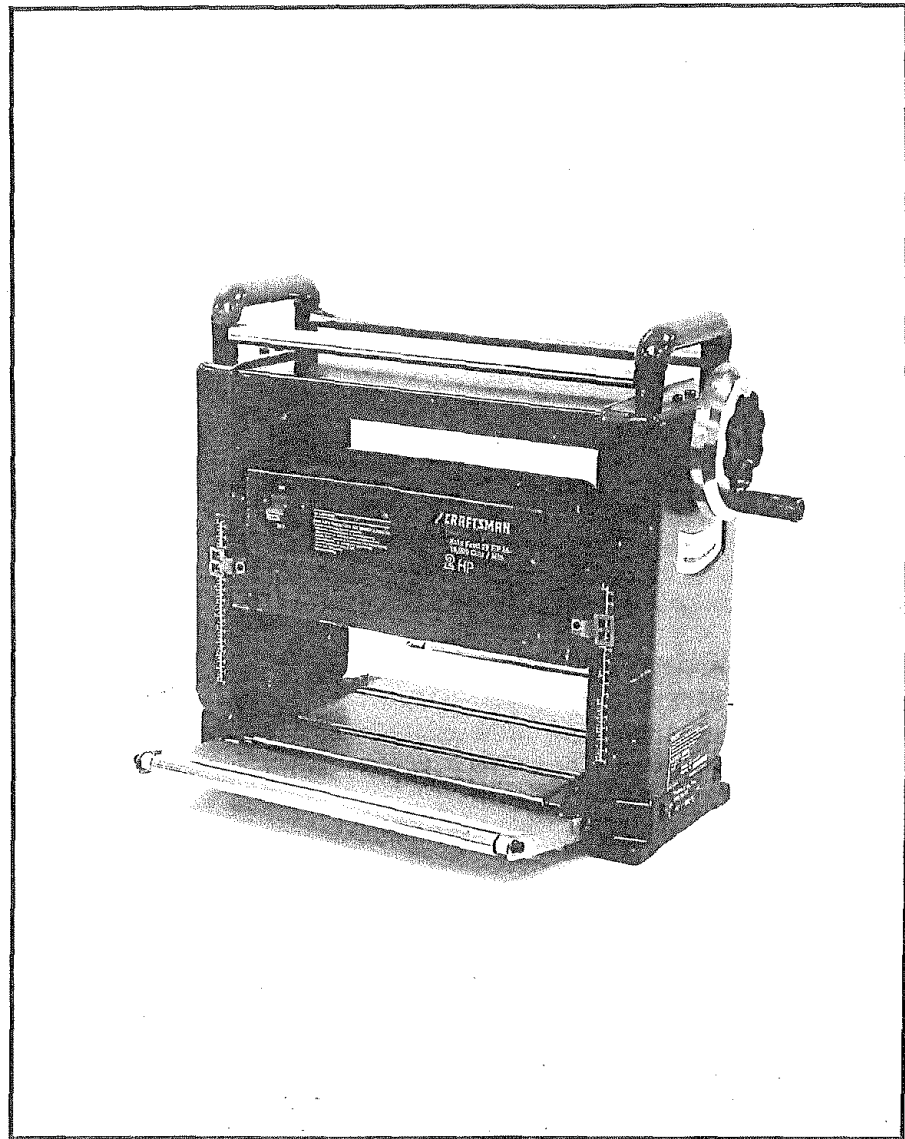


SAVE THIS MANUAL  
FOR  
FUTURE REFERENCE

**SEARS**

OWNER'S  
MANUAL

MODEL NO.  
351.233731



**SEARS/CRAFTSMAN**

## 12 1/2" PLANER

- safety instructions
- operating instructions
- replacement parts

**CAUTION:**

READ ALL  
INSTRUCTIONS  
CAREFULLY!

