

Sears owners manual

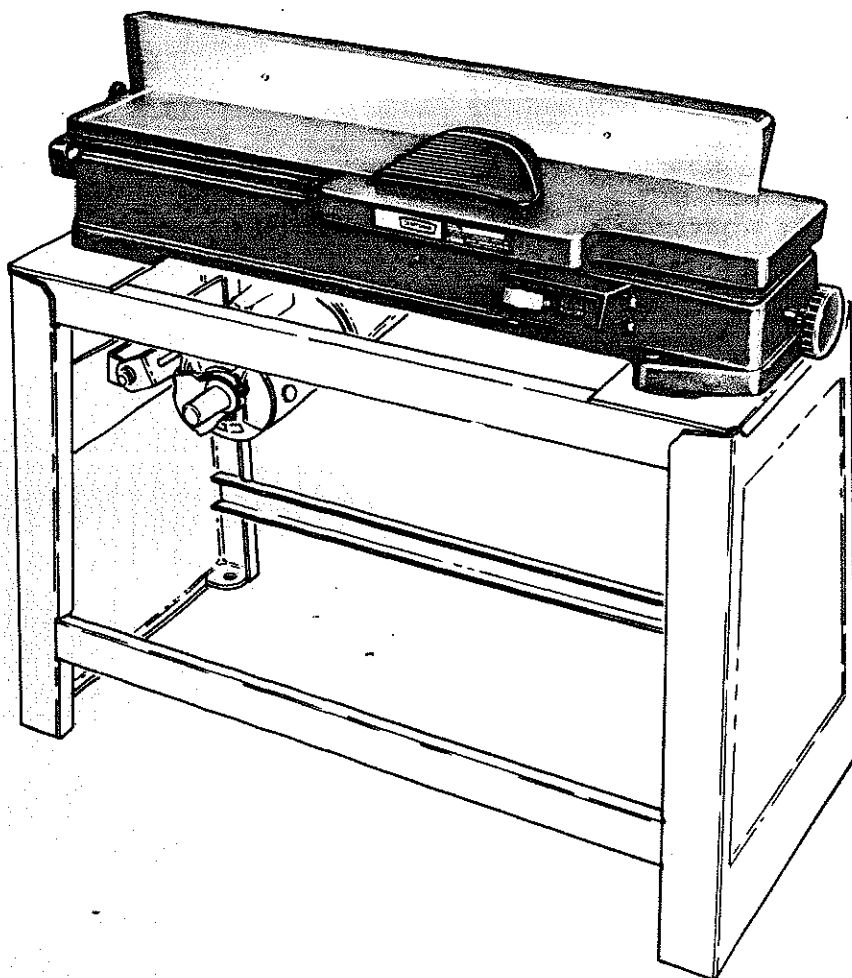
CRAFTSMAN 6 $\frac{1}{8}$ -INCH JOINTER-PLANER

MODEL No.
113.20650

CAUTION:

Read Safety
Rules and
Instructions
Carefully

- Assembly
- Operating
- Repair Parts



SEARS, ROEBUCK AND CO. U.S.A.
SIMPSON-SEARS LIMITED, CANADA

general safety rules for power tools

1. KNOW YOUR POWER TOOL

Read the owner's manual carefully. Learn its application and limitations as well as the specific potential hazards peculiar to this tool.

2. GROUND ALL TOOLS

If tool is equipped with three-prong plug, it should be plugged into a three-hole grounded receptacle. If adapter is used to accommodate two-prong receptacle, the adapter wire must be attached to a known ground. Never remove third prong.

3. KEEP GUARDS IN PLACE and in working order.

4. REMOVE ADJUSTING KEYS AND WRENCHES

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

5. KEEP WORK AREA CLEAN

Cluttered areas and benches invite accidents.

6. AVOID DANGEROUS ENVIRONMENT

Don't use power tools in damp or wet locations. Keep work area well lit.

7. KEEP CHILDREN AWAY

All visitors should be kept a safe distance from work area.

8. MAKE WORKSHOP KID-PROOF

— with padlocks, master switches, or by removing starter keys.

DON'T FORCE TOOL

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

10. USE RIGHT TOOL

Don't force tool or attachment to do a job it was not designed for.

11. WEAR PROPER APPAREL

No loose clothing or jewelry to get caught in moving

parts. Rubber-soled footwear is recommended for best footing.

12. USE SAFETY GLASSES

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

13. SECURE WORK

Use clamps or a vise to hold work when practical. It's safer than using your hand, frees both hands to operate tool.

14. DON'T OVERREACH

Keep proper footing and balance at all times.

15. MAINTAIN TOOLS WITH CARE

Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

16. DISCONNECT TOOLS

before servicing; when changing accessories such as blades, bits, cutters, etc.

17. AVOID ACCIDENTAL STARTING

Make sure switch is in "OFF" position before plugging in.

18. USE RECOMMENDED ACCESSORIES

Consult the owner's manual for recommended accessories. The use of improper accessories may cause hazards.

19. NEVER STAND ON TOOL

Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.

20. CHECK DAMAGED PARTS

Before further use of the tool, a guard or other part that is damaged should be carefully checked to assure that it will operate properly and perform its intended function—check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.



The operation of any power tool can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields before commencing power tool operation. We recommend **Wide Vision Safety Mask** for use over spectacles, or standard safety glasses . . . available at Sears retail or catalog stores.



THIS SAFETY SEAL OF THE POWER TOOL INSTITUTE ASSURES YOU . . .

1. That the manufacturer's power tools, including the particular tool associated with the Seal, are produced in accordance with applicable Standards For Safety of Underwriters' Laboratories and American National Standards (ANSI).
2. That compliance with applicable safety standards is assured by independent inspection and testing conducted by Underwriters' Laboratories (UL).
3. That every motorized tool is inspected under power.
4. That every tool has with it adequate instructions and a list of safety rules for the protection of the user.
5. That the tool manufacturer is a member of the Power Tool Institute and is a sponsor of the Institute's Consumer Safety Education Program.

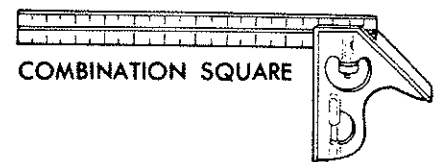
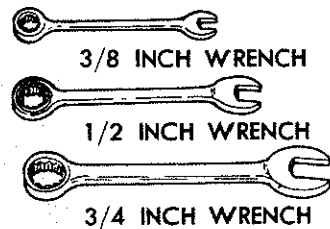
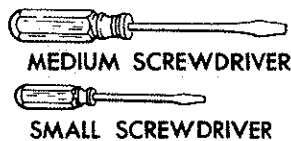
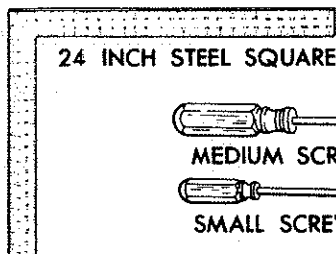
unpacking and preassembly

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TOOLS NEEDED



UNPACKING AND PREASSEMBLY INSTRUCTIONS

Your Jointer-Planer is shipped complete in one carton (with-out motor or floor base).

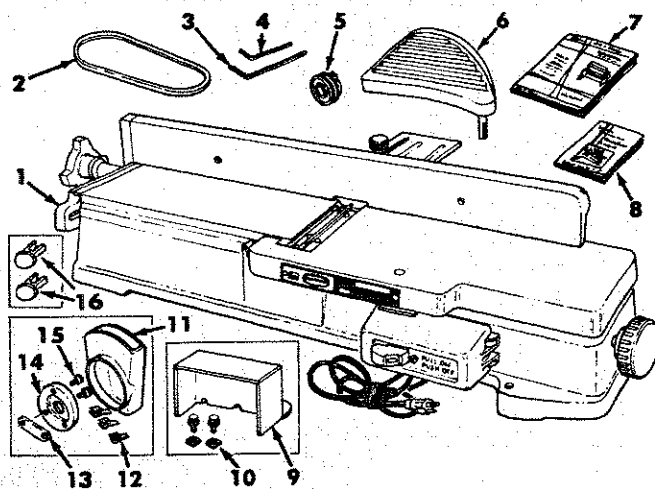
Separate all parts from packing materials and check each item with illustration and "Table of Loose Parts." Make certain all items are accounted for, before discarding any packing material.

Remove the wood blocks attached to the jointer-planer. Save the nuts, bolts and washers, you will need them later.

Remove the protective coating that is applied to all unpainted metal surfaces at the factory. We suggest using Kerosene. Be careful when cleaning the cutter head.

CAUTION: Never use gasoline, naphtha or similar highly volatile solvents.

NOTE: Apply a coat of paste wax to table and fence. This will help prevent rust and make it a little easier to feed the work while planing.



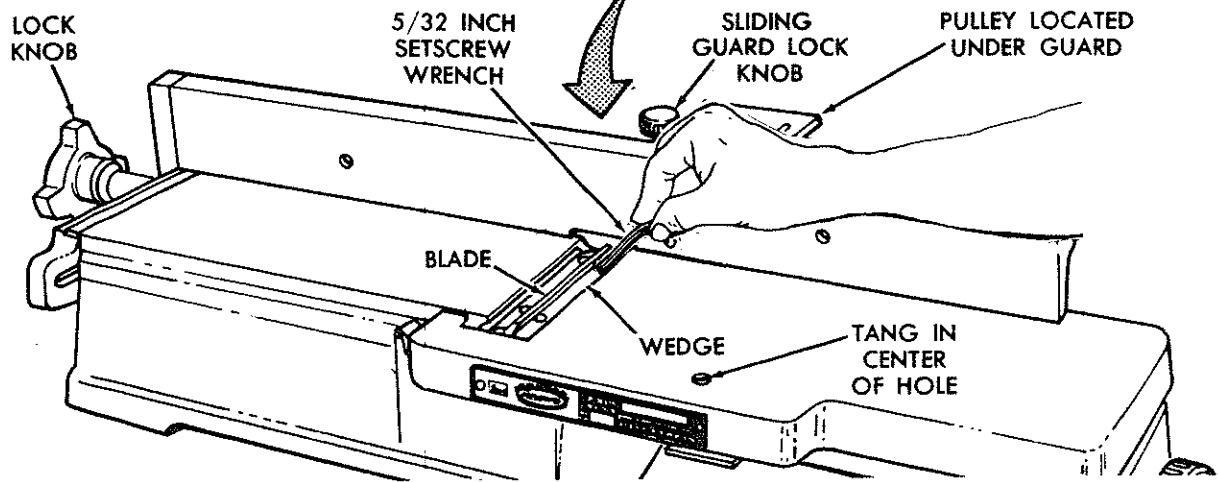
Key No.	Table of Loose Parts	Qty.
1	Jointer-Planer.....	1
2	V-Belt, 1/2 x 37".....	1
3	5/32 Setscrew Wrench (attached to V-Belt).....	1
4	1/8 Setscrew Wrench (attached to V-Belt).....	1
5	Motor Pulley, 2 1/2 In., Dia.....	1
6	Cutter Guard.....	1
7	Owner's Manual.....	1
8	Jointer-Planer Handbook.....	1
9	Jointer-Planer Belt Guard.....	1
10	Attaching Hardware (2 Nuts, 2 Bolts).....	1
11	Motor Pulley Belt Guard.....	1
12	Belt Guard Clips.....	3
13	Belt Guard Support Bracket.....	1
14	Belt Guard Support.....	1
15	Attaching Hardware for Support Bracket (2 self tapping screws).....	1
16	Switch Key.....	2

Installing the Cutter Guard

1. Loosen FENCE LOCK KNOB and SLIDING GUARD LOCK KNOB, tilt fence upward and slide it toward the pulley as far as it will go.

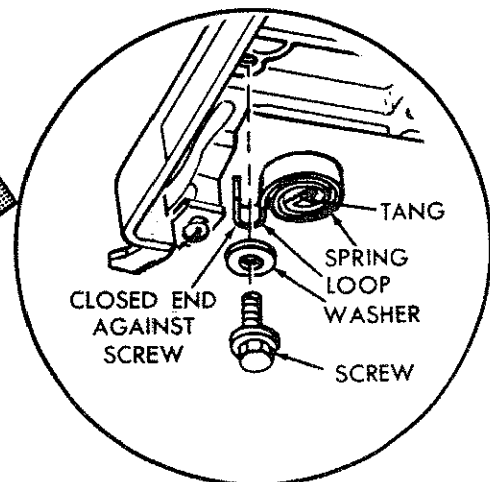
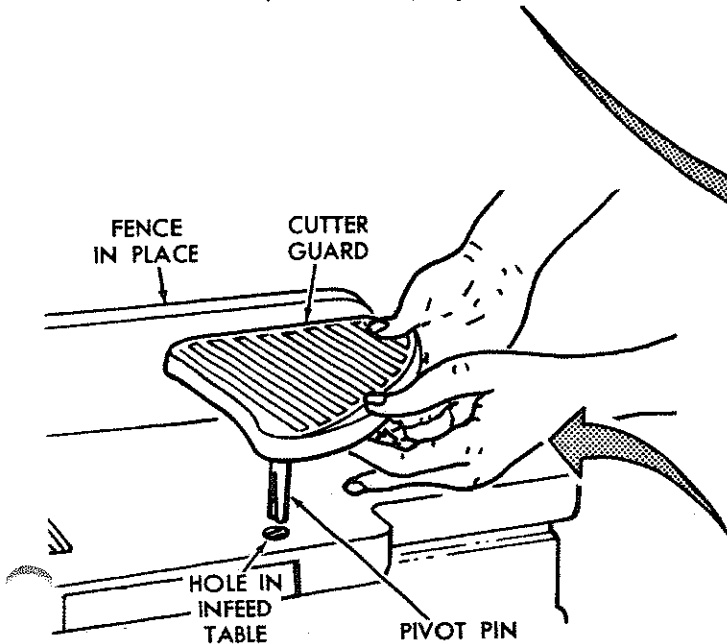
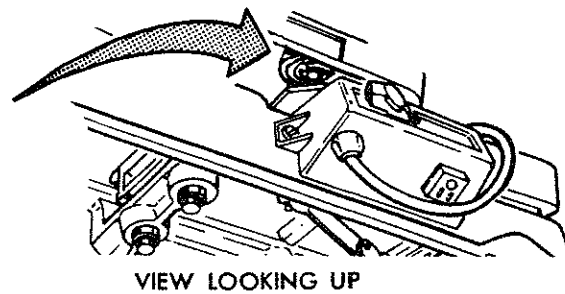
IMPORTANT: The six screws that lock the cutter blades were tightened at the factory. Due to handling and shipping, these screws should be re-checked for tightness.

2. Use the 5/32 inch setscrew wrench and retighten each screw in the wedge, if necessary. Hold the pulley while tightening the screws and be careful that your fingers do not slip off the wrench.



3. **IMPORTANT:** CHECK THE INSTALLATION OF CUTTER GUARD SPRING.

The CLOSED END of the LOOP in the spring must be AGAINST the screw, and the TANG must be centered in the hole. If the spring is not installed in this manner, loosen the screw and reposition the spring. Tighten the screw.

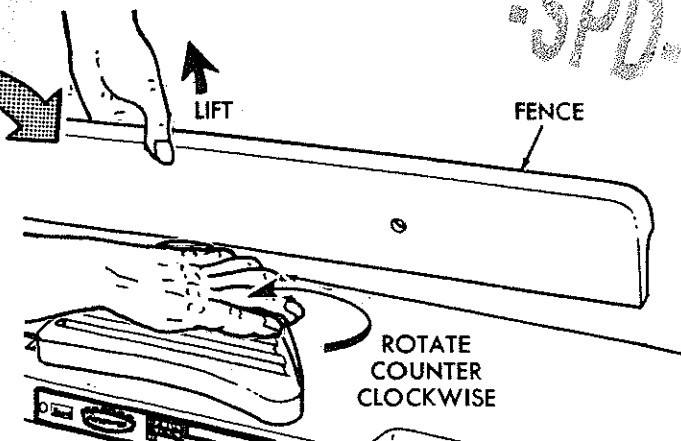
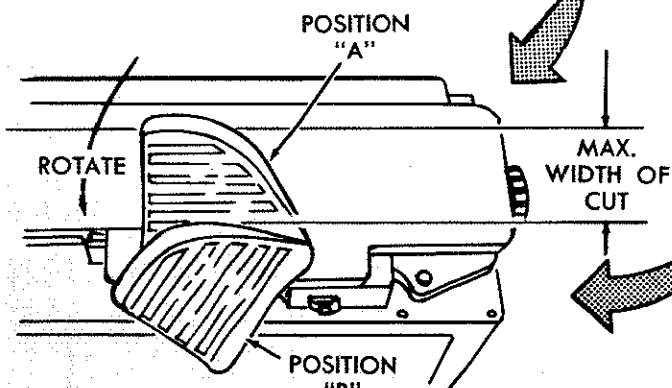


4. Position the guard as shown, with the PIVOT PIN above the hole in the infeed table.
5. Align SLOT in pin with TANG in spring, and press down.

6. RAISE end of the FENCE, rotate guard COUNTER clockwise only enough to CLEAR fence.

7. LOWER fence and tighten both lock knobs.

8. The normal position of guard (at REST) when fence is stationed at MAXIMUM WIDTH OF CUT, is shown as "position A." NEVER ROTATE GUARD BEYOND POSITION "B" BECAUSE THIS WOULD EXERT EXCESSIVE TENSION ON SPRING WHICH COULD WEAKEN OR BREAK IT.

