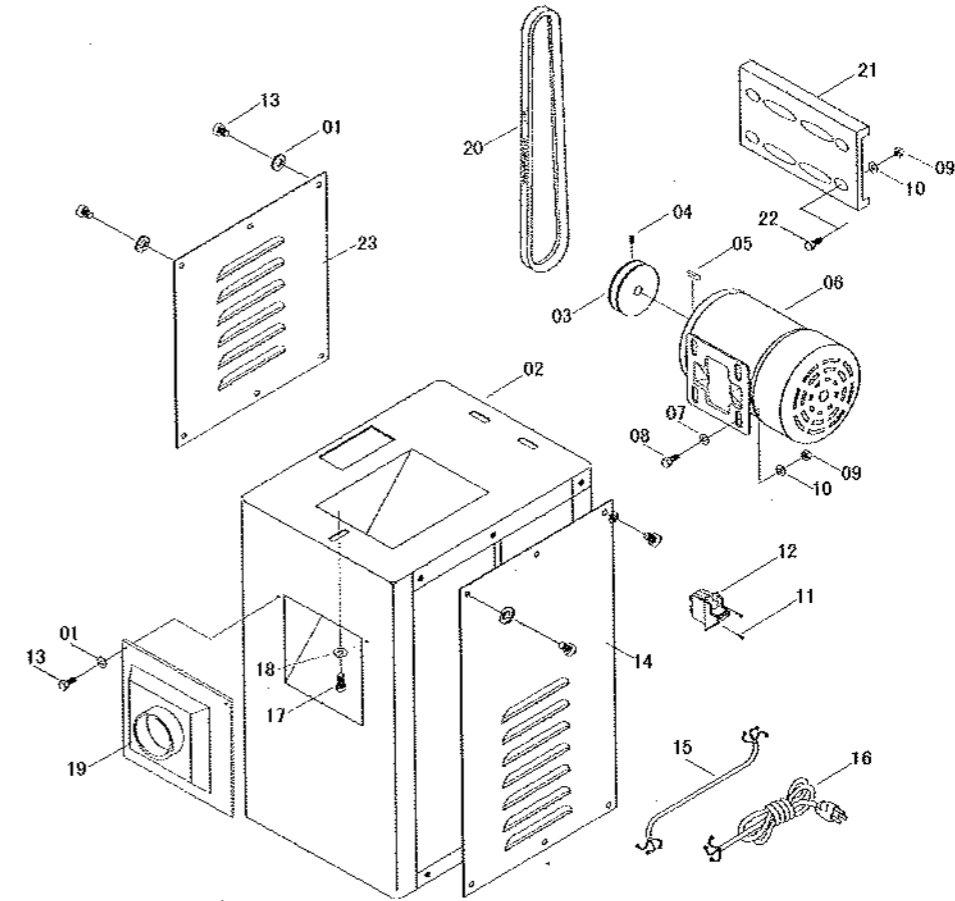


REF	DESCRIPTION	QTY
01	FENCE	1
02	PIVOT STUD	2
03	FENCE HINCE	1
04	SPECIAL SCREW M10×35	4
05	HEX NUT M10	4
06	TILT LEVER	1
07	KNOB M10	1
08	SPECIAL SCREW M8×30	1
09	FENCE BRACKET	1
10	FENCE STOP BRACKET	1
11	SPECIAL CAP SCREW	1
12	HEXNUT M12	2
13	FENCE ADJUST MENTROD	1
14	FENCE TILT CLAMP	1
15	90° STOP TAB	1
16	ROLL PIN4×12mm	2

REF	DESCRIPTION	QTY
17	SPECIAL BOLT	1
18	STOP TAB	1
19	RING	1
20	FENCE TILT SLEEVE	1
21	FENCE BASE	1
22	FLAT WASHER 12	3
23	LOCKING SCREW	2
24	SPECIAL NUT	1
25	HEX BOLT M8×35	1
26	HEX NUT M8	1
27	HEX BOLT M8×35	1
28	FENCE LOCK BRACKET	1
29	SCREW M8×16	2
30	FLAT WASHER 8	2
31	FLAT WASHER 10	4