Sold by SEARS, ROEBUCK AND CO., Chicago, IL 60684 U.S.A. ©

Part No. 4290.01

October 1991

## FULL ONE YEAR WARRANTY ON SEARS/CRAFTSMAN 12 1/2" Thickness Planer

If within one full year from the date of purchase, this Sears Craftsman 12 1/2" Thickness Planer fails due to a defect in material or workmanship, Sears will repair it, free of charge. WARRANTY SERVICE IS AVAILABLE BY SIMPLY CONTACTING THE NEAREST SEARS STORE OR SERVICE CENTER THROUGHOUT THE UNITED STATES.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

SEARS, ROEBUCK AND CO., DEPT.698/731A SEARS TOWER, CHICAGO, IL 60684

## GENERAL SAFETY INSTRUCTIONS FOR POWER TOOLS

**BEFORE ANY WORK IS DONE, READ THE CAUTIONS LISTED BELOW CAREFULLY. WORKING SAFELY PREVENTS ACCIDENTS.**

**OPERATOR SHOULD BE PREPARED FOR THE JOB**

- a. **Wear proper apparel.** Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of the machine.
- b. **Wear protective hair covering** to contain long hair.
- c. **Wear safety shoes** with non-slip soles.
- d. **Wear safety glasses.** Everyday glasses have only impact resistant lenses. They are not safety glasses.
- e. **Wear face mask** or dust mask if cutting operation is dusty.
- f. **Be alert and think clearly.** Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

**WORK AREA SHOULD BE READY FOR THE JOB:**

- a. **Keep work area clean.** Cluttered work areas and workbenches invite accidents.
- b. **Do not use power tools in dangerous environments.** Do not use power tools in damp or wet locations. Do not expose power tools to rain.
- c. **Work area should be properly lighted.**
- d. **The proper electrical outlet** should be available for the tool. A three-prong plug should be plugged directly into a properly grounded three-prong receptacle.
- e. **Extension cords** should have a ground prong and the three wires of the extension cord should be the correct gauge.
- f. **Keep visitors a safe distance** from work area.
- g. **Keep children out of workplace.** Make workshop children-proof. Use padlocks, master switches and remove starter keys to prevent any unintentional use of power tools.

**TOOL SHOULD BE MAINTAINED:**

- a. **Always unplug power tool** prior to inspection.
- b. **Consult the owner's manual** for specific maintaining and adjusting procedures.
- c. **Keep machine lubricated.**
- d. **Use sharp blades** and keep the tool clean for safest operation.
- e. **Remove adjusting keys and wrenches.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning on.

- f. **Keep all guards in place** and in working order.
- g. **Keep all parts in working order.** Check to determine that the guard or other parts will operate properly and perform their intended function.
- h. **Check for damaged parts.** Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other condition that may affect a tool's operation.
- i. **A guard or other part** that is damaged should be properly repaired or replaced. Do not perform makeshift repairs (use the parts list provided with owner's manual to order replacement parts).

**OPERATOR SHOULD KNOW HOW TO USE TOOL:**

- a. **Use the right tool for the job.** Do not force a tool or attachment to do a job for which it was not designed.
- b. **Disconnect tool when changing accessories,** such as blades, bits, cutters and the like.
- c. **Avoid accidental start-up.** Make sure that the machine is in the "off" position before plugging in.
- d. **Do not force a tool. It will work most efficiently at the rate for which it was designed.**
- e. **Use recommended accessories.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
- f. **Handle the workpiece correctly.** Use push sticks or push blocks when required; protect hands from possible injury.
- g. **Direction of feed.** Feed work into a blade or cutter against direction of rotation of the blade or cutter.
- h. **Turn the machine off if it jams.** A blade jams when it digs too deeply into the work (the motor force keeps it stuck in the work).
- i. **Never leave a tool running unattended.** Turn the power off and do not leave tool until it comes to a complete stop:
- j. **Do not overreach.** Keep proper footing and balance.
- k. **Never stand on tool.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
- l. **Keep hands away** from moving parts and cutting surfaces.
- m. **Know your power tool.** Learn its operation, application and specific limitations.

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## WARNING LABELS

The 12 1/2" thickness planer has been marked with warning labels that need to be observed for safe operation. The operator should be aware of the location and contents of these labels.

These warning labels are placed in specific locations so they are visible to the operator when starting and operating the tool.