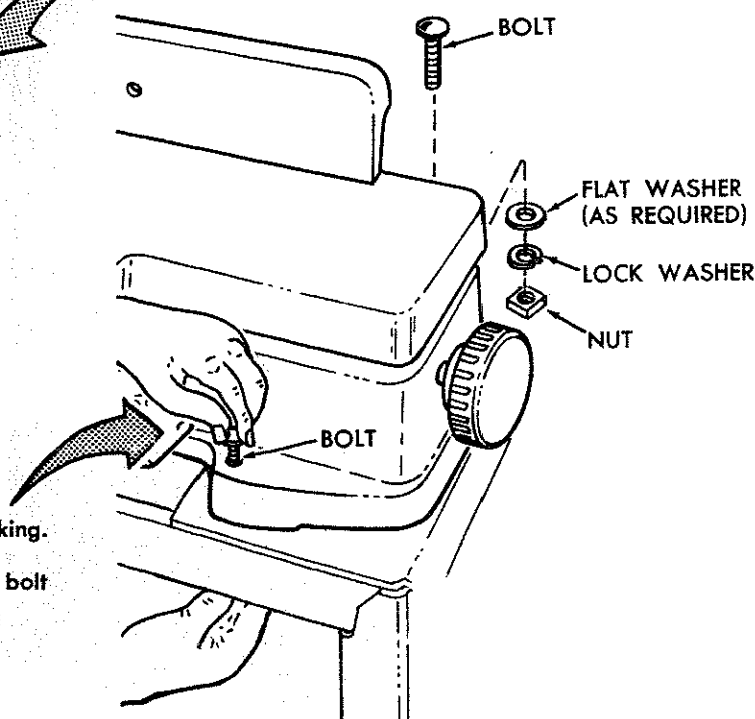
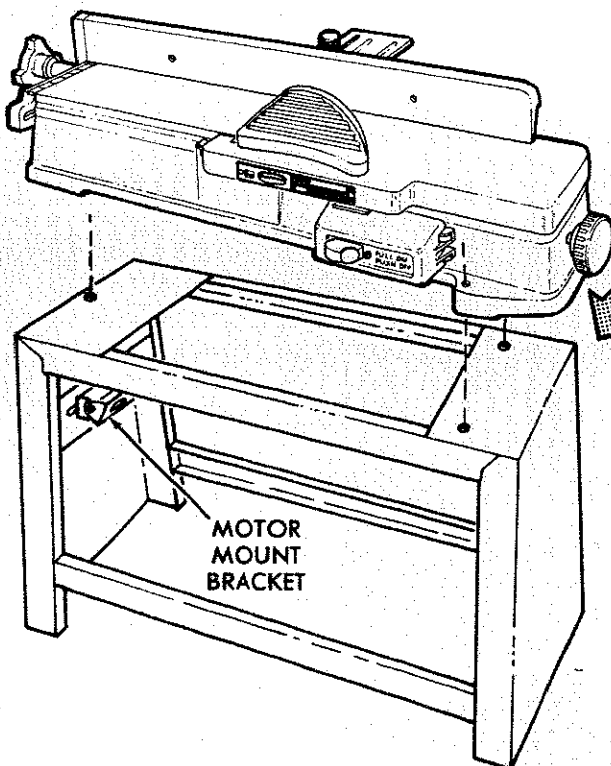


9. Check operation of GUARD and SPRING.

- With fence in MAXIMUM WIDTH OF CUT position, pass a piece of 1/4 inch thick wood on edge (jointing position) over cutterhead.
- The guard should return automatically to its REST position against the fence when free of the wood.
- If the guard does not return to its REST position, review the installation procedure and make correction if necessary.
- If guard still does not return to its REST position, consult your local Sears Retail Store before using the jointer planer.

Mounting Jointer-Planer on Craftsman Floor Base

1. Place the jointer-planer on the base, position as shown, and align mounting holes.



2. Insert the three bolts which you removed when unpacking.

3. Place a flat washer, a lock washer and a nut on each bolt from underneath the base and tighten.

NOTE: The length of threads may vary on some bolts and it may be necessary to add extra flat washers in order to tighten the nut securely.

Motor Specifications and Mounting

Your jointer-planer requires a 3450 RPM motor which operates on 110-120 volts.

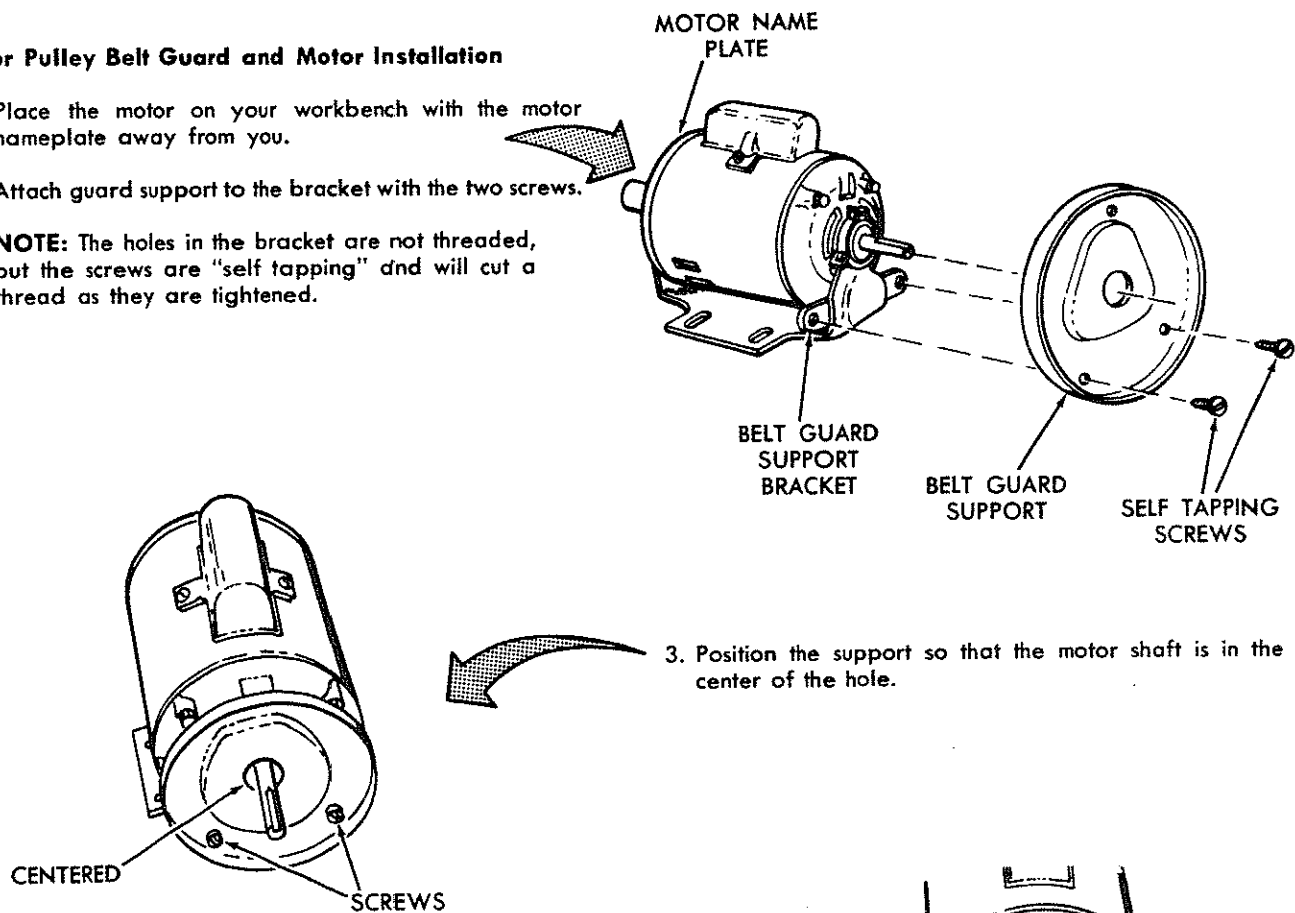
RECOMMENDED CRAFTSMAN MOTORS

HP	RPM	VOLTS	CATALOG No.
1/2	3450	110-120	9-1216C
1/2	3450	110-120	9-1218C
3/4	3450	110-120	9-1219C
3/4	3450	110-120	9-1226C

Motor Pulley Belt Guard and Motor Installation

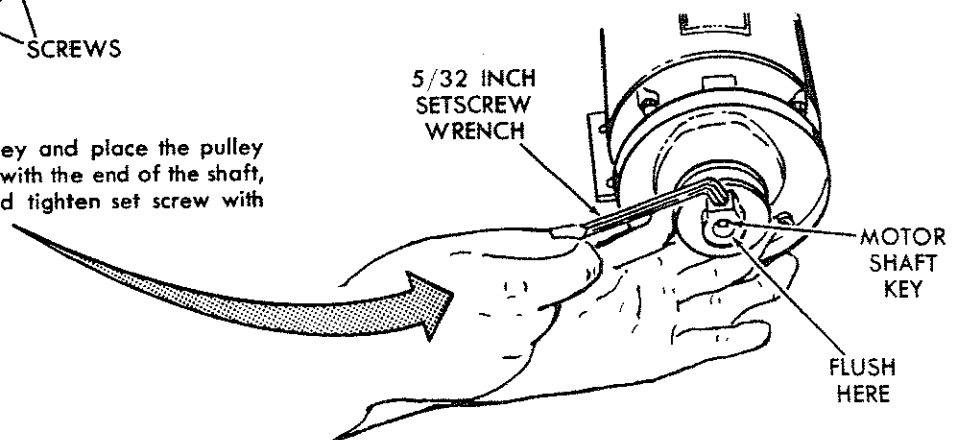
1. Place the motor on your workbench with the motor nameplate away from you.
2. Attach guard support to the bracket with the two screws.

NOTE: The holes in the bracket are not threaded, but the screws are "self tapping" and will cut a thread as they are tightened.



3. Position the support so that the motor shaft is in the center of the hole.

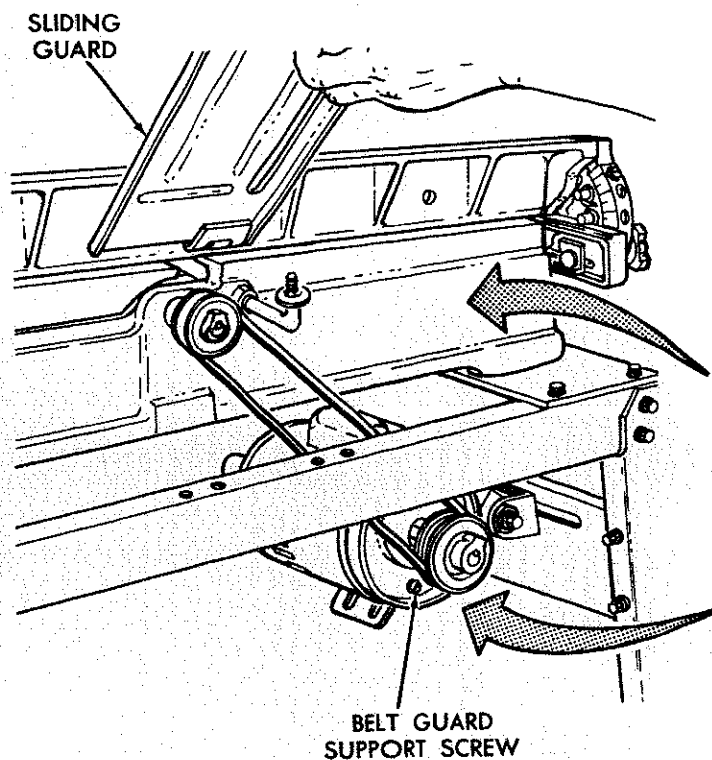
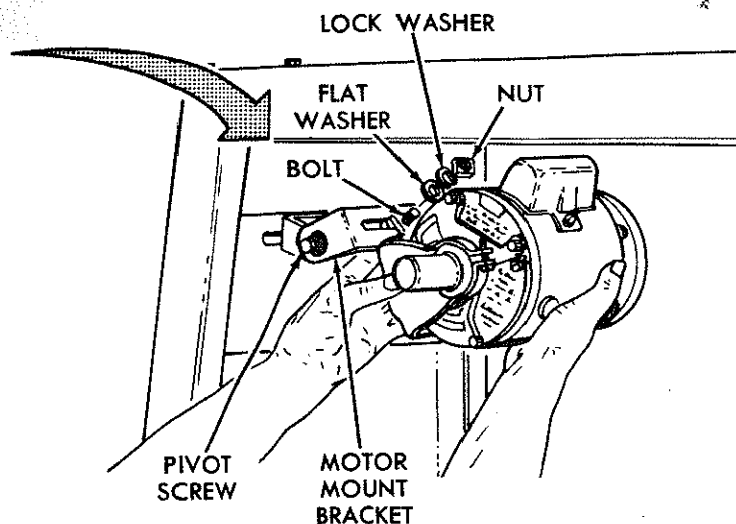
4. Loosen set screw in motor pulley and place the pulley on the shaft with the hub flush with the end of the shaft, insert the motor shaft key and tighten set screw with 5/32" setscrew wrench.



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5. Attach motor to bracket with 1" long bolts, flat washers, lock washers, and nuts supplied with base, do not tighten nuts.

NOTE: Make sure pivot screws on motor bracket are loose.

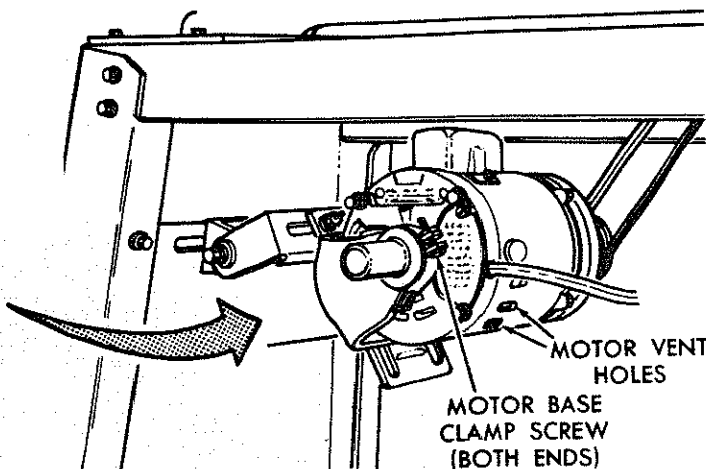


6. Remove lock knob and washer and lift sliding guard up. Place the belt over the pulleys. Move the motor until the two pulleys are in line. Tighten the motor bolts.

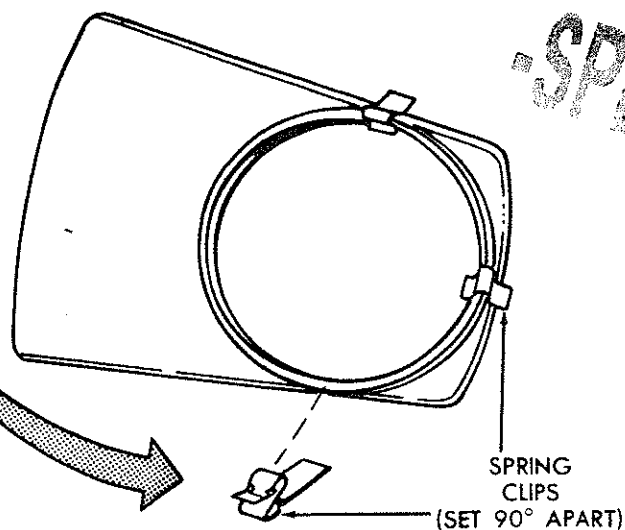
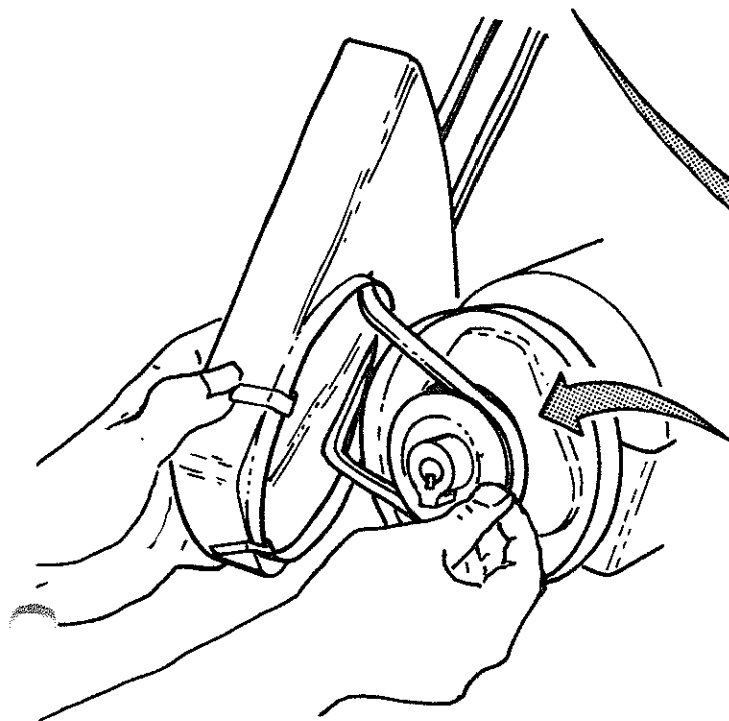
7. Loosen the guard support screws.

8. Loosen the two motor base clamp screws and turn the motor so that the ventilation holes are facing down. Tighten the screws.

9. Tighten the guard support screws.



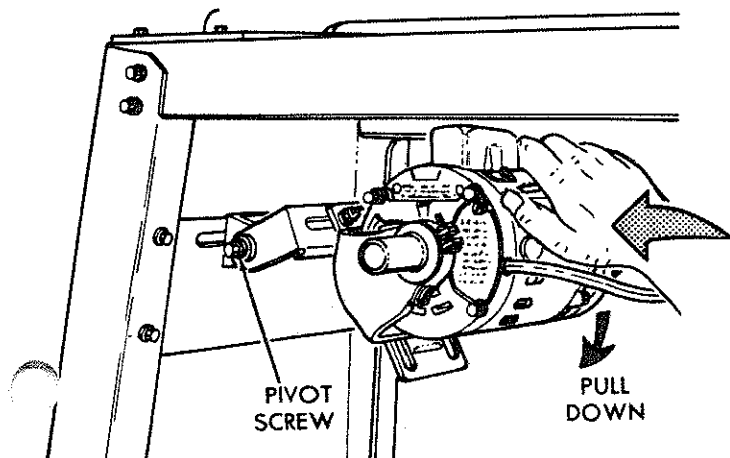
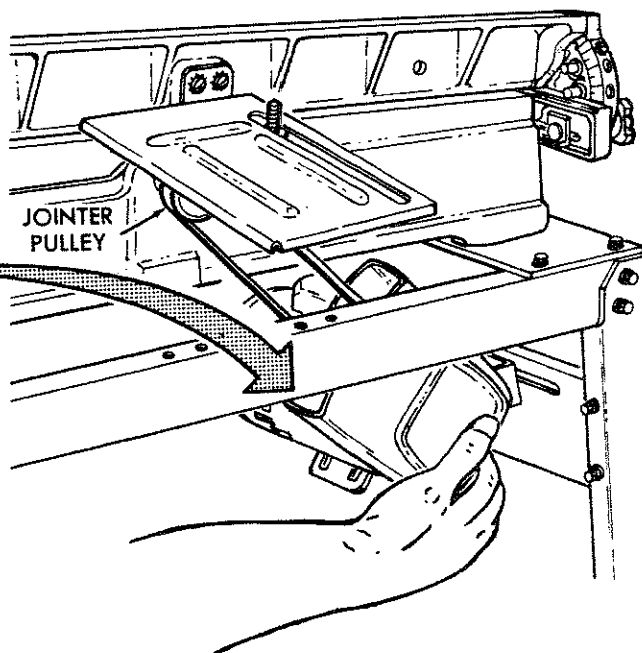
10. Install three spring clips on the guard 90° apart with the long tabs out.