0200

STAND ASSEMBLY DIAGRAM

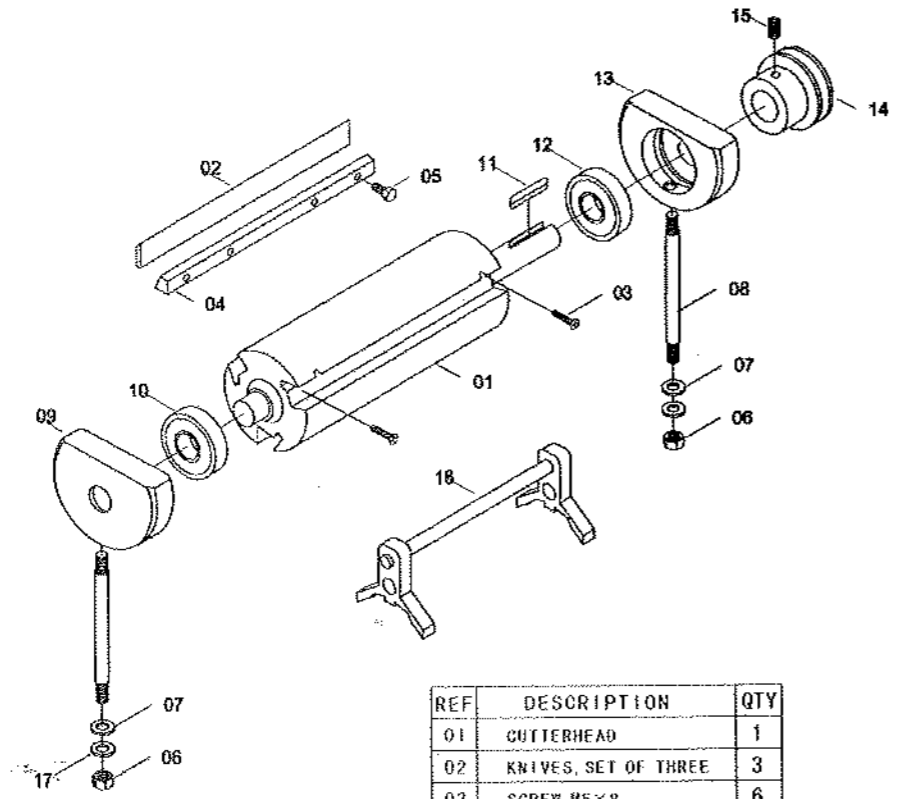


REF	DESCRIPTION	QTY
01	FLAT WASHER 5	16
02	CABINET STAND	1
03	MOTOR PULLEY	1
04	SET SCREW M6×8	1
05	KEY 5×5×25	1
06	MOTOR	1
07	FLAT WASHER 8	8
08	BOLT M8×25	4
09	NUT M8	8
10	LOCK WASHER 8	4
11	PHLP HE SCREW	2
12	SWITCH	1
13	PHLP HD SCREW	16

REF	DESCRIPTION	QTY
14	CABINET DOOR	1
15	MOTOR CORD	1
16	POWER CORD	1
17	BOLT M10×16	3
18	FLAT WASHER 10	3
19	DUST COVER	1
20	V-BELT	1
21	MOTOR PLATE	1
22	SEREW M8×12	4
23	CABINET DOOR	1
24		

0300

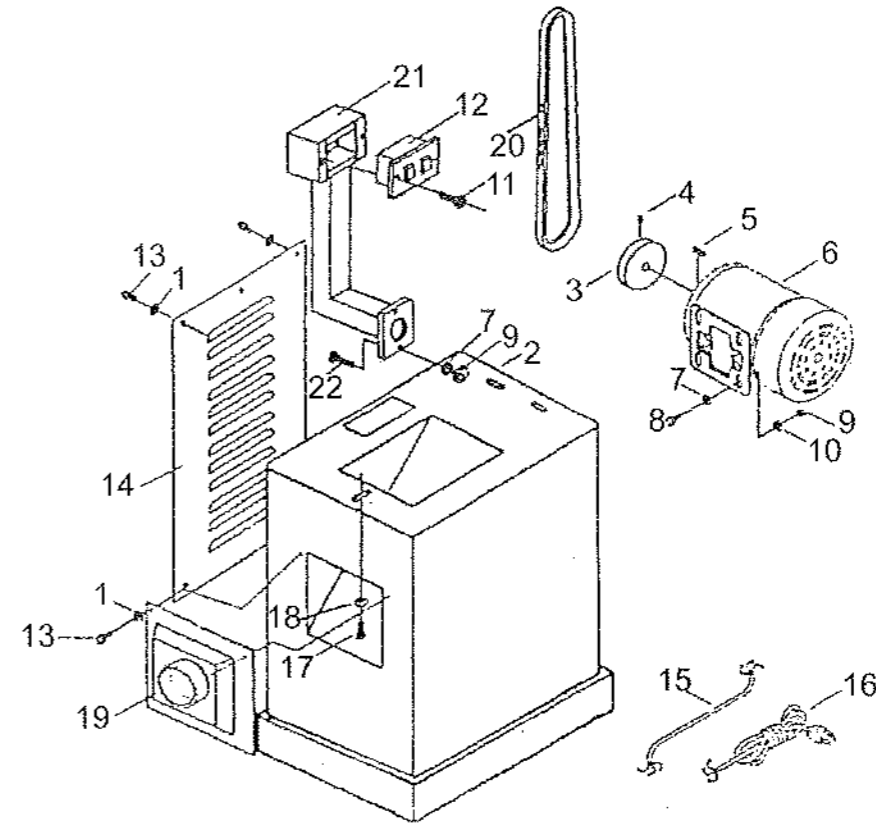
CUTTERHEAD



REF	DESCRIPTION	QTY
01	CUTTERHEAD	1
02	KNIVES, SET OF THREE	3
03	SCREW M5x8	6
04	KNIFE GIB	3
05	GIB BOLT	12
06	HEX NUT M10	2
07	LOCK WASHER 10	2
08	STUD	2
09	BEARING BLOCK	1
10	BEARING E6202	1
11	KEY 5x5x30mm	1
12	BEARING E6203	1
13	BEARING BLOCK	1
14	PULLEY	1
15	SET SCREW M8x8	1
16	KNIFE SETTING GAUGE	1
17	LOCK WASHER 10	2

0400

STAND ASSEMBLY DIAGRA



REF	DESCRIPTION
1	FLAT WASHER 5
2	CABINET STAND
3	MOTOR PULLEY
4	SET SCREW M6*8
5	KEY 5*5*25
6	MOTOR
7	FLAT WASHER 8
8	BOLT M8*25
9	NUT M8
10	LOCK WASHER 8
11	SCREW
12	SWITCH

REF	DESCRIPTION
13	SCREW
14	CABINET DOOR
15	MOTOR CORD
16	POWER CORD
17	BOLT M10*16
18	FLAT WASHER 10
19	DUST COVER
20	V-BELT
21	PEDESTAL SWITCH
22	BOLT M8*16