<p><b>LABEL ON FRONT OF UNIT</b></p> <p>WARNING: FOR SAFE OPERATION SEE OWNER'S MANUAL Keep hands away during operation. Allow the automatic feed to function properly. Do not push or pull workpiece through machine. Cutterhead must be at a complete stop before freeing the workpiece or making any adjustments. Do not cut deeper than 1/16". Wear eye protection.</p>	<p><b>LABEL ON SIDE OF UNIT</b></p> <p>WARNING: Always use planer with cutterhead guard. Cutterhead must be at a complete stop before freeing the workpiece or making any adjustments. Use only identical replacement parts.</p>	<p><b>LABEL ON CUTTERHEAD GUARD</b></p> <p>WARNING ● TO REDUCE RISK OF INJURY, ATTACH THE SAFETY COVER BEFORE OPERATING.</p>
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## SAFETY INSTRUCTIONS FOR 12 1/2" THICKNESS PLANER

**WARNING: DO NOT ATTEMPT TO OPERATE PLANER UNTIL IT IS COMPLETELY ASSEMBLED ACCORDING TO INSTRUCTIONS.**

- KNOW GENERAL POWER TOOL SAFETY.** Make sure all precautions are understood and provided for (see page 2).
- SECURE ALL FASTENERS.** Frequently check that nuts and bolts are tight and have not vibrated loose.
- FOLLOW OPERATION INSTRUCTIONS.** Operate the planer as described in the manual.
- DO NOT FORCE THE CUT.** Slowing or stalling the motor will overheat it. Allow the automatic feed to function properly.
- SUPPORT WORKPIECE.** Do not allow the board to hang from the planer. Use support rollers.
- USE QUALITY LUMBER.** Blades last longer and cuts go smoother on good wood.
- DO NOT PLANE UNDERSIZED WOOD.** Boards which are too thin or too short could split while being planed.
- TAKE PRECAUTIONS AGAINST KICKBACK.** Do not permit anyone to stand or cross in line with the cutterhead's rotation. A kickback or thrown debris will travel in this direction.
- KEEP PLANER MAINTAINED.** Follow maintenance instructions (see page 8).

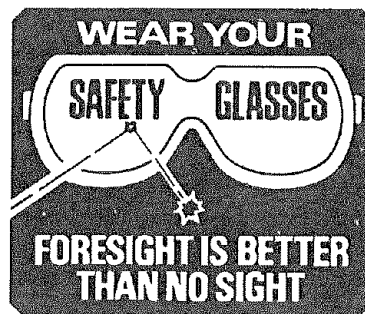
- DISCONNECT POWER.** Turn switch "OFF" and disconnect power whenever planer is not in use.

**CAUTION: DO NOT ALLOW FAMILIARITY (GAINED FROM FREQUENT USE OF YOUR PLANER) TO BECOME COMMON PLACE. ALWAYS REMEMBER THAT A CARELESS FRACTION OF A SECOND IS SUFFICIENT TO INFLICT SEVERE INJURY.**

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 goggles complying with ANSI Z87.1 (shown on package) before commencing power tool operation. Safety goggles are available at Sears retail or catalog stores.

**THINK SAFETY: Safety is a combination of operator common sense and alertness at all times when the planer is being used.**



# MOTOR SPECIFICATIONS & ELECTRICAL REQUIREMENTS

## MOTOR

The 12 1/2" thickness planer is supplied with a motor and with the wiring installed.

The 120 Volt AC universal motor has the following specifications:

Max. Developed Horsepower .....	2
Voltage .....	120
Amperes .....	14
Hertz .....	60
Phase .....	Single
RPM .....	8000

## POWER SOURCE

1. The motor is designed for operation on the voltage and frequency specified above.
2. Normal loads will be handled safely on voltages not more than 10% above or below the specified voltage.
3. Running the unit on voltages which are not within the range may cause overheating and motor burn-out.
4. Heavy loads require the voltage at motor terminals be not less than the voltage specified.

## GROUNDING INSTRUCTIONS

This tool is equipped with a three-conductor cord and ground type plug which has a grounding prong, approved by Underwriters Laboratories and the Canadian Standards Association.