11. Remove the belt, thread it through the belt guard and place the belt over the motor pulley.

12. Snap the belt guard into position on the guard support and place the belt over the jointer pulley.

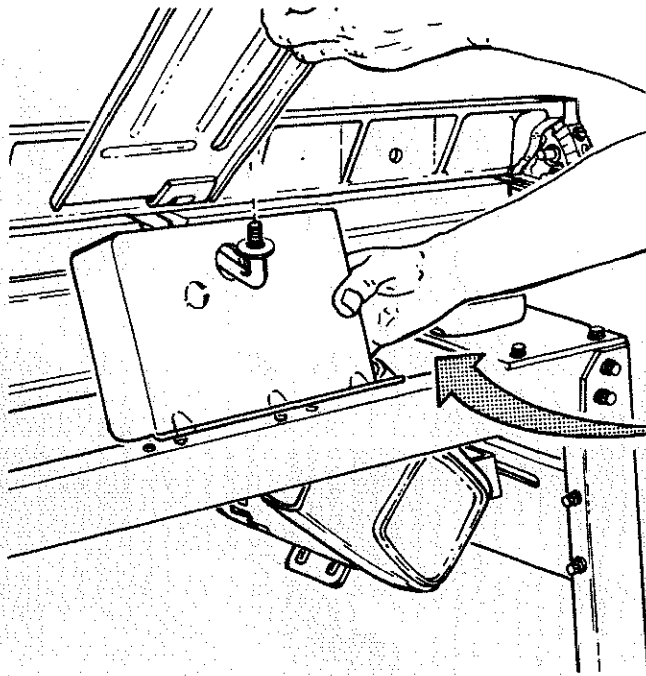
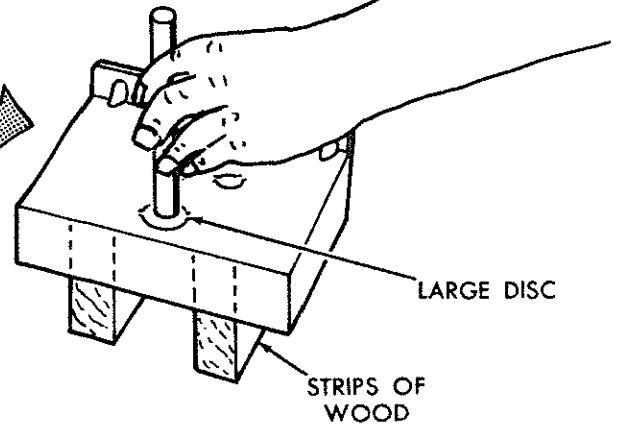
13. Adjust the guard so that the belt does not scrape at any point. Lift up on the long tabs of the three clips to move the guard.



14. Pull down on the motor to apply tension to the belt and tighten the pivot screws in the motor bracket on the stand.

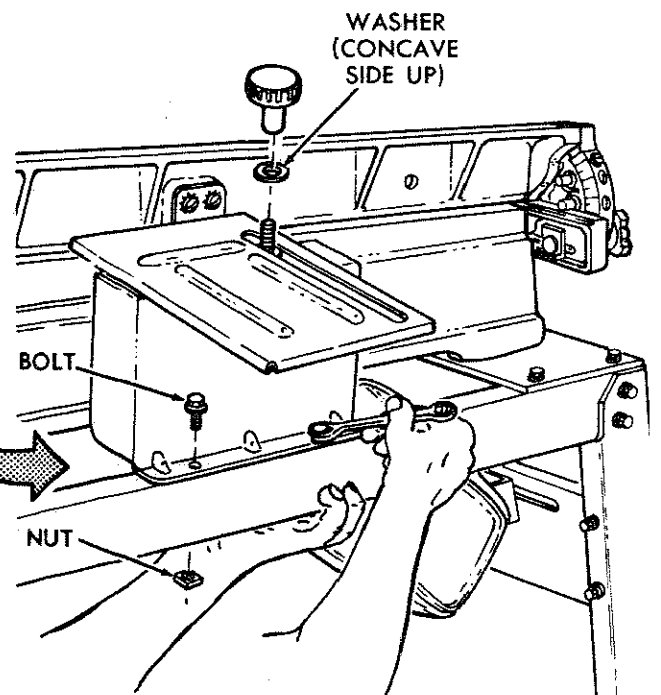
Jointer-Pulley Belt Guard Installation

1. Place guard on two strips of wood and punch out the larger round disc. Use a metal punch or a stick of hardwood.



2. Lift sliding guard and place belt guard on base.

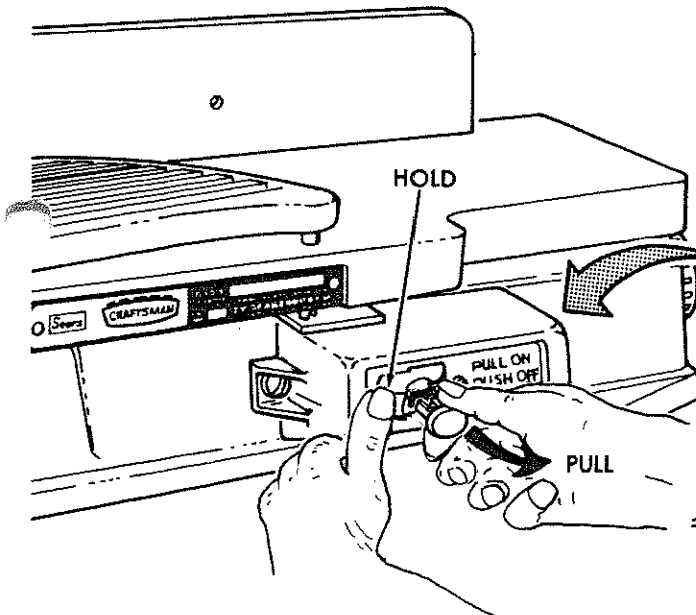
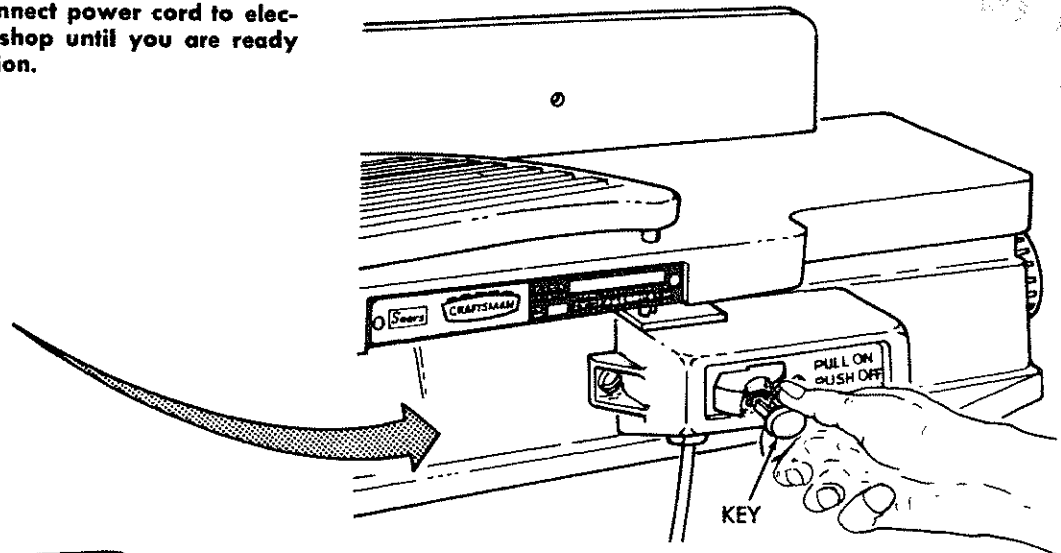
3. Attach the guard to the base with the nuts and bolts furnished with the guard. Make sure the guard does not scrape the belt. Replace the washer and sliding guard lock knob.



Electrical Installation

WARNING: Don't connect power cord to electrical outlet in your shop until you are ready to check motor rotation.

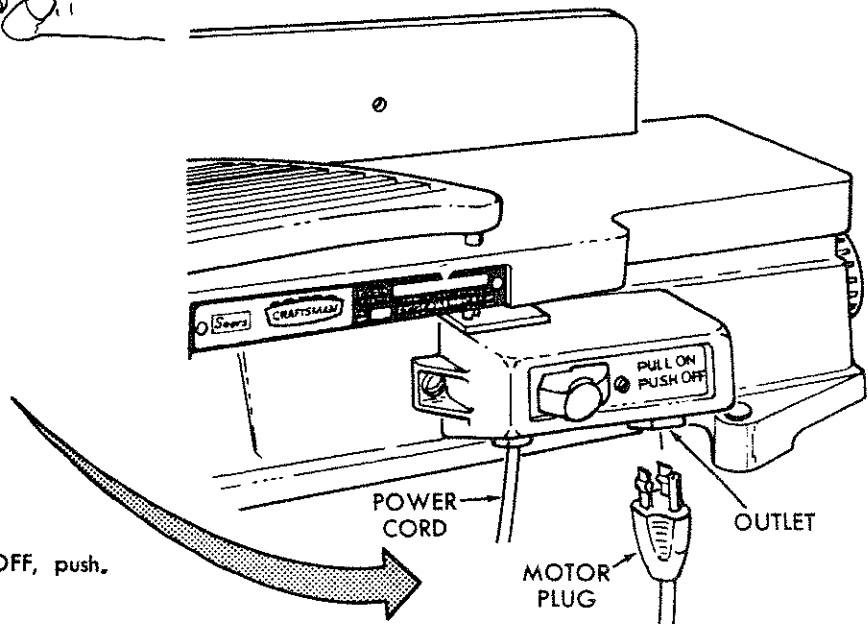
1. Insert key into switch.



2. Removing key.

IMPORTANT: Locking feature is provided to prevent unauthorized use of your jointer-planer. Always remove key and keep it in a safe place. To remove key, hold thumb on end of lever to hold switch off while pulling key straight out with other hand.

3. Connect motor plug to switch box outlet.



To actuate switch, pull ON. To turn OFF, push.

Connecting Jointer-Planer to Power Source. Plug power cord into a 110-120V grounded type outlet protected by a 15-amp. time delay or Circuit-Saver fuse or circuit breaker.

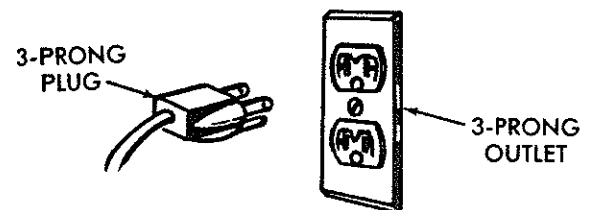
WARNING: Do not permit fingers to touch the terminals of plugs when installing or removing the plug to or from the outlet.

WARNING: IF NOT PROPERLY GROUNDED this power tool can incur the potential hazard of electrical shock, particularly when used in damp locations, in proximity to plumbing, or out of doors. If an electrical shock occurs there is the potential of a secondary hazard such as your hands contacting the cutter head.

To comply with regulations of Underwriters' Laboratories in the United States and the Canadian Standards Association in Canada, this power tool is equipped with an approved 3-conductor cord and grounding type plug which has a grounding prong. The ground conductor has a green jacket and is attached to the tool housing at one end and to the ground prong in the attachment plug at the other end.

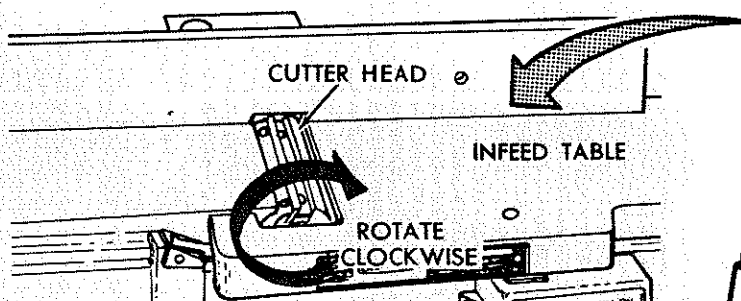
This plug requires a mating 3-conductor grounded type outlet as shown.

If the outlet you are planning to use for this power tool is of the two pronged type **DO NOT REMOVE OR ALTER THE GROUNDING PRONG IN ANY MANNER**, but have a qualified electrician replace the two prong outlet with a grounded three prong outlet.



The use of any extension cord will cause some loss of power. To keep this to a minimum and to prevent overheating and motor burn-out, use the table below to determine the minimum wire size (A.W.G.) extension cord. All cords should be 3-wire, grounded.

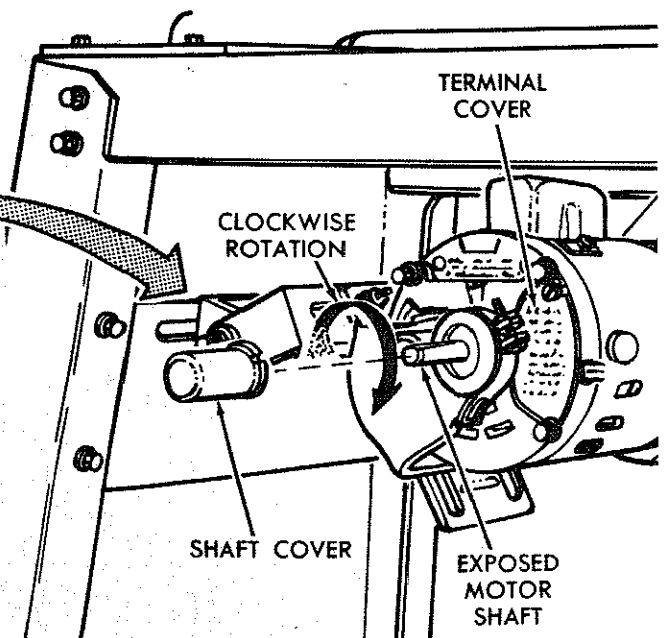
Extension Cord Length	Wire Size A.W.G.
50 ft. or less	12
100 ft. or less	10
100-150 ft.	8
150-200 ft.	6
200-400 ft.	4



Check Motor Rotation

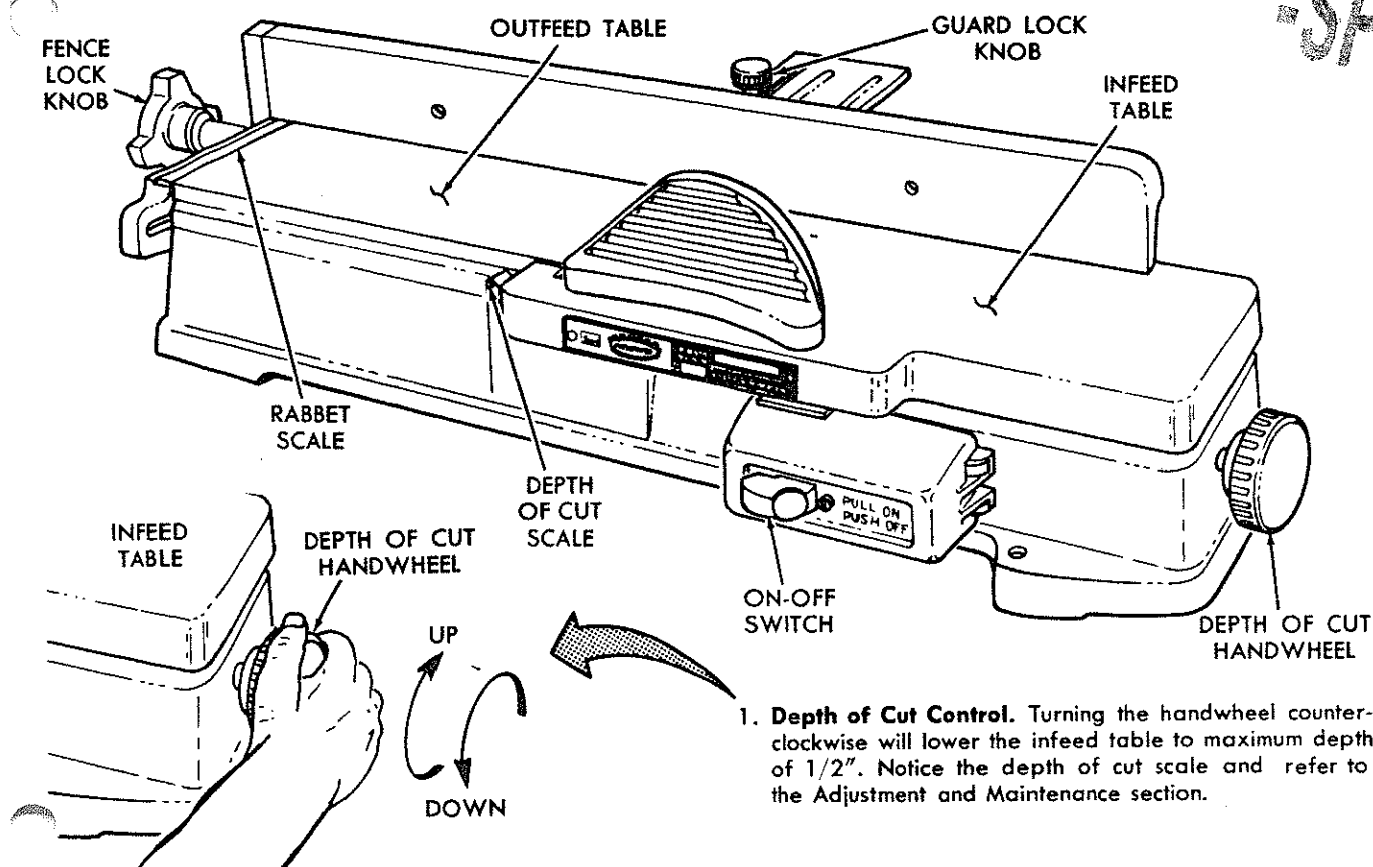
IMPORTANT: The cutter head must rotate in a clockwise direction.

1. Remove the shaft cover by turning it.
2. Turn the switch on and look at the exposed motor shaft to see what direction the motor is turning. It should be turning clockwise. If it is, your jointer is ready for operation. If it is turning counterclockwise:
 - a. Remove the power cord from the outlet in your shop.
 - b. Remove the terminal cover and change the connection of two wires according to the instructions printed on the back of the cover, or in the instructions furnished with your motor.
 - c. Replace the terminal cover and shaft cover.



operating controls

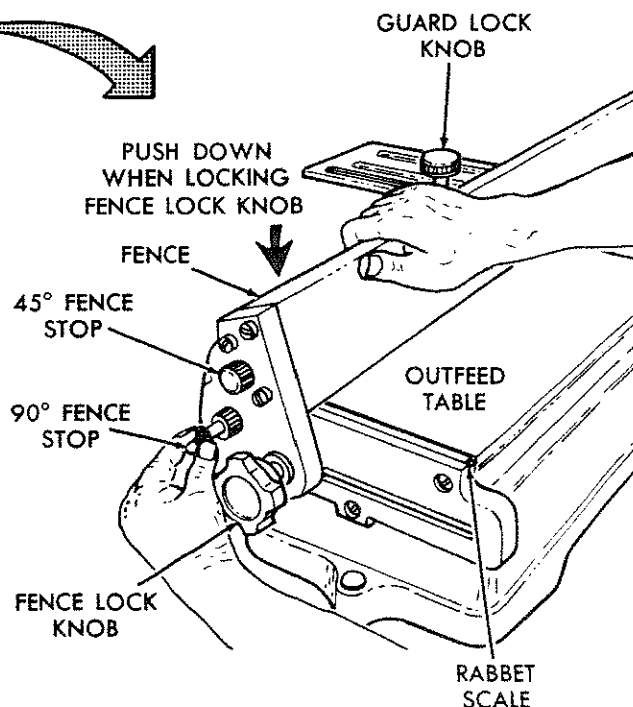
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1. **Depth of Cut Control.** Turning the handwheel counter-clockwise will lower the infeed table to maximum depth of 1/2". Notice the depth of cut scale and refer to the Adjustment and Maintenance section.

2. **Fence Locks and Stops.** To move the fence across the table, loosen the fence lock knob and the guard lock knob. Move the fence to the desired position and tighten both knobs.

- a. Always tighten the fence lock knob first to align the fence, then tighten the guard lock knob.
- b. Before tightening the fence lock knob, hold the fence down on the outfeed table so that it does not rock.
- c. **90° Fence Stop** positions the fence square to the tables. To tilt the fence, loosen the two knobs and pull the stop out. Tilt to the desired angle and tighten both knobs.
- d. To set the fence at 90° to the tables, loosen the two knobs, tilt the fence so that the stop springs back into place. Tilt the fence back so that the stop rests on the table and tighten both knobs.
- e. **45° Fence Stop** positions the fence at 45° to the tables.
- f. To tilt the fence to 45° loosen the two knobs, pull the 90° stop out, tilt the fence so that the 45° stop rests on the table.
- g. Hold the fence down on the outfeed table and tighten the two knobs.



- h. Notice the rabbet scale and refer to the Adjustment and Maintenance section.

SAFETY INSTRUCTIONS TO OPERATOR

WARNING: Do not connect power cord until the following steps have been satisfactorily completed.

- A. Read carefully and understand the following instructions and the "General Safety Rules for Power Tools" on Page 2.
- B. Examination and operating familiarity with ON-OFF switch, switch key, depth of cut control fence, fence locks and cutter guard.
- C. You have constructed the hold-down/push blocks per instructions on Page 14.

CAUTION: Always disconnect the power cord when making adjustments and always stop the jointer before repositioning the fence or the infeed table.

1. The Jointer-Planer should be bolted down if there is any tendency to tip over or move during normal operations.
2. The Jointer-Planer work area should have adequate overhead, non-glare light and adequate surrounding work space.
3. The Jointer-Planer should be positioned so neither the operator nor a casual observer is forced to stand in line with the wood while it is being planed.
4. A potential source of Jointer-Planer accidents is the failure to use recommended hold down devices while planing wood. (See section in this manual, "Basic Jointer-Planer Operations.")
5. Jointer-Planer accidents can be caused by:
 - (a) making an excessively deep cut at one time. A deep cut requires more effort to feed the wood while planing and can cause the wood to kickback toward you. (kickback)
 - (b) planing pieces of wood smaller than recommended. (See section in this manual, "Basic Jointer-Planer Operations.") Smaller pieces of wood can tip over on the tables, or into the cutter head and can be kicked back toward you.
 - (c) dull or nicked blades. Blades that are dull or nicked require more effort while planing and will tend to pound the wood rather than cut it, which can cause the wood to kickback.
 - (d) a nicked blade will cut a ridge in your wood and cause the wood to ride up on the outfeed table. Keep blades sharp.
6. Gloves should not be worn while operating the Jointer-Planer. Loose flowing garments, jewelry (rings, wrist watches, etc.) and neckties should never be worn. Long sleeves should be rolled to above the elbows.
7. Goggles or an eye shield should always be used. Ear protectors (ear plugs or muffs) should be used during extended periods of operation.

8. Hold the work firmly against tables and fence. Use recommended hold downs.
9. Never climb on the Jointer-Planer. Never leave the Jointer-Planer work area with the power on, before the cutter head has come to a complete stop, or without removing and storing the switch key.
10. Avoid awkward hand positions, where a sudden slip could cause a hand to move into the cutter head. Always feed the wood completely through the cutter head and past the cutter guard so that the guard returns to the rest position against the fence. When using only one hold down to feed the wood, do not place your other hand on the Jointer-Planer.
11. Make sure the cutter head rotates toward the infeed table. Also make sure the cutter blades are installed properly. Keep the infeed table set at $1/32"$ for safest operation. Keep cutter guard in place except when rabbeting. Regularly check the tension of the cutter guard spring to assure satisfactory operation. (See section in this manual, "Adjustments and Maintenance.")
12. When surface planing, edge, bevel or rabbet planing pieces of wood over four (4) feet long, make sure the wood is supported at table height after it leaves the outfeed table. Warped wood should be surface planed on the concave side for best results.
13. To avoid a rough planed surface, determine if possible, which way the grain emerges from the wood and feed the wood accordingly.



14. Do not plane edges of plywood, composition materials, or wood that has glue on it or is painted or varnished. Planing these materials will dull the blades quickly.
15. To be sure you will make a depth of cut as planned, always lower the infeed table slightly beyond the depth wanted, then raise the table to the desired depth.

WARNING: The 2" Jointer-Planer pulley and the 2-1/2" motor pulley furnished, will run the cutter head at approximately 4300 RPM when used with a 3450 RPM motor. Never substitute these pulleys to increase this speed because it could be dangerous.

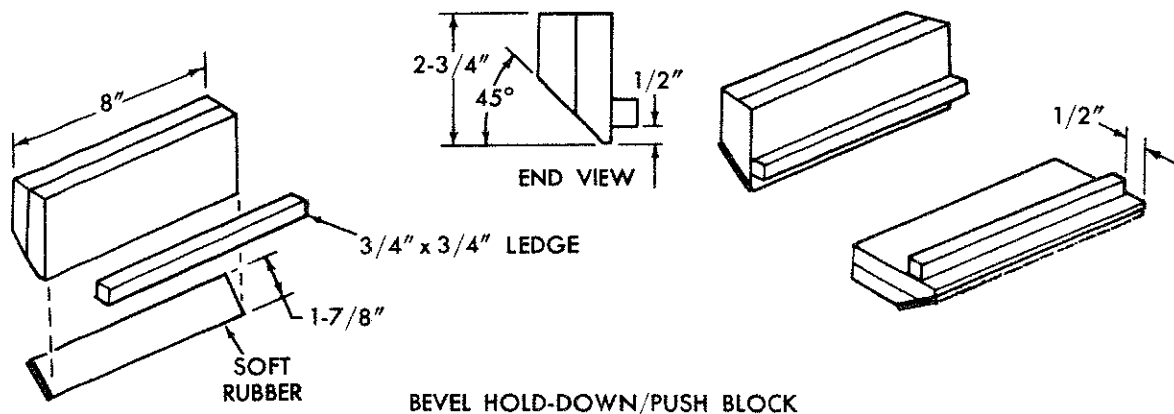
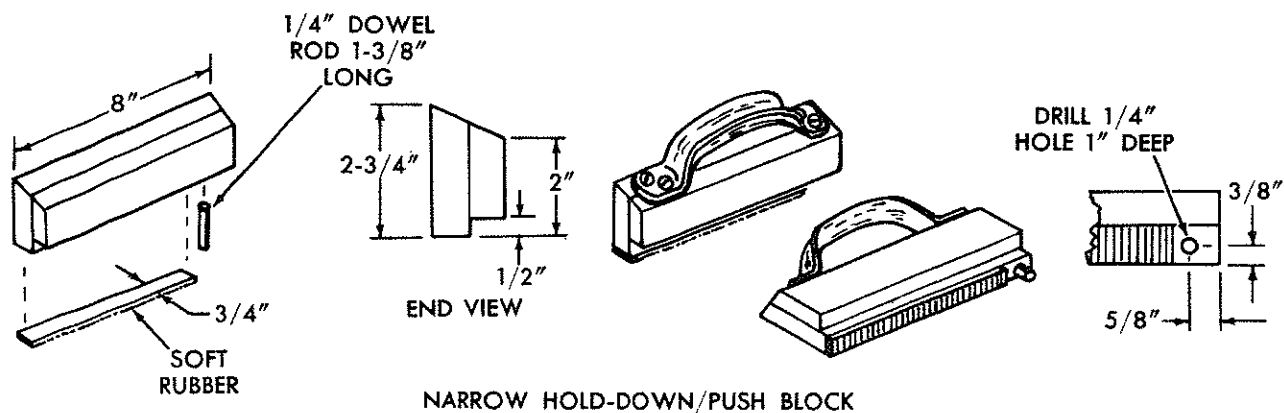
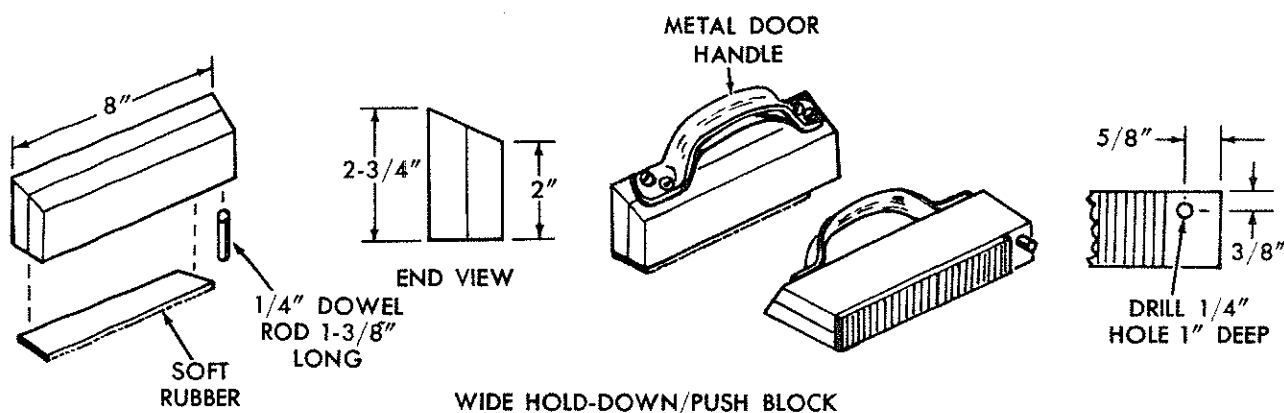
16. Safety is a combination of operator common sense and alertness at all times when the Jointer-Planer is being used.

WARNING: Do not allow familiarity (gained from frequent use of your Jointer-Planer) to become commonplace. Always remember that a careless fraction of a second is sufficient to inflict severe injury.

Basic Jointer-Planer Operation

There is almost no limit to the number of different sizes of wood that you can plane on your Craftsman Jointer-Planer. To get the best results and to reduce the hazard potential, make up and use a set of "Hold-Down/Push Blocks."

Use two pieces $\frac{3}{4}$ " plywood, and fasten them together with glue and screws. Fasten a piece of rubber to the bottom with contact cement, we suggest cutting strips from a rubber bath mat.



Basic Jointer-Planer Operation.

We suggest you practice these operations a few times before making any cuts. Raise the infeed table to "0" and do not turn on the motor.

IMPORTANT: To get a smooth even cut the full length of the wood, you must exert the same downward pressure on the wood while continually feeding it over the cutter head at a moderate rate of feed.

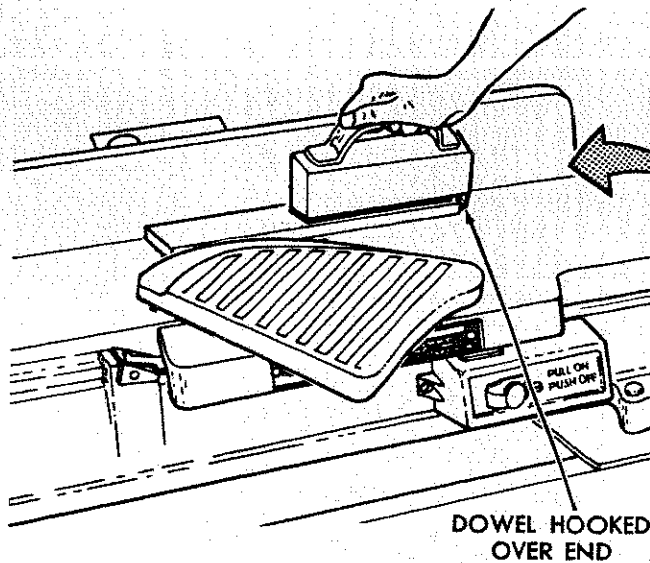
CAUTION: Do not feed the wood too fast because it could be hazardous.

Surface Planing

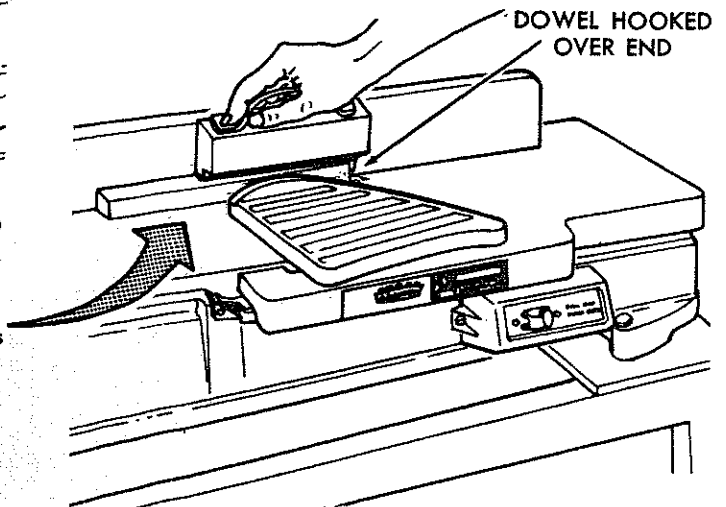
1. Never make cuts deeper than $1/32$ of an inch.
2. Never surface plane a piece of wood:
 - a. Less than 12" long.
 - b. Less than $3/4$ " wide or more than 6" wide.
 - c. Less than $5/8$ " thick.

3. Short Pieces

- a. Use two wide hold-down/push blocks on wood 4" to 6" wide with dowel hooked over end of wood.



- b. Use one wide hold-down/push block on wood $1\frac{1}{2}$ " to 4" wide.

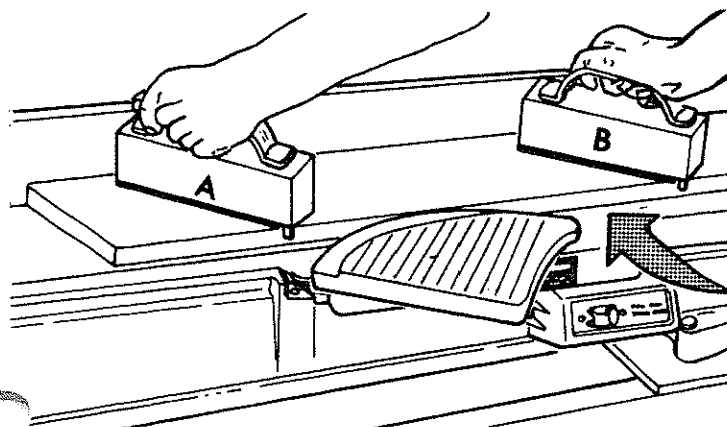
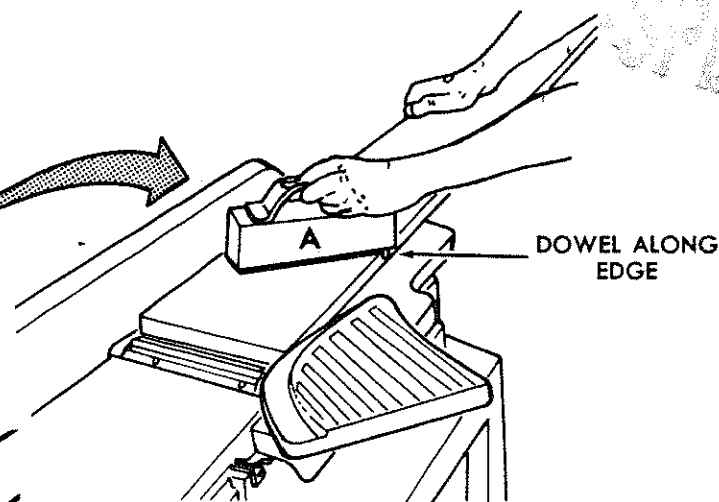


- c. Use one narrow hold-down/push block on wood less than $1\frac{1}{2}$ " wide.

basic jointer-planer operation

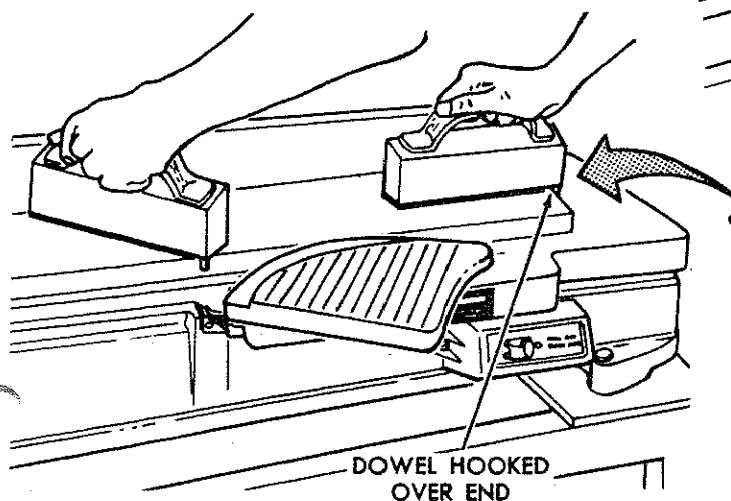
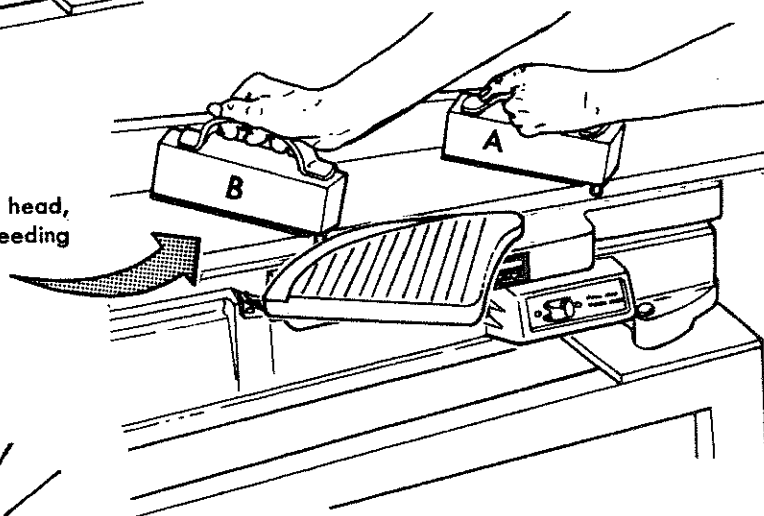
Long Pieces, use wide hold-down/push blocks on wood 1-1/2" to 6" wide and narrow hold-down/push blocks on wood less than 1-1/2" wide.