Do not remove or alter the grounding prong in any manner.

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electrical current to reduce the risk of electrical shock.

The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided. If it will not fit in the outlet, have the proper outlet installed by a qualified electrician.

**Improper connection of the equipment-grounding conductor can result in a risk of electrical shock.**

The conductor with insulation having a green outer surface is the equipment-grounding conductor.

If repair or replacement of the electrical cord or plug is necessary, make sure the equipment-grounding conductor is not connected to a line terminal.

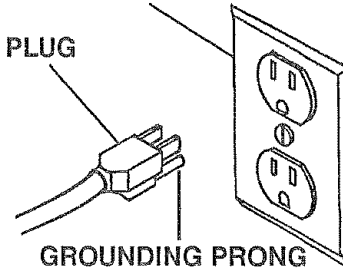
**Check with a qualified electrician or service personnel if the grounding instructions are not understood, or if in doubt as to whether the tool is properly grounded.**

The tool has a three-prong plug, such as the one illustrated.

This tool is intended for use on a circuit having a nominal rating less than 150 volts which has an outlet that looks like the outlet illustrated.

## PROPERLY GROUNDING OUTLET

### 3-PRONG PLUG



A temporary adapter, which looks like the adapter illustrated below, may be used to connect this plug to a two-pole receptacle if a properly grounded outlet is not available.

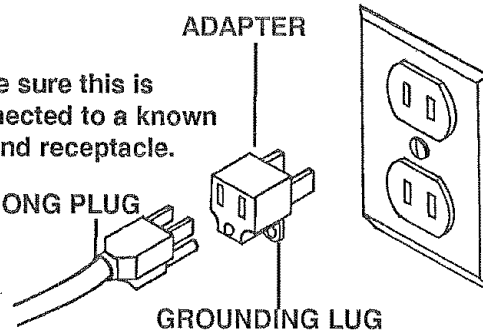
The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician.

The green colored grounding lug extending from the adapter must be connected to a permanent ground, such as a properly grounded outlet box.

## ADAPTER

Make sure this is connected to a known ground receptacle.

### 3-PRONG PLUG



**NOTE:** The adapter illustrated is for use only if you already have a properly grounded two-prong receptacle. Adapter is not allowed in Canada by the Canadian Electrical Code.

## EXTENSION CORDS

1. The use of any extension cord will cause some drop in the voltage and loss of power.
2. The wires of the extension cord must be sufficient in size to carry the current and maintain adequate voltage.
3. Use the table below to determine the minimum wire size (A.W.G.) extension cord.
4. Use only three-wire extension cords which have three-prong grounding type plugs and three-pole receptacles which accept the tool plug.
5. If power cord is worn, cut or damaged in any way, have it replaced immediately.

## ELECTRICAL CONNECTIONS

Extension Cord Length	Wire Size A.W.G.
Up to 50 ft. ....	14
50 - 100 ft. ....	10

**NOTE:** Using extension cords over 100 ft. long is not recommended.

# ELECTRICAL CONNECTIONS

**WARNING: MAKE SURE THE UNIT IS "OFF" AND DISCONNECTED FROM THE POWER SOURCE BEFORE INSPECTING ANY WIRING.**

The motor and wiring are installed as shown in the wiring diagram (See Figure 1).

The motor is assembled with an approved three-conductor cord to be used on 120 volts as indicated.

The power supply to the motor is controlled by a double-pole rocker switch.

Remove the key to prevent unauthorized use.

The power lines are attached to the switch with quick connect terminals.

The green ground line must remain securely fastened to the frame to properly protect against electric shock.

A manual reset overload protector is installed in line with the power supply to the motor. If the planer is overloaded the protector will break the circuit.

If the circuit breaker is tripped, turn the planer "off" and reset the circuit by pressing the button.