- a. Position hold-down/push block "A" and start feeding wood with right hand until guard is open and cut is started.



- b. Continue feeding using both hold-down/push blocks.

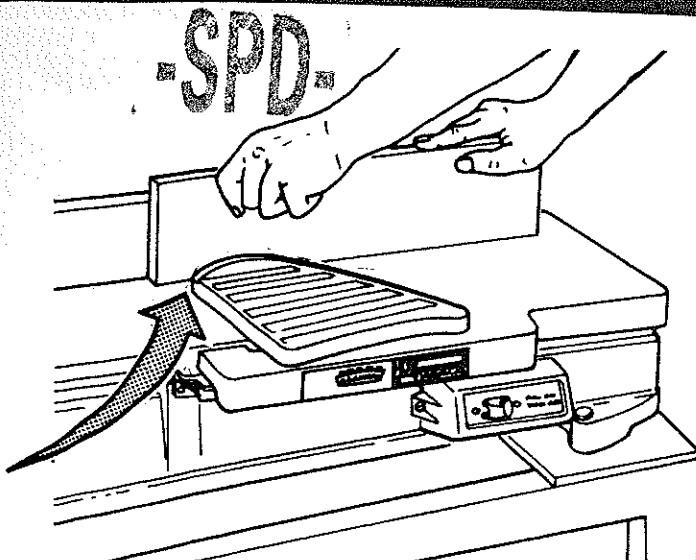
- c. As hold-down/push block "B" passes over cutter head, reposition hold-down/push block "A", continue feeding using this hand over hand method.



- d. As the end of the wood approaches the cutter head, position the hold-down/push blocks nearest the end with dowel hooked over end of wood.

Edge Planing (Jointing)

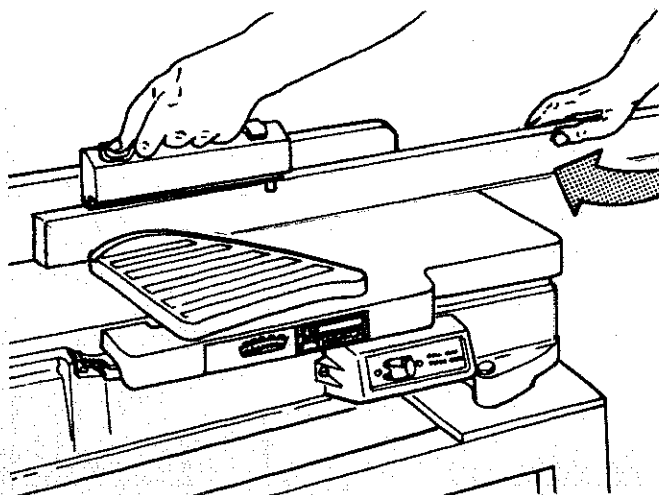
1. Never make cuts deeper than $1/32$ of an inch.
2. Never edge plane a piece of wood:
 - a. Less than 12" long.
 - b. Less than $3/4$ " wide.
 - c. Less than $1/4$ " thick.
3. **Wood More Than 3" Wide**
 - a. Hold wood against fence. Keep fingers near the top edge of wood.



4. Wood 3" Wide and Less

- a. Use narrow hold-down/push block on wood up to $3/4$ " thick with dowel along edge. Start feeding with right hand while applying pressure with hold-down/push block.

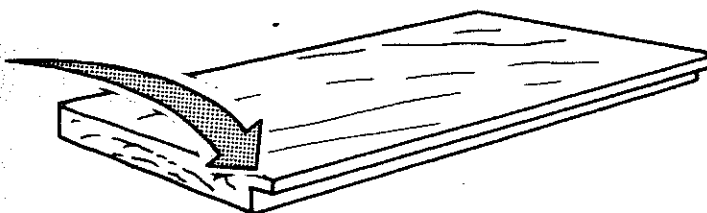
NOTE: For long pieces, follow same procedure for "Surface Planing."



Rabbit Planing (Rabbeting)

CAUTION: The cutter guard must be removed when rabbeting. Use caution and good judgement. Take successive light cuts by lowering the infeed table $1/32$ " at a time.

1. A cut out portion on the corner of a piece of wood is called a rabbet.
2. Never make heavy cuts. It is easier and less hazardous to take light cuts. Set the infeed table to $1/32$ ".
3. Set fence to the desired width of the rabbet.
4. Never plane a rabbet on a piece of wood:
 - a. Less than 12" long.
 - b. The width and thickness of the wood that can be rabbeted, depends upon the width and length of the rabbet being cut.

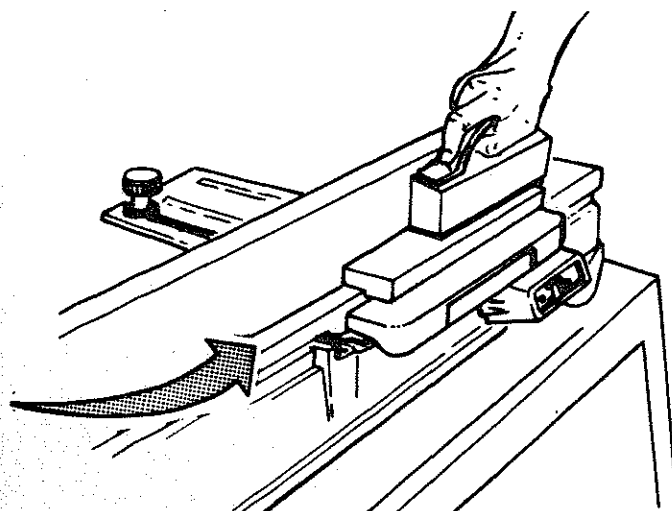


5. Long Pieces, use both hold-down/push blocks.

NOTE: For long pieces, follow same procedure for "Surface Planing."

6. **Short Pieces**, use one hold-down/push block with dowel hooked over end or along edge depending upon the width of the wood.

7. Always re-install cutter guard after rabbeting.

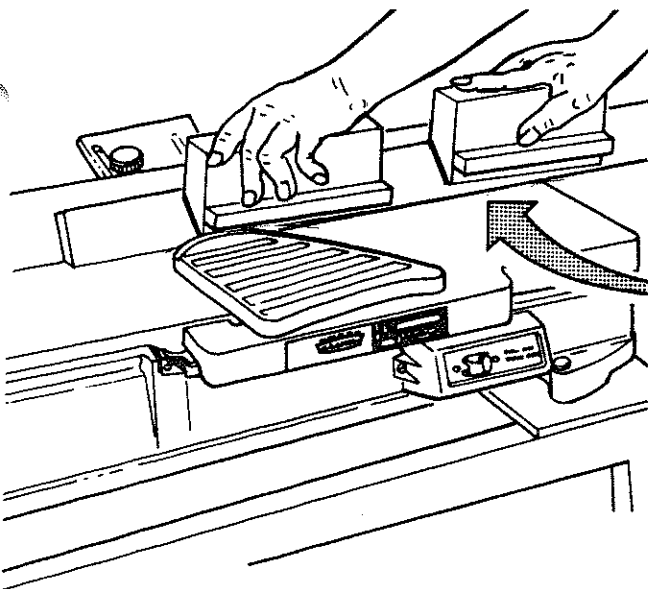
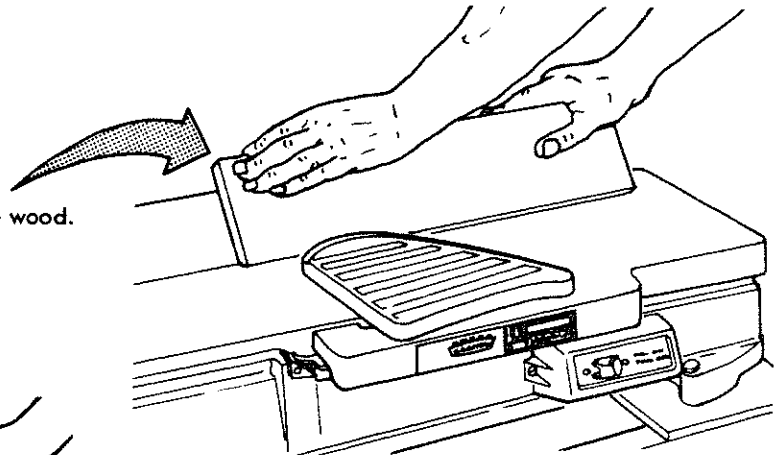


Bevel Planing (Beveling)

1. Never make cuts deeper than $1/16$ of an inch.
2. Never bevel plane a piece of wood:
 - a. Less than 12" long.
 - b. Less than 1" wide.
 - c. Less than $1/4$ " thick.

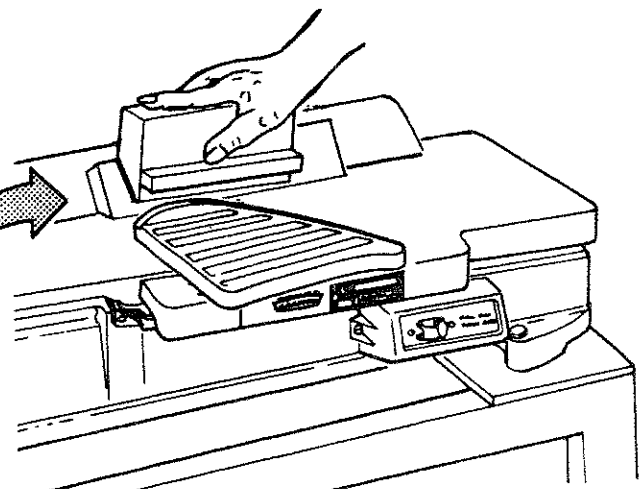
3. Wood Wider Than 3"

- a. Keep fingers close together near the top of the wood.



4. Wood Less Than 3" Wide

- a. Use both bevel hold-down/push blocks and apply pressure toward the fence, keep fingers above ledge.



5. Short Pieces

- a. Use one bevel hold-down/push block and apply pressure toward the fence. Keep thumb above ledge.

NOTE: For long pieces, follow same procedure for "Surface Planing."

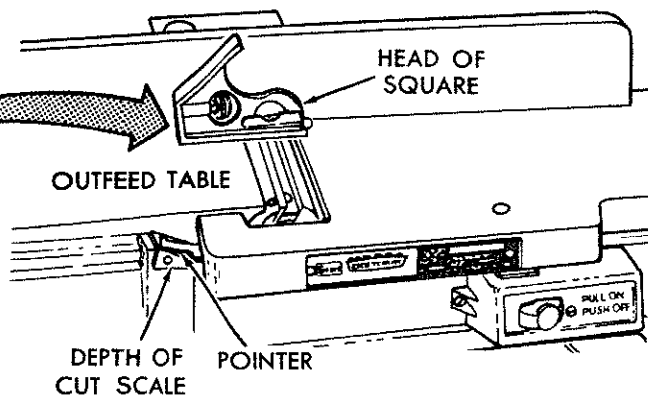
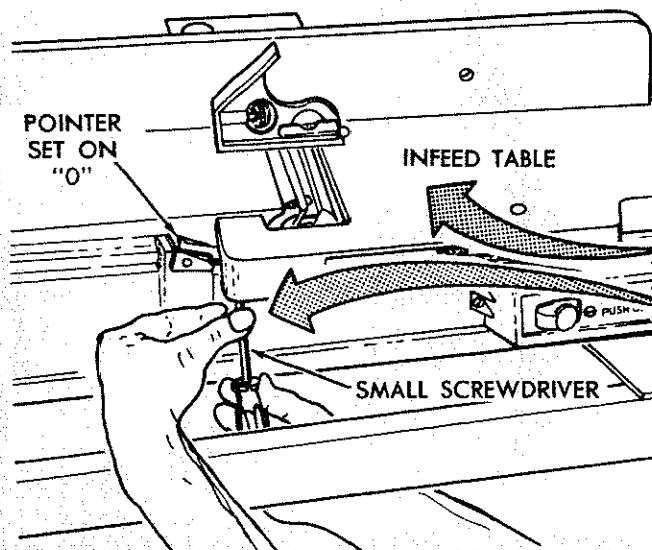
adjustments and maintenance

CAUTION: Always remove power cord from electrical outlet in your shop before making any adjustments.

-SPD-!

Depth of Cut Scale

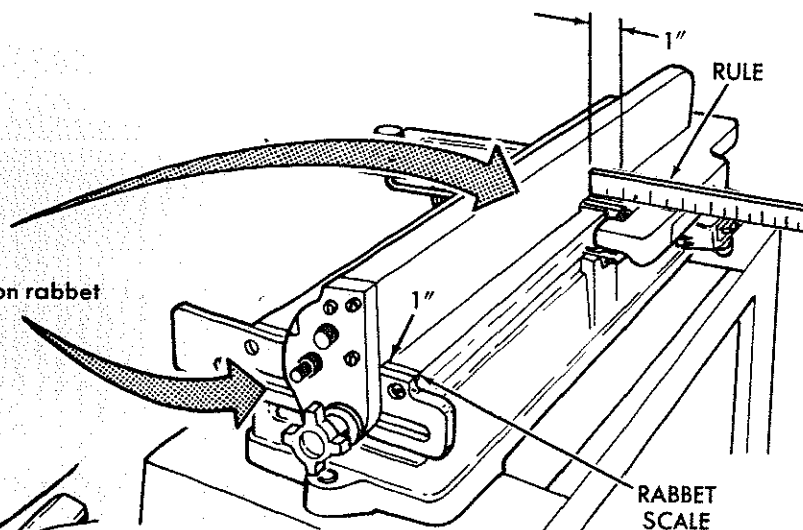
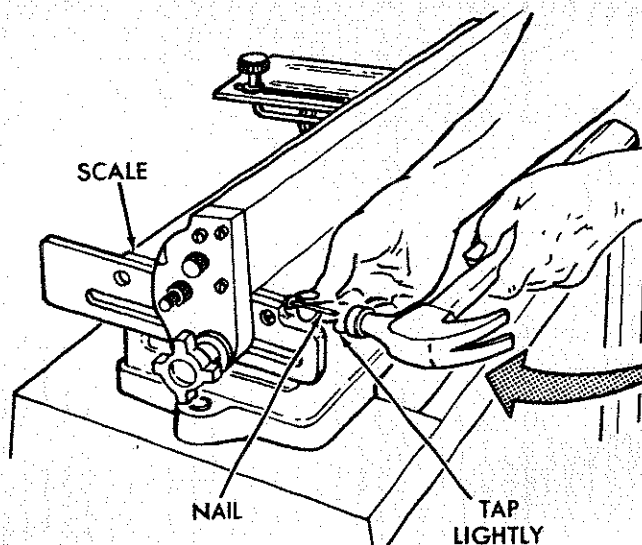
1. Remove cutter guard.
2. Place head of square on outfeed table.



3. Raise infeed table until it touches square.
4. Pointer should read "0". If it doesn't loosen screw and adjust pointer.
5. Re-install cutter guard.

Width of Rabbet Scale

1. Remove cutter guard.
2. Set fence 1" from end of blade and lock it.
3. Edge of fence should now line up with 1" mark on rabbet scale. If it doesn't move the scale.

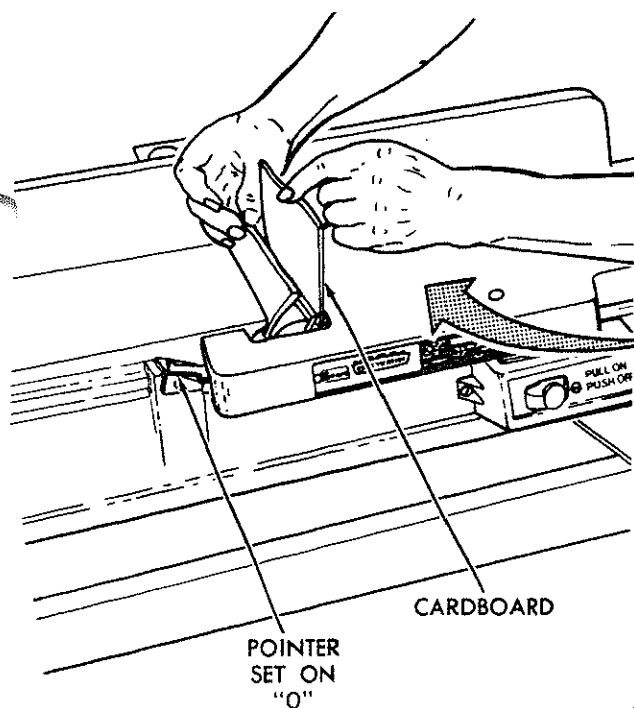
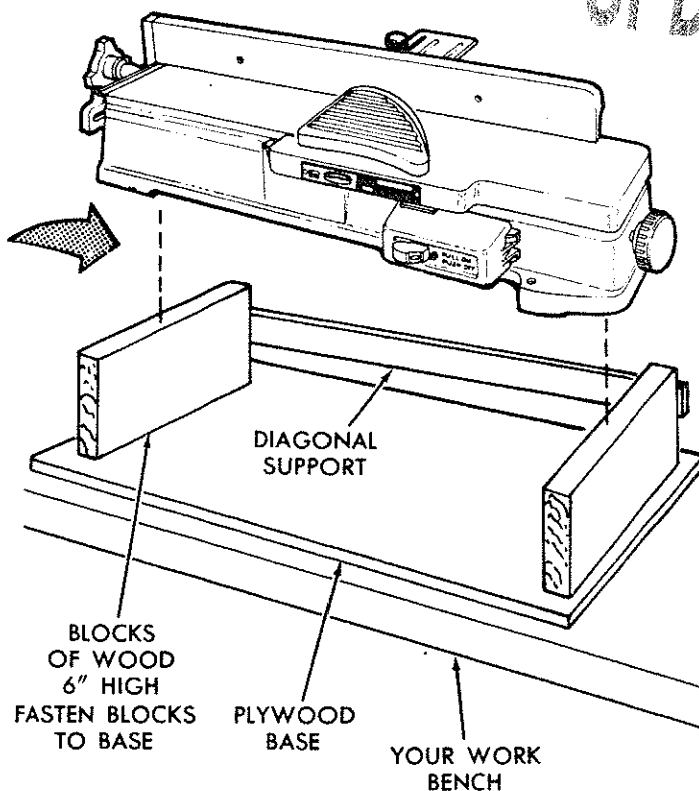


4. To move the scale, use a small nail and a hammer. Place the head of the nail against the end of the scale and tap lightly.
5. Re-install cutter guard.

Infeed Table

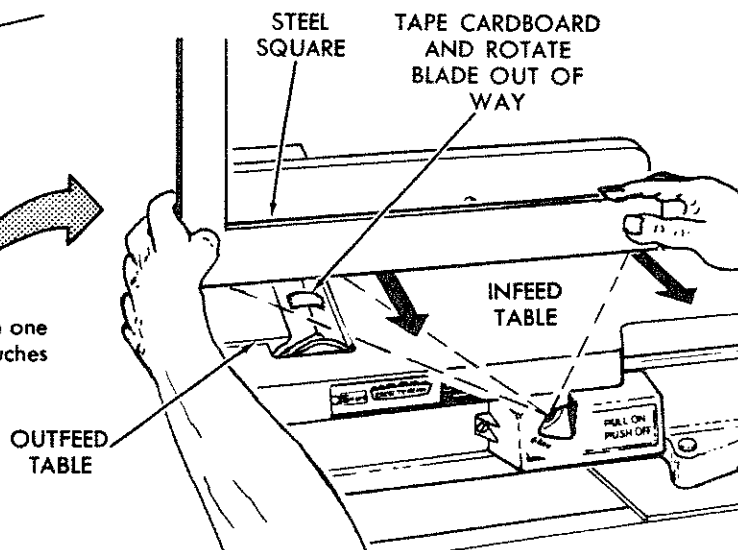
The infeed table must be parallel to the outfeed table.

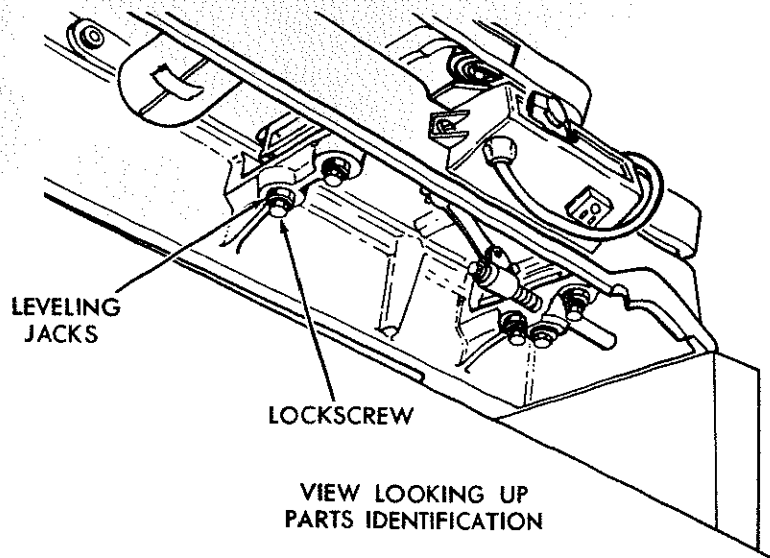
While adjusting it, the jointer must be in its normal position and not upside down or turned on its side. It is more convenient to make adjustments with the jointer-planer setting on a workbench rather than on the stand. Remove the fence, guard and V-belt. Place the jointer on a couple of blocks so you can reach the adjusting screws.



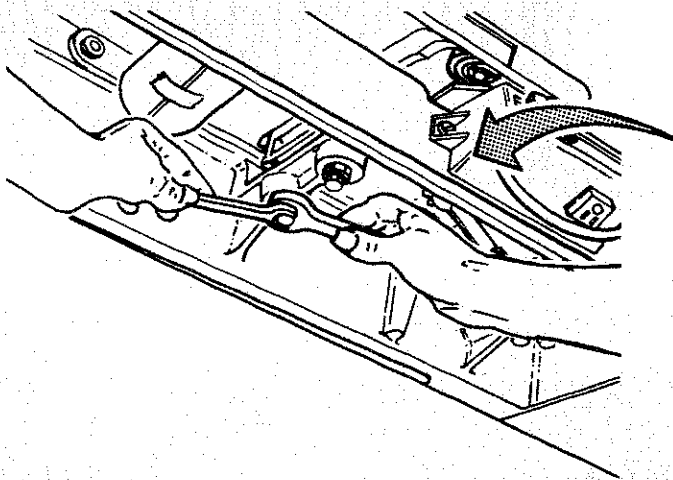
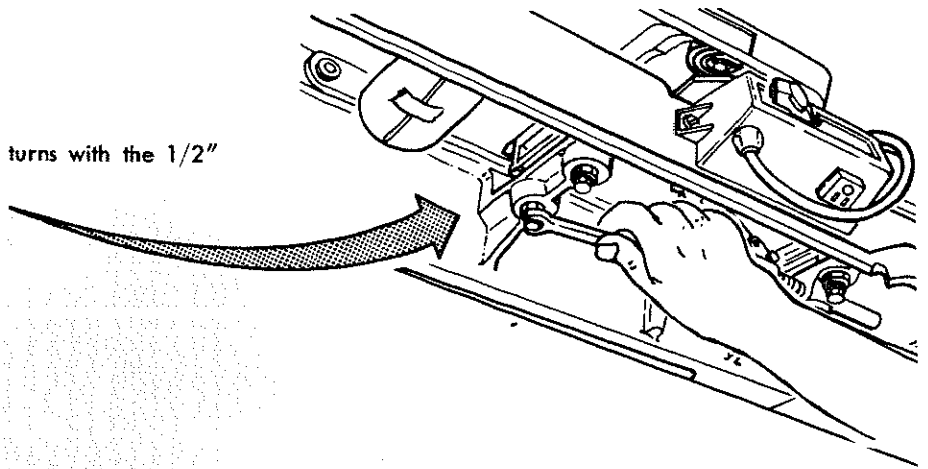
1. Wrap a piece of cardboard around the cutter head to protect your fingers and the blades.

2. Place the steel square on the outfeed table: First on one side, then the other. Raise the infeed table until it touches the square.





3. Loosen the four lock screws 2 or 3 turns with the 1/2" wrench.

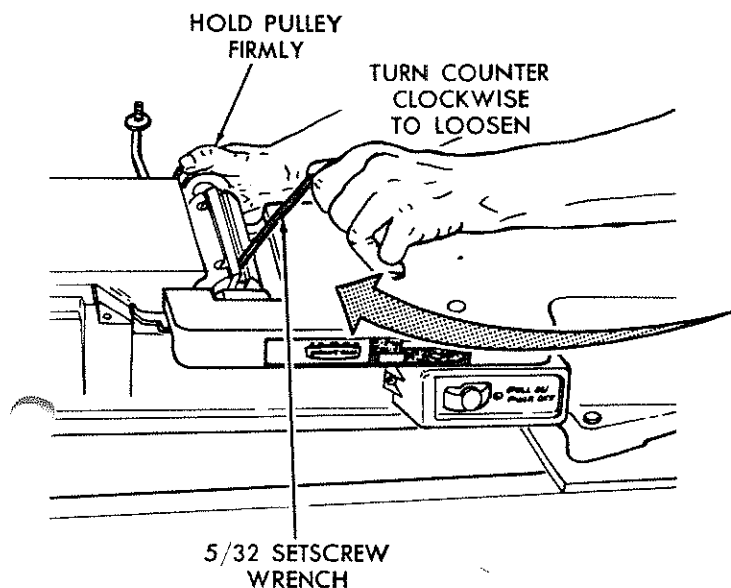
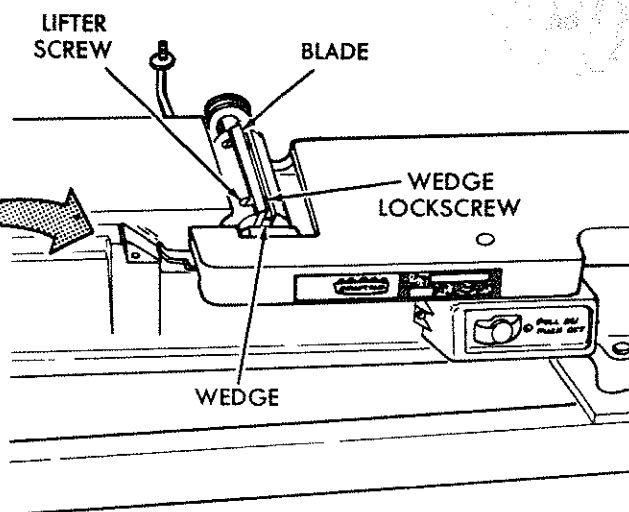


4. With the 3/4" wrench, turn the leveling jacks. Turning to the right will raise the table and turning to the left will lower it. Check the position of the infeed table at all four corners with your square resting on the outfeed table. When both tables are even, tighten the lock screws. Hold the leveling jacks with the 3/4" wrench when tightening the lock screws. Tighten each screw a little bit at a time until all four screws are tight. Recheck with the square to make sure the tables have remained even.

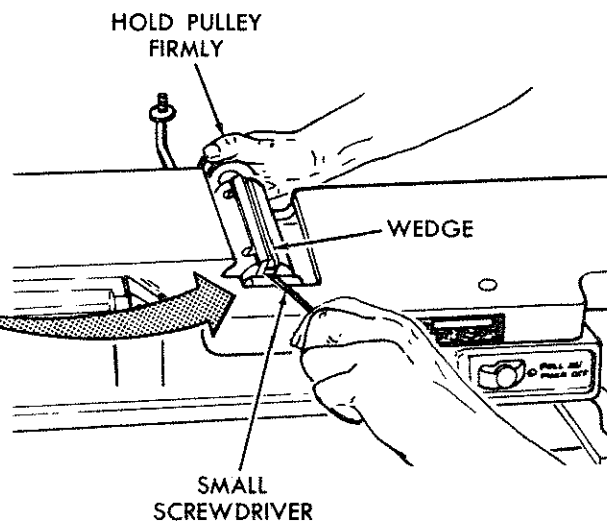
Replacing Cutter Blades

Use **CAUTION** whenever the blades are exposed.

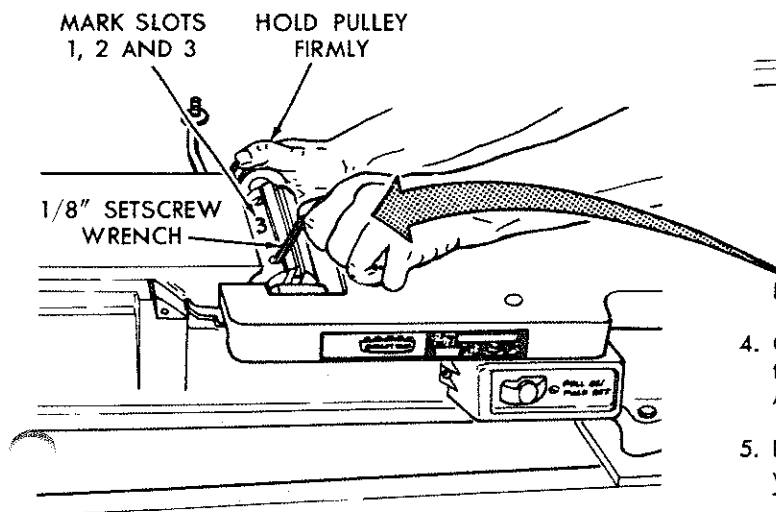
1. Remove power cord from electrical outlet.
2. Remove the cutter guard, the fence, the belt guard and V-belt.
3. Lower the infeed table all the way down.



3. Loosen the two lockscrows in each wedge and remove the wedge and blades.



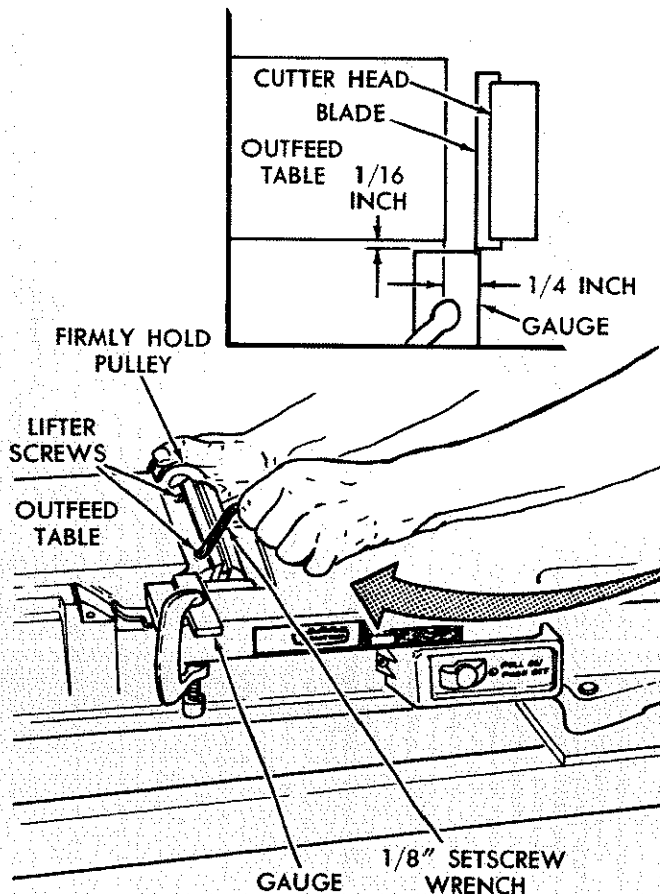
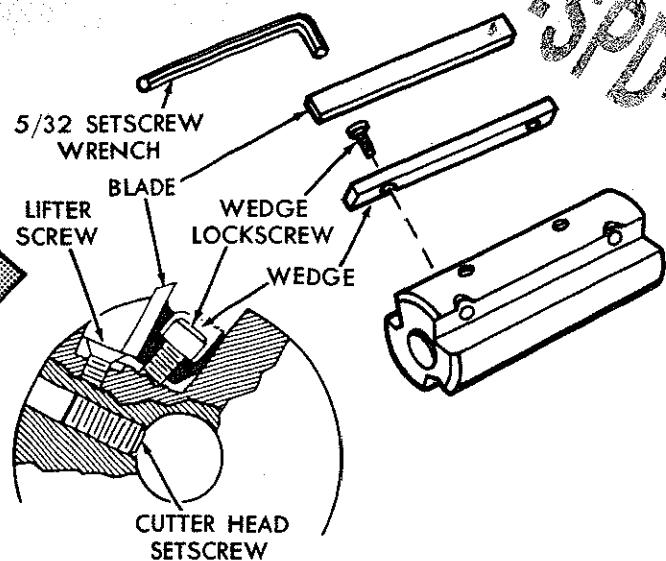
- a. Gently pry up the wedge with a small screwdriver.



- b. Remove the six lifter screws.

4. Clean the cutter head and the wedges and screws thoroughly with Craftsman Gum and Pitch Remover. Also remove the oil from the new blades.
5. Replace the six lifter screws and screw them in all the way, but do not tighten. Mark each slot, 1, 2, and 3. This will help you in setting the blades.

6. Insert a blade and a wedge in one of the slots and screw in the lockscrows, only tight enough to hold the blade. Do not tighten too much.



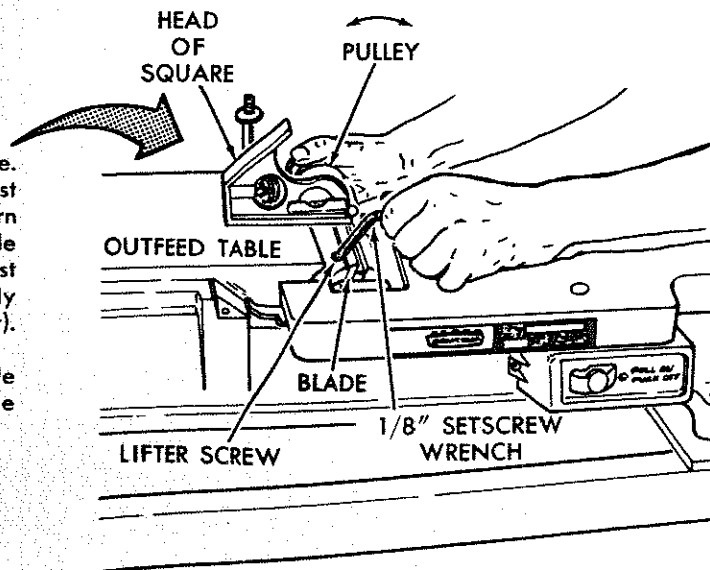
- a. Insert the blade so that it projects $1/16$ " beyond the edge of the outfeed table.