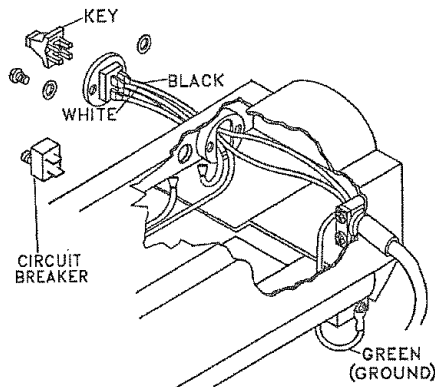


Figure 1

**CAUTION: BE SURE TO TURN THE PLANER "OFF" PRIOR TO RESETTING THE CIRCUIT BREAKER TO AVOID UNINTENTIONAL START-UP OF THE PLANER.**

# UNPACKING AND CHECKING CONTENTS

Check for shipping damages. If damage has occurred, a claim should be filed with the carrier for fastest action. The planer comes assembled as one unit.

1. Additional parts which need to be fastened to the unit should be located and accounted for (See Figure 2).
2. The handwheel attaches to either end of the crank shaft.
3. The knife gauge is provided for removal and adjustment of the knives.
4. Adjusting tools are also located in the parts bag.

**CAUTION: DO NOT ATTEMPT ASSEMBLY IF PARTS ARE MISSING. USE OWNER'S MANUAL TO ORDER REPLACEMENT PARTS.**

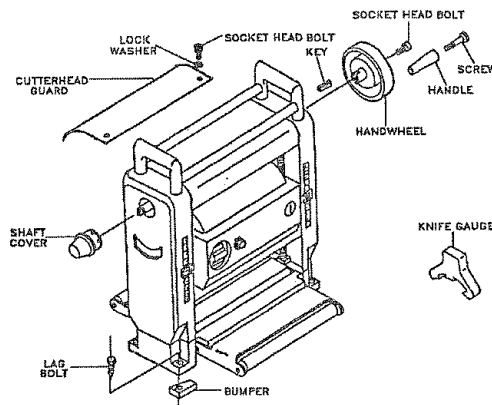


Figure 2

# ASSEMBLY

## CLEAN THE PLANER

Assembly and adjustment procedures are easier to perform on a clean unit. Unpainted steel surfaces have been coated with a shipping preservative. Remove the preservative with kerosene or penetrating oil. Use soap and water on rubber and plastic parts. Cleaning fluids tend to deteriorate them. Non-flammable solvents are recommended.

## INSTALL HANDWHEEL

Refer to Figure 4.

1. The handwheel attaches to the shaft (Key No. 17) for cutterhead adjustment.
2. Place key (Key No. 44) into slot on shaft.
3. Slide handwheel (Key No. 21) onto shaft. Fasten the handwheel to the shaft with bolt (Key No. 24).

## INSTALL KNIFE GUARD

Refer to Figure 5.

1. The knife guard (Key No. 20) attaches to the roller case. The knife guard directs the flow of chips removed from the workpiece and protects against unintentional contact with the cutterhead.

**WARNING: KNIFE GUARD MUST BE FASTENED SECURELY PRIOR TO ANY TIME THAT THE PLANER IS PLUGGED IN TO PROPERLY GUARD AGAINST ACCIDENTAL CONTACT WITH THE CUTTERHEAD.**

2. Fasten the knife guard using the two socket head bolts and lock washers (Key Nos. 29 & 34).

## MOUNT PLANER TO WORK SURFACE

Refer to Figure 5.

1. The planer is designed to be portable so it can be moved to the job site, but it should be mounted to a stable, level bench or table.
2. The base of the planer has mounting holes in it. These holes form a rectangle 17 3/4" x 7 1/2". Use a square to mark the position on the work surface. Mount the planer to the work surface by bolting it through the holes.
4. Drill pilot holes in surface for mounting with lag bolts (Key No. 41).
5. Insert bumpers (Key No. 42) into bottom of the base. Fasten planer with lag bolts (Key No. 41) through mounting holes.

# OPERATION

## SAFETY PRECAUTIONS

**WARNING:** Always observe the following safety precautions.

Whenever adjusting or replacing any parts on the planer turn the switch off and remove the plug from the power source.

Check that all fasteners are securely tightened.

Make sure guards are properly attached. Guards should be fastened securely and working properly.