- b. Clamp a piece of metal or wood to the infeed table to act as a gauge for setting the other two blades. Place the gauge so it touches the end of the blade and is $1/4$ " from the edge of the outfeed table.

7. Place the head of your square on the outfeed table. Loosen the lifter screws to raise the blade until it just touches the square and slightly raises it. Gently turn the cutter head back and forth with the pulley while raising the blade. The blades should be adjusted just slightly above the outfeed table, by approximately .003" (the thickness of an average piece of paper).

8. Now tighten both lockscrows a little at a time while rechecking the blade to make sure it did not change position. Then tighten lockscrow securely.

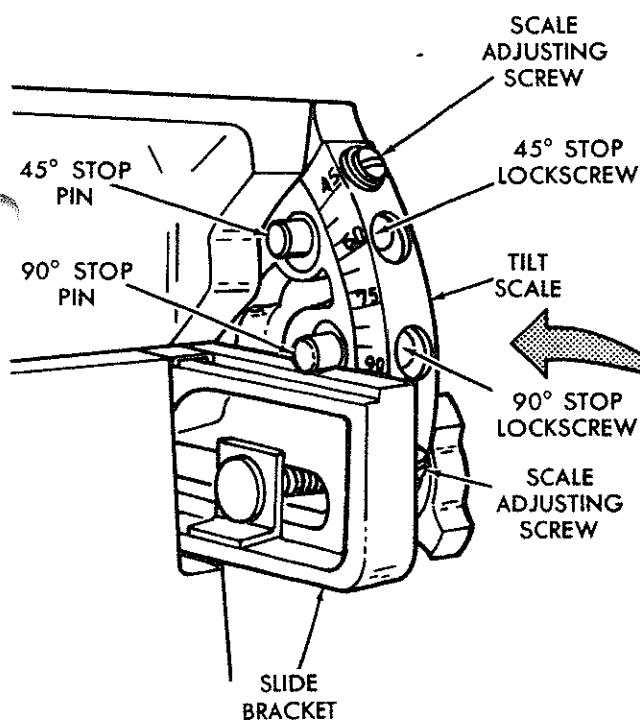
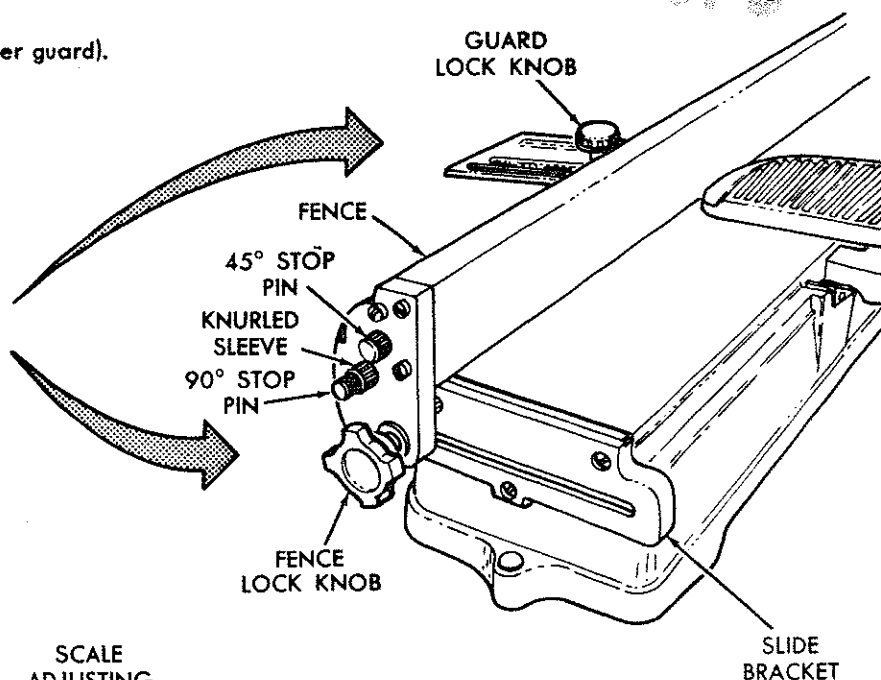
9. Install the other two blades the same way.



adjustments and maintenance

Fence and Tilt Scale (Do not remove cutter guard).

1. Slightly loosen both fence lock knobs.

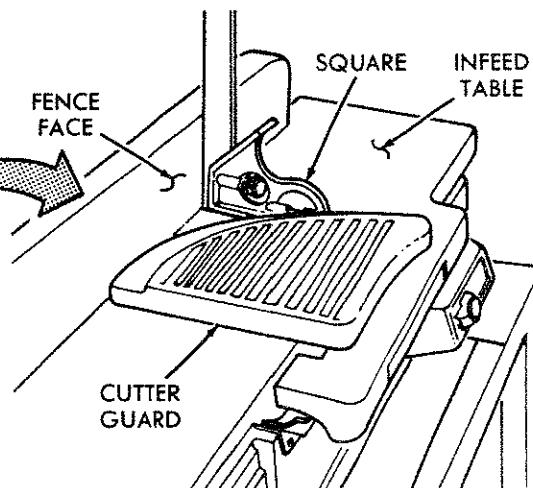


2. Loosen the 90° stop screw with a small screwdriver and turn the knurled sleeve which will cause the fence to tilt. Turn the sleeve in either direction until the fence is square with the infeed table.

3. Place square on infeed table against fence.

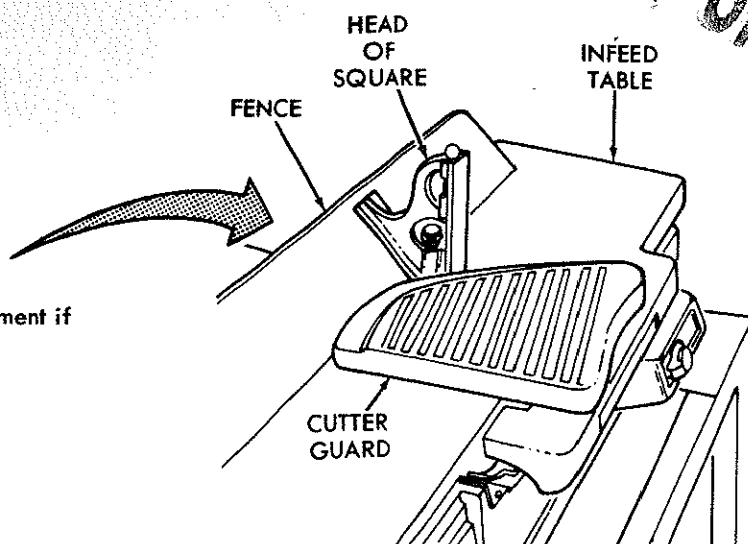
4. Tighten the 90° stop lock screw and both fence lock knobs.

5. If the 90° reading on the tilt scale does not line up with the top surface of the slide bracket, loosen the screws holding the scale and move it. Now tighten the screws.



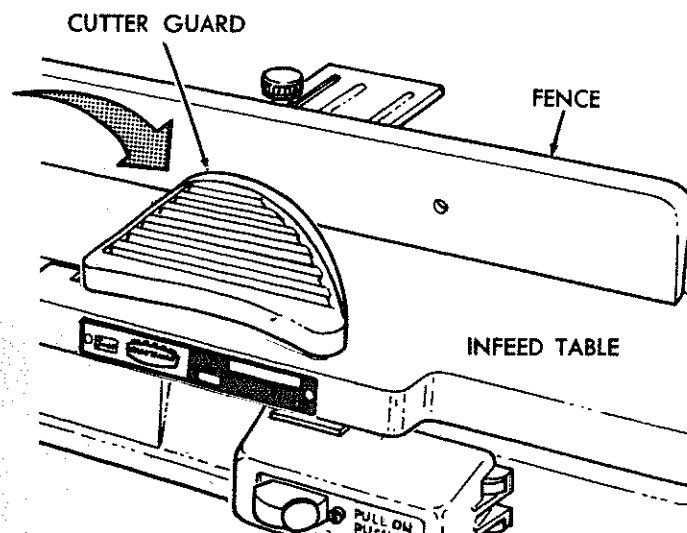
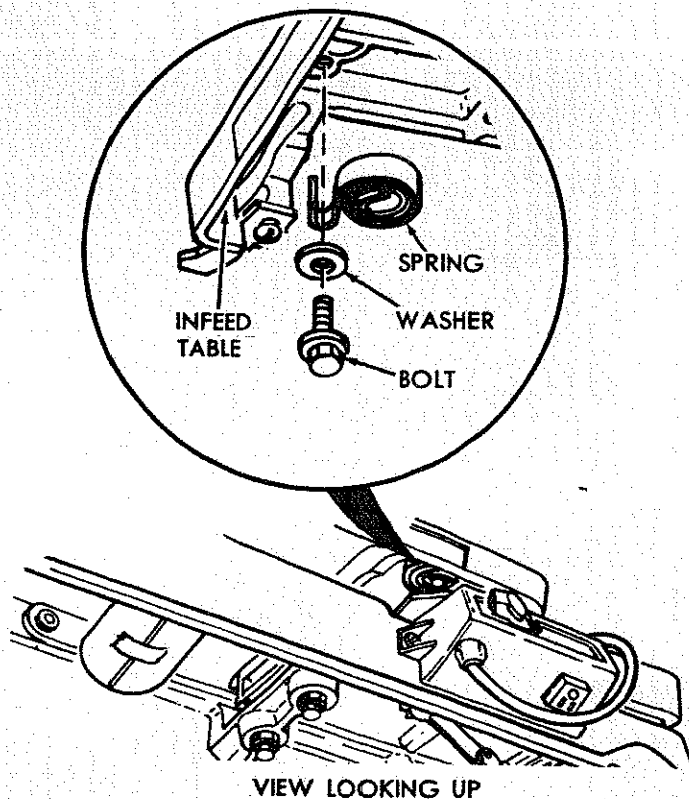
6. Adjust the 45° stop in the same manner.

NOTE: The tilt scale does not require adjustment if it was adjusted for the 90° position.



Cutter Guard

1. If the guard does not spring back against the fence, check to see if the spring is broken, installed upside down, or loose. If the spring is loose, make sure that the loop in the spring is against the screw and securely tightened. If the spring is broken, remove the guard and replace the spring.



2. Spring should appear as in sketch to the left from underside of the front table. It will not perform properly if installed upside down.
3. Install guard per assembly instructions under "Installing the cutter guard" on page 4.

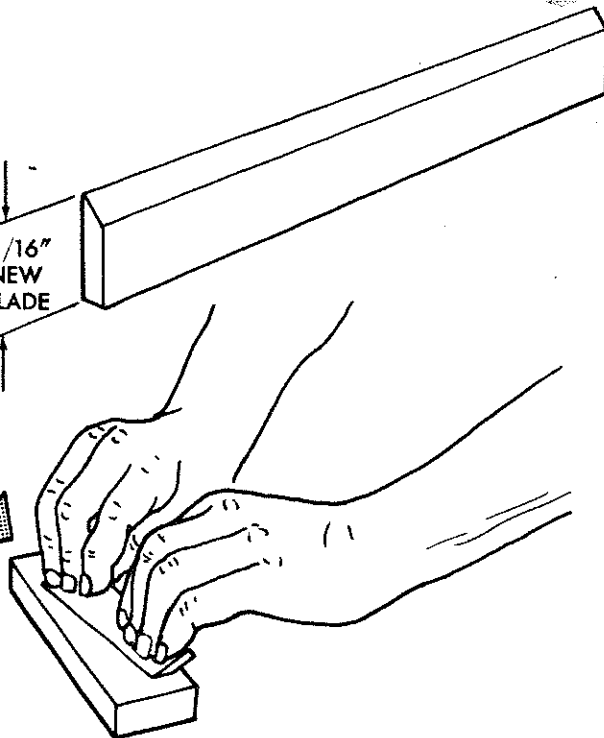
Sharpening the Blades

1. If the blades are nicked, they must be replaced or reground. They can be reground several times until they become $9/16$ " wide. **Never install reground blades less than $9/16$ " wide.**



$11/16$ "
NEW
BLADE

2. The blades can be honed individually with an ordinary oilstone.
3. Make sure your oilstone is not worn in the center. It must be flat.
4. Be sure to remove the burr on the flat side.



General Maintenance

Keep your jointer-planer clean. Put a carton or some kind of a container underneath your jointer-planer to catch the chips. The container should reach above the top of the motor.

Do not allow pitch to accumulate on the tables, the fence, the cutter guard, the cutter head or the knives. Clean them with Craftsman Gum and Pitch Remover.

Apply a thin coat of furniture wax on the tables and fence so that the wood slides easily while feeding.

Do not allow chips to accumulate on the underside of the jointer-planer.

Periodically apply a few drops of oil between the dovetail spacer and the dovetail slide, see figure 2, Parts List.

Keep the elevating screw clean and apply a few drops of oil periodically, see figure 2, Parts List.

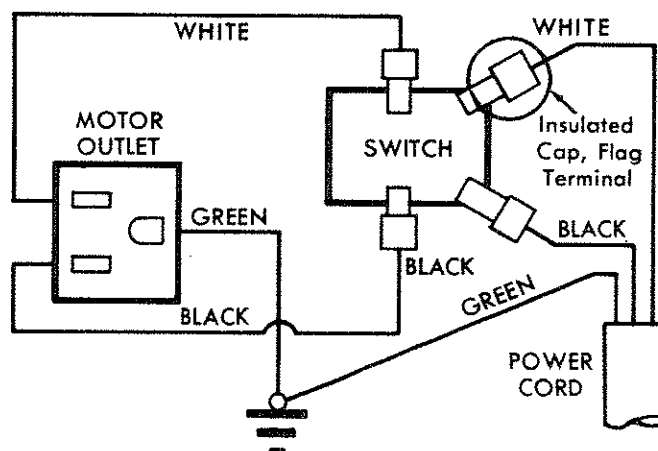
Frequently blow out any chips or dust from the motor.

RECOMMENDED ACCESSORIES

ITEM	CAT. NO.
Floor Base.....	9-2229
Cutter Blades.....	9-2293

The above recommended accessories are current and were available at the time this manual was printed.

WIRING DIAGRAM



TROUBLE SHOOTING

COMPLAINT	PROBABLE CAUSE	REMEDY
Motor will not run.	<ol style="list-style-type: none"> 1. Defective On-Off switch. 2. Defective switch cord. 3. Defective switch box receptacle. 4. Motor protector open, (only if your motor is equipped with an overload protector). 5. Other cause . 	<ol style="list-style-type: none"> 1. Replace switch. 2. Replace switch cord. 3. Replace switch box receptacle. 4. Reset protector, see instructions furnished with motor. 5. Consult Sears service.
Wood strikes outfeed table after passing over cutter head.	Blades improperly adjusted below surface of outfeed table.	Re-adjust blades, see Adjustment and Maintenance section.
Ripples on planed surface.	<ol style="list-style-type: none"> 1. One blade set higher than other. 2. Feeding wood too fast. 	<ol style="list-style-type: none"> 1. Re-adjust blades, see Adjustment and Maintenance section. 2. Feed wood slower.
Planed surface not straight.	Infeed table out of adjustment.	Re-adjust infeed table, see Adjustment and Maintenance section.
Excessive gouging at end of cut.	Blades set too high above outfeed table.	Reset blades, see Adjustment and Maintenance section.
90° and 45° cuts inaccurate.	<ol style="list-style-type: none"> 1. Fence stops not adjusted properly. 2. Fence slide bracket not even with table. 	<ol style="list-style-type: none"> 1. Re-adjust fence stops, see Adjustment and Maintenance section. 2. Refer to figure 1, Parts List and adjust slide bracket even with the table.
Infeed table loose.	<ol style="list-style-type: none"> 1. Dovetail spacer requires adjustment. 2. Female dovetail loose from table. 	<ol style="list-style-type: none"> 1. Tighten screw, see figure 2, Parts List. 2. Tighten screws, see figure 2, Parts List.
Cutter head guard does not function properly.	<ol style="list-style-type: none"> 1. Return spring broken. 2. Guard not adjusted properly. 3. Return spring not adjusted properly. 	<ol style="list-style-type: none"> 1. Replace spring immediately, see Adjustment and Maintenance section. 2. Re-adjust guard, see Adjustment and Maintenance section. 3. Adjust spring, see Adjustment and Maintenance section.

POWER TOOL GUARANTEE

During the first year, we will repair your Craftsman Jointer-Planer free of charge, if defective in material or workmanship.

This guarantee service is available through any of our stores, or service centers throughout the United States.