Make sure that the knives are aligned and properly attached to the cutterhead.

Be certain that all moving parts are clear of interference. Check that knives rotate freely without obstruction.

Do not plug the planer in unless the switch is in the "off" position. After turning the switch on, allow the planer to come to full speed before operating.

Keep hands clear of all moving parts.

Do not force the work into the knives. Allow the automatic feed to work properly.

Replace or sharpen knives when they become damaged or dull.

Always wear eye protection.

## DEPTH OF CUT

Thickness planing refers to the sizing of lumber to a desired thickness while creating a level surface parallel to the opposite side of the board.

The quality of thickness planing depends on the operator's judgement about the depth of the cut.

The depth of the cut depends on the width, hardness, dampness, grain direction and grain structure of the wood.

The maximum thickness of wood which can be removed in one pass is 3/32".

For optimum planer performance the depth of the cut should be less than 1/16".

The board should be planed with shallow cuts until the work has a level side.

Once an even surface has been created, flip the lumber and create parallel sides.

Plane alternate sides until the desired thickness is obtained.

When half of the total depth of the cut is taken from each side, the board will have a uniform moisture content and additional drying will not warp it.

The depth of cut should be shallower when the work is wider.

When planing hard wood, take light cuts or plane the wood in thin widths.

Make a test cut when working with a new type of board or different kind of operation.

Check the accuracy of the test cut prior to working on finished product.

## ADJUSTING THE DEPTH OF CUT

Refer to Figure 5.

The height of the cutter blades is shown by indicators (Ref. No.24) located on either side of the planer in-feed roller support. The indicators ride on scales (Ref. No. 25) to show the thickness of the planed board.

The thickness is adjusted by rotating the handwheel (Key No. 21) towards the front of the machine to raise the knife height.

To reduce the knife height, rotate the handwheel towards the back.

Do not set the knife below 13/32". Do not plane a board which is less than 1/2" thick.

The knife height will be moved 1/16" with every complete revolution of the handwheel.

The action between the crank shaft (Key No.17) and the elevation screws (Key Nos.8,9) is coupled with beveled gears.

If play develops in the action of the handwheels, the gears have become misaligned.

One or both of the gears (Key No.12) on the elevation screws must be repositioned to eliminate the play.

Lower the knife height to access the bevel gears.

Loosen the set screw (Key No.13) and firmly hold the gears together.

Tighten the set screw to lock the position.

When the depth of cut adjustment is operating correctly, make sure that the indicator is positioned correctly.

Make a test cut on a piece of wood and measure the thickness produced.

Loosen the screw (Key No.22) (Refer to Figure 5) and set the indicator to show the thickness produced.

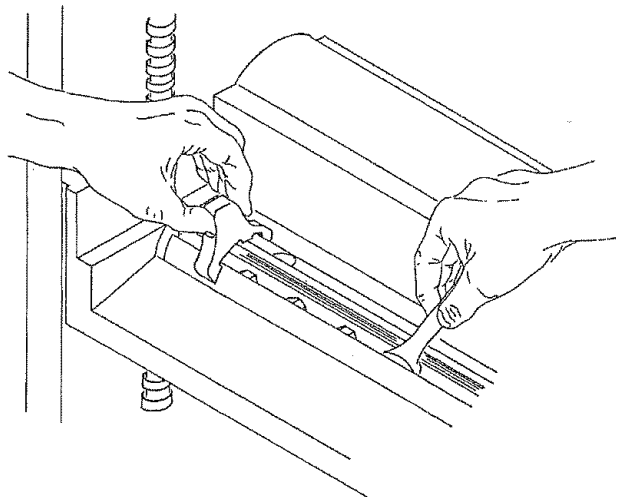
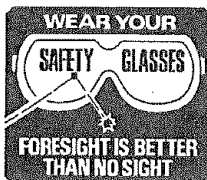


Figure 3



# OPERATION (Continued)

## ADJUSTING THE KNIFE HEIGHT

Refer to Figure 5.

To produce an even surface on a workpiece, the knife edges must be the same distance from the axis of the cutterhead.

A knife gauge (Key No.31) has been provided to make knife adjustment more convenient.

Remove the cutterhead guard (Key No.20) by removing the fastening bolts (Key No.29).

Rotate the cutterhead to access one knife. Use caution —the blades are sharp.

Position the knife gauge on one side of the cutterhead. Hold the gauge against the cutterhead so the contact point is over the knife (See Figure 3).

While holding the gauge, use a hex wrench to loosen the locking bolts.

Adjust the knife by turning the adjustment screw. Turn counterclockwise to raise the blade.

Adjust the blade so it touches the contact point while the gauge is firmly held against the cutter head.

Adjust the other side of the blade in the same manner and tighten the locking bolts securely.

Adjust the other knife in the same manner.

Replace the cutterhead guard and fasten it securely.

## ADJUST THE BASE ROLLERS

Refer to Figure 4.

The base of the planer has two rollers in it to improve feed action.

The cutterhead of the planer is parallel to the bed of the planer.

The workbase rollers (Key No.2) are positioned beneath the feed rollers to compensate for the pressure created by the automatic feed.

The height was set during manufacturing, but should be checked occasionally.

The rollers should be adjusted about 0.003" above the table surface.

Use a straightedge across the two rollers and use a feeler gauge to check the height.

Examine the adjustment of the rollers in several spots to determine that both rollers are at the correct level in all spots.

If the rollers require adjustment, loosen the set screws (Key No.4) and turn the eccentric adjuster (Key No.3) to position the roller.

Re-check the rollers until the proper position is located. Secure the position by tightening the set screw.

## ADJUSTING THE SUPPORT ROLLERS

The support rollers should be adjusted to help keep the portion of the work which is outside the planer in line.

Use a straightedge to align the roller plate so the roller height is even with the planer bed.

Loosen the nuts (Key No.31) and adjust the height with the hex bolts (Key No.38).

Make sure that both of the hex bolts hold the position of the roller plate. Hold the hex bolt with an open end wrench and secure the adjustment by tightening the nut.

Check the alignment of the support roller at each end with a straightedge. Use the eccentric bushings (Key No.36) to adjust the position of the roller.

Lock the position by tightening the socket head bolts (Key No.7).

## AVOID DAMAGE TO BLADES

The thickness planer is a precision woodworking machine and should be used on quality lumber only.

Do not plane dirty boards. Dirt and small stones are abrasive and will wear the blade.

Remove nails and staples to avoid damaging the blades. The planer should only cut wood.

Avoid knots. Heavy cross-grain makes knots hard. Also, knots can come loose and jam the blade.

**CAUTION:** Any particle that may encounter the planer knives may be projected from the planer, creating the risk of a hazard.

## PREPARING THE WORK

The thickness planer works best when the lumber has at least one flat surface.

Use a surface planer or jointer to define a flat surface.

Twisted or severely warped boards can jam the planer. Rip lumber in half to reduce the magnitude of the warp.

The work should be fed with the grain. Sometimes the grain will switch directions in the middle of the cut.

If possible, cut the board in the middle before planing so the grain direction is correct.

**CAUTION:** DO NOT PLANE A BOARD WHICH IS LESS THAN 12" LONG. THE FORCE OF THE CUT COULD SPLIT THE BOARD AND CAUSE A KICKBACK.

## FEEDING THE WORK

The feed rate refers to the rate at which the lumber travels through the planer.

The planer feed is automatic. It will vary slightly, depending on the type of wood cut.

The operator is responsible for aligning the work so it will feed properly.

Stand on the side of the planer to which the height adjustment handwheel was attached.

Lift the work to the in-feed support roller by grasping the edges of the board at approximately the middle of the length.

Boards longer than 24" should have additional support from freestanding material stands.

Rest the board end on the in-feed support roller and direct the board into the planer.

Push slightly on the board and allow the automatic feed to take the board. Release the board and allow the automatic feed to function properly. Do not push or pull on the workpiece.

**CAUTION:** DO NOT STAND DIRECTLY IN LINE WITH THE FRONT OR REAR OF THE PLANER. WHEN AN OBJECT IS PROJECTED FROM THE PLANER IT WILL TRAVEL IN THIS DIRECTION.