SEARS, ROEBUCK AND CO.
SIMPSON-SEARS LIMITED

CRAFTSMAN 6 1/8-INCH JOINTER-PLANER MODEL No. 113.20650

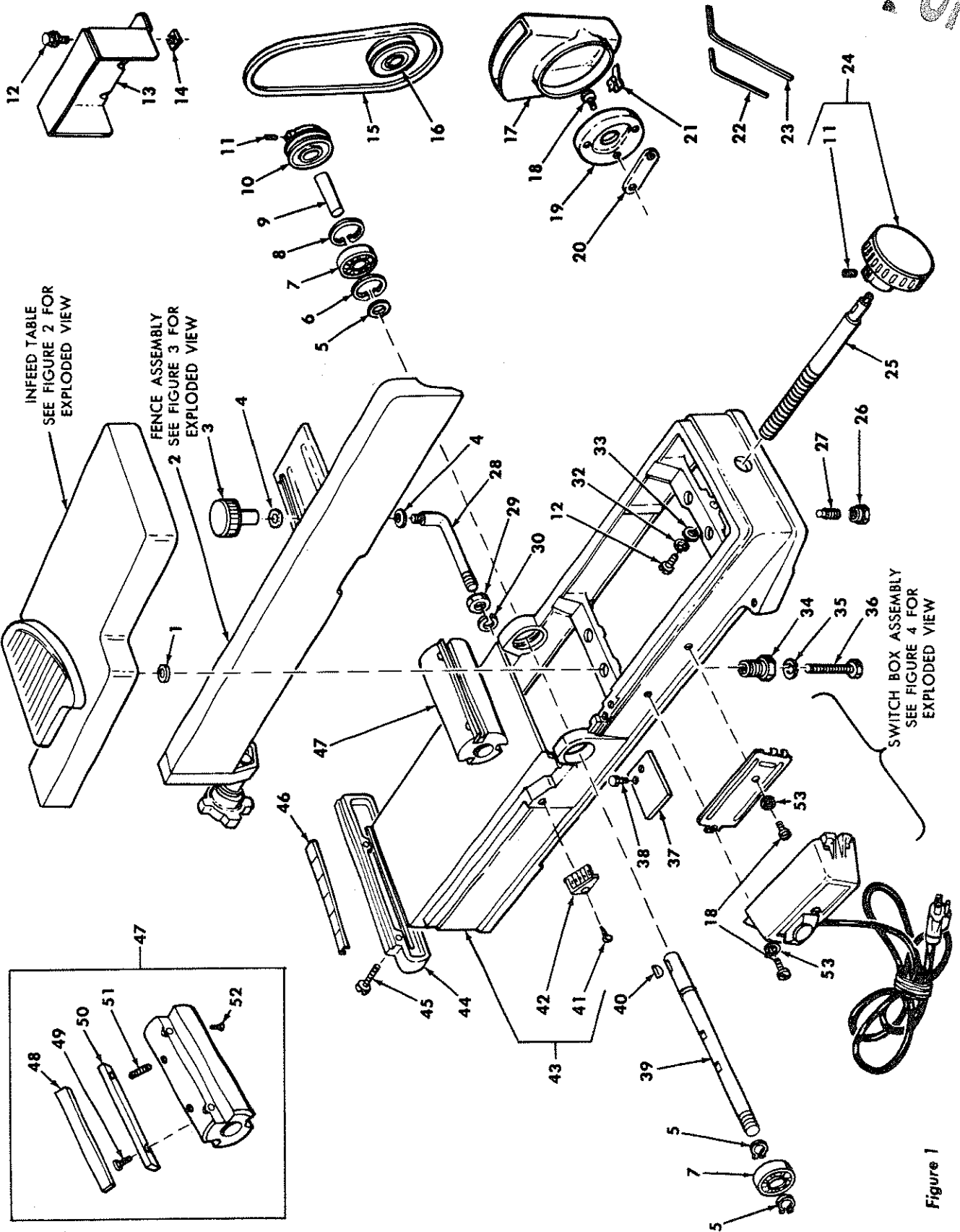


Figure 1

CRAFTSMAN 6 1/8-INCH JOINTER-PLANER MODEL No. 113.20650
21013 FENCE ASSEMBLY

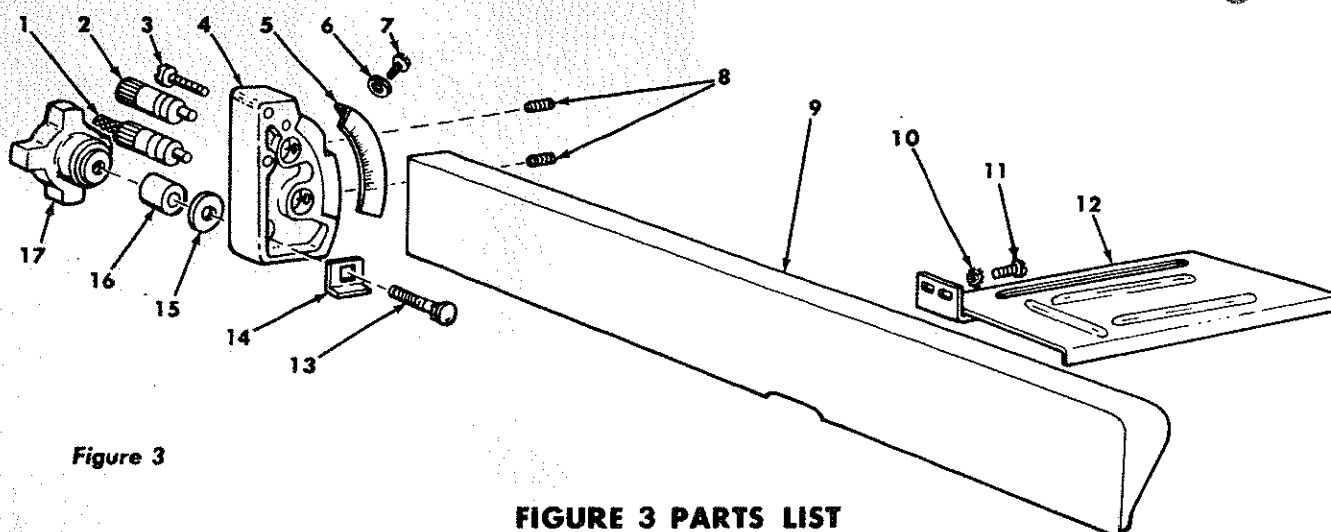


Figure 3

FIGURE 3 PARTS LIST

Key No.	Part No.	Description
1	21440	Plunger Assembly
2	21430	Pin Assembly, Stop
3	132280	*Screw, Mach., 1/4-20 x 1-1/4, Fil. Hd. Slotted
4	21232	Plate, Fence End
5	21736	Scale, Fence Tilt
6	60182	*Washer, Plain, 13/64 I.D. x 1/2 O.D. x 3/64
7	436691	*Screw, Mach., No. 8-32 x 1/4, Bind Hd., Slotted
8	102817	Screw, Set, 1/4-20 x 1/2, Full Dog Pt., Slotted

Key No.	Part No.	Description
9	21229	Body, Fence
10	114603	*Washer, Lock, Ext. Tooth
11	132823	*Screw, Mach., No. 10-24 x 1/4, Rd. Hd., Slotted
12	67009	Guard, Cutter
13	126699	*Bolt, Carriage, 3/8-16 x 2-1/2 Round Head
14	21738	Retainer, Bolt
15	60121	*Washer, Plain, 25/64 I.D. x 1-1/8 O.D. x 7/64
16	47624	Spacer
17	62275	Knob Assembly, Lock

SWITCH BOX ASSEMBLY

Figure 4

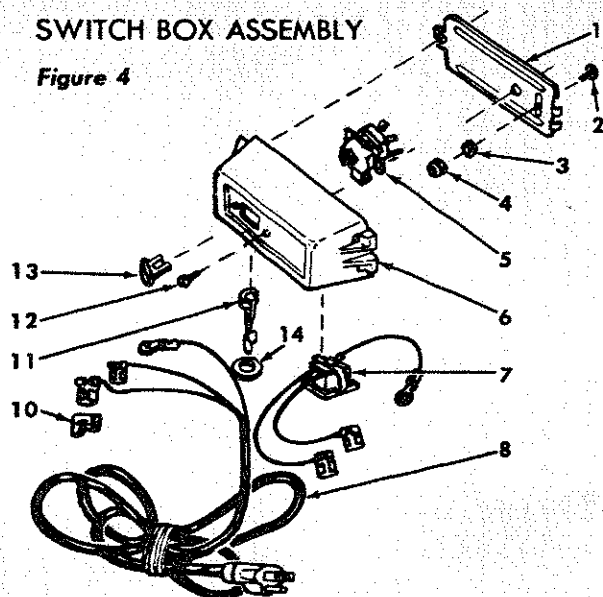


FIGURE 4 PARTS LIST

Key No.	Part No.	Description
1	60269	Bracket, Housing
2	448033	*Screw, Ty 23, 10-32 x 3/8 Pan Hd.
3	115545	*Lockwasher, No. 10 Int. Tooth
4	115999	*Nut-Hex. 10-32 x 3/8 x 1/8
5	60267	Switch, Locking
6	60316	Box, Switch
7	62376	Outlet
8	60271	Cord With Plug
10	63467	Cap, Flag Terminal, Insulated
11	37818	Relief, Strain
12	60287	*Screw, Nylon, 6-32 x 1/4
13	60256	Key, Switch
14	60317	*Washer, 21/32 x 1 x 1/64

*Standard Hardware Item—May Be Purchased Locally.

SEE WIRING DIAGRAM, PAGE 26

SPD

CRAFTSMAN 6 1/8-INCH JOINTER-PLANER MODEL No. 113.20650 INFEED TABLE

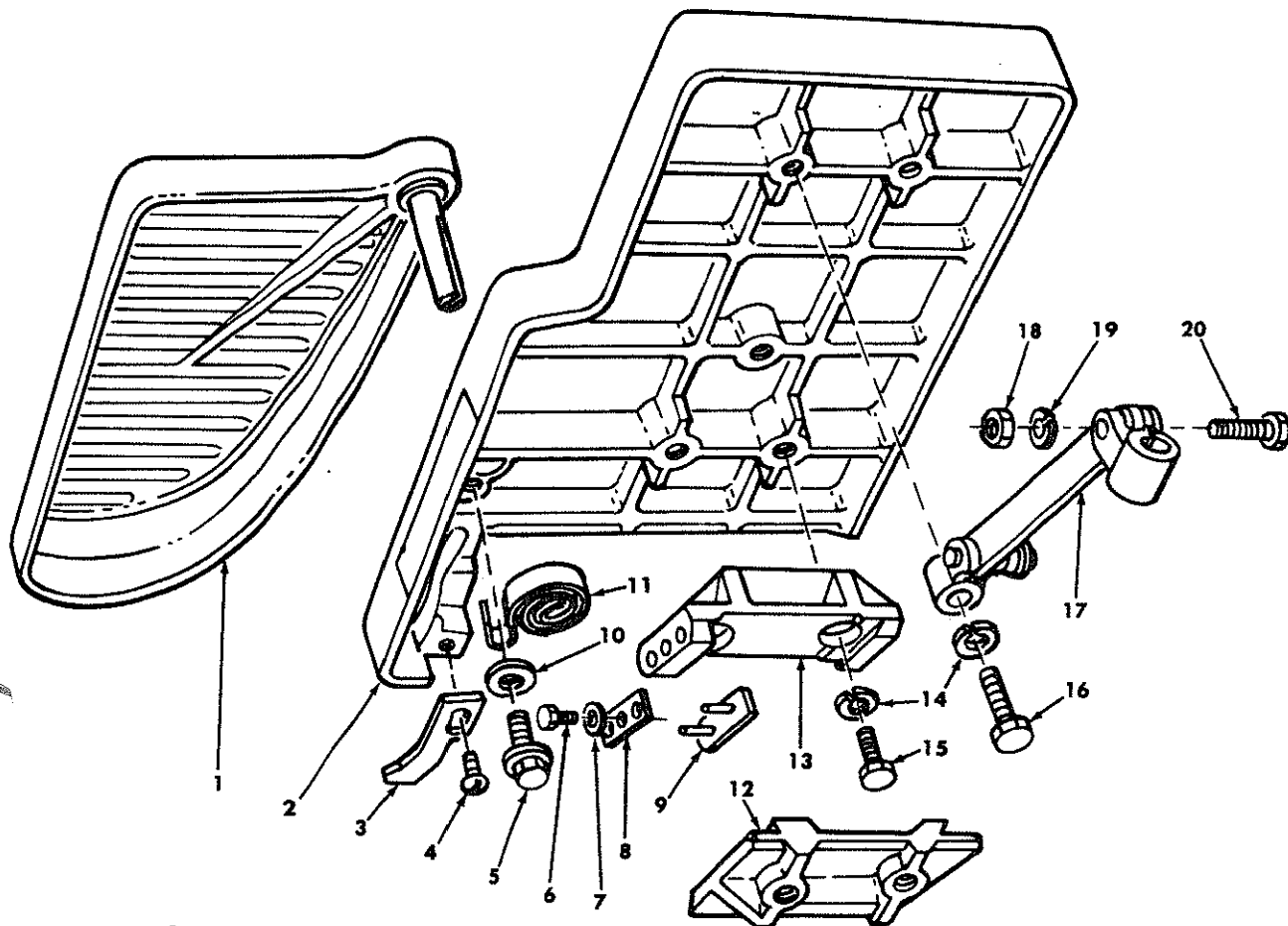


Figure 2

FIGURE 2 PARTS LIST

Key No.	Part No.	Description
1	21520	Guard
2	67001	Table (with Name Plate)
3	21735	Pointer, Depth of Cut
4	132823	*Screw, Mach., No. 10-24 x 1/4, Rd. Hd., Slotted
5	60099	*Screw, No. 10-24 x 5/8, Spin Lock
6	443507	*Screw, Cap, 1/4-20 x 1/2, Hex. Hd.
7	60040	*Washer, Plain, 17/64 I.D. x 3/4 O.D. x 3/64
8	21812	Plate, Tension
9	21422	Spacer, Dovetail
10	60182	*Washer, Plain, 13/64 I.D. x 1/2 O.D. x 3/64

Key No.	Part No.	Description
11	38779	Spring, Guard (Includes Key 5 & 10)
12	21219	Dovetail, Male
13	21218	Dovetail, Female
14	131201	*Washer, Split Lock, 5/16 x .117 x .056
15	21635	Screw, Spl.
16	60038	*Screw, Cap, 5/16-18 x 1-1/4, Hex. Hd.
17	21204	Linkage Assembly
18	115120	*Nut, Hex., 1/4-20 x 7/16 x 3/16
19	115109	*Washer, Split Lock, 1/4 x .109 x .062
20	60098	*Screw, Cap, 1/4-20 x 1, Hex. Hd.

* Standard Hardware items—May be Purchased Locally.

PARTS LIST

CRAFTSMAN 6 1/8-INCH JOINTER-PLANER MODEL No. 113.20650

All parts illustrated in Figures 1 through 4 and listed under part numbers may be ordered through any Sears Retail Store or Catalog Order House. Order parts by mail from the Catalog Order House that serves the territory in which you live. In several instances, part numbers are listed for COMPLETE ASSEMBLIES. All parts are shipped prepaid within the limits of the Continental United States.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN ON THIS LIST:

1. THE PART NUMBER
 2. THE PART NAME
 3. THE MODEL NUMBER — 113.20650
 4. THE NAME OF ITEM — 6 1/8-INCH JOINTER-PLANER
- Always order by Part Number — not by Key Number

FIGURE 1 PARTS LIST

Key No.	Part No.	Description	Key No.	Part No.	Description	Key No.	Part No.	Description
1	18437	Washer	20	60254	Bracket-Support	38	60078	*Screw, Mach., 5/16-18 x 1/2, Hex. Hd.
2	21013	Fence Assembly, Complete (See Fig. 2)	21	60255	Clip, "S"	39	21636	Arbor
3	21416	Knob, Sliding Guard	22	37887	*Wrench Hex., 1/8	40	106751	Key, Woodruff, No. 9
4	21622	Washer, Sliding Guard	23	60096	*Wrench, Hex., 5/32	41	145372	Screw, Drive, No. 4 x 1/4 In.
5	37158	Ring, Retaining	24	38530	Handwheel, Includes Key No. 11	42	21734	Scale, Depth of Cut
6	18441	Ring, Retaining	25	21639	Screw, Elevating	43	21540	Base, Includes Key Nos 41 & 42
7	3509	Bearing, Ball	26	118614	*Nut, Hex., 5/16-18 x 1/2 x 17/64	44	21237	Bracket, Fence Slide
8	38879	Ring, Bowd Retaining	27	102832	Screw, Set, 5/16-18 x 1, Full Dog Pt., Slotted Hd.	45	132275	Screw, Mach., 1/4-20 x 1, Fil. Hd. Slotted
9	21817	Spacer	28	21638	Rod, Sliding Guard	46	21739	Scale
10	38160	†Pulley with Set Screw, 2" Dia. x 1/2" V-Groove, 5/8" Bore, Keyed	29	118647	*Nut, Hex., 1/2-13	47	21450	Head Assembly, Complete Cutter
11	115321	*Screw, Set, 5/16-8 x 5/16, Soc. Hd.	30	60114	*Washer, Split Lock, 1/2	48	18112	†Blade, Cutter
12	443507	*Screw, Hex. Hd. 1/4-20 x 1/2	32	115109	*Washer, Split Lock, 1/4	49	60116	*Screw, Cap. No. 10-32 x 3/4 Soc. Hd.
13	67008	Belt Guard, Pulley	33	60113	*Washer, Plain, 17/64 I.D. x 3/4" O.D. x 7/64	50	21632	Wedge, Cutter Blade
14	115120	*Nut, Hex. 1/4-20 x 7/16 x 3/16	34	18516	Stud, Leveling	51	60117	*Screw, Set, 5/16-24 x 7/8, Soc. Hd.
15	60115	Belt, "V" 1/2 x 37	35	131201	Lock Washer, 5/16 x .117 x .056	52	60118	*Screw, Mach., No. 10-32 x 1/2, Flat. Soc. Hd.
16	30646	†Pulley with Set Screw, 2 1/2 Dia. x 1/2" V-Groove, 5/8" Bore, Keyed	36	60101	Screw, Hex. Hd., 5/16-18 x 1-3/4	53	115545	*Lockwasher, No. 10 Int. Tooth Owner's Manual (Not Illustrated)
17	60252	Guard-Belt, Motor	37	21733	Support-Guard Pin	67007		
18	448035	*Screw, Ty 23 Pan 10-32 x 1/2						
19	60253	Support-Belt Guard						

*Standard Hardware Item—May Be Purchased Locally.

†Stock Item—May be secured through the Hardware Department of most Sears or Simpsons-Sears Retail Stores or Catalog Order Houses.

• Not Supplied in Canada.

NOTE: Shipping and handling charges for standard hardware items (identified by*) such as nuts, screws, washers, etc., make buying these items by mail uneconomical. To avoid shipping and handling charges, you may obtain most of these locally.

Sears owners manual

-SPD.7

CRAFTSMAN 6 $\frac{1}{8}$ -INCH JOINTER-PLANER

MODEL No.
113.20650

HOW TO ORDER REPAIR PARTS

SEARS SERVICE
IS AT YOUR SERVICE
WHEREVER YOU LIVE
OR MOVE IN THE U.S.A.

The Model Number will be found on a plate attached to your infeed table. Always mention this Model Number when requesting service or repair parts for your CRAFTSMAN 6 $\frac{1}{8}$ -INCH JOINTER-PLANER.

All parts listed herein may be ordered through SEARS ROEBUCK AND CO. or SIMPSONS-SEARS LIMITED. When ordering parts by mail, selling prices will be furnished on request or parts will be shipped at prevailing prices and you will be billed accordingly.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST.

- | | |
|-------------------------|---------------------------------|
| 1. The PART NUMBER | 4. The NAME OF ITEM— |
| 2. The PART DESCRIPTION | CRAFTSMAN 6 $\frac{1}{8}$ -INCH |
| 3. The MODEL NUMBER | JOINTER-PLANER |
| 113.20650 | |

Your Sears merchandise takes on added value when you discover that Sears has over 2,000 Service Units throughout the country. Each is staffed by Sears-trained, professional technicians using Sears approved parts and methods.

SEARS, ROEBUCK AND CO. U.S.A.
SIMPSONS-SEARS LIMITED, CANADA