## OPERATION (Continued)

### FEEDING THE WORK (CONTINUED)

Move to the rear and receive the planed lumber by grasping it in the same manner as it was fed.

Do not grasp any portion of the board which has not gone past the out-feed support roller.

Repeat this operation on all the boards which need to be the same thickness or adjust the height.

The planer has return rollers on top so an assistant can pass work back to the operator.

**NOTE:** An assistant must follow the same precautions as the operator.

The surface that the planer will produce will be smoother if a shallower depth of cut is used.

A snipe is a depression at either end of the board, caused by an uneven force on the cutter head when work is entering or leaving the planer.

A snipe will occur when boards are not supported properly (see Adjusting the Support Rollers).

A slight snipe may still be noticed when the board is supported.

An uneven force is created when only one feed roller is in contact with the work at the beginning or end of the cut.

The snipe is more apparent when deeper cuts are being taken.

When planing more than one board of the same thickness, butt the boards together to avoid the snipe.

Feed the work in the direction of the grain. Wood fed against the grain will have chipped, splintered edges.

### CHECKING FOR WORN KNIVES

The condition of knives will affect the precision of the cut. Observe the quality of the cut which the planer produces to check the condition of the knives.

Dull knives will tear, rather than sever wood fibers, and produce a fuzzy appearance.

A raised grain will occur when dull knives pound on wood that has a varying density.

A raised edge will be produced where the knives have been nicked.

## MAINTENANCE

Planer will operate best if it is kept in good condition. Keep the unit adjusted as described in OPERATION. Also, the knives must be kept clean and sharp to ensure the quality of cut and efficiency of operation.

**WARNING: MAKE CERTAIN THAT THE UNIT IS DISCONNECTED FROM THE POWER SOURCE BEFORE ATTEMPTING TO SERVICE, OR REMOVE ANY COMPONENT.**

### CLEANING THE KNIVES

Gum and pitch will collect on knives and cause excess friction when working. Knives will overheat and wear at an accelerated rate. Use a gum and pitch remover to keep blades clean.

### WHETTING THE KNIVES

Knives can be kept sharp by whetting them with a sharpening stone.

Remove the cutterhead guard. Partially cover the stone with paper to protect the roller case.

Position cutterhead so stone will contact knife along its beveled surface.

Stroke the stone across knife from one side to the other while stone is also moved slightly in the direction of the feed.

Make sure to do the same number of strokes on both knives.

Replace the cutterhead guard.

### REMOVING KNIVES

Knives that are noticeably nicked or worn must be resurfaced to a new beveled edge.

Remove knives one at a time. Hold knife with knife gauge (see Figure 3).

Loosen the knife locking bolts and remove knives.

**NOTE:** Many shops do not have the capability to resurface knives. The Yellow Pages should list "Sharpening Services" or "Tool Grinding".

### REPLACEMENT KNIVES

Often replacing knives is less expensive than resurfacing them. Keeping a spare set of knives on hand is recommended. Knives should always be sharpened or replaced as a matched set.

To replace the sharpened knives reverse the steps used in removing the knives. Adjust knives as described in ADJUSTING THE KNIFE HEIGHT, page 7.

### LUBRICATION

Motor and cutterhead bearings are sealed and need no lubrication. Height adjustment guides and elevation screws should be cleaned of debris and greased when needed.

Occasionally apply a few drops of light machine oil to the gibs to keep the roller casing sliding freely in relation to the base.



# TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	REMEDY
<b>Snipe (Gouging at ends of Board)</b>	<ol style="list-style-type: none"> <li>1. Dull knives</li> <li>2. Inadequate support of long boards</li> <li>3. Uneven feed roll pressure</li> <li>4. Cutter casting not aligned</li> <li>5. Lumber not butted properly</li> <li>6. Support rollers misaligned</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace or sharpen knives per instructions (See "Maintenance", Page 8)</li> <li>2. Support long boards</li> <li>3. Check feed roll operation</li> <li>4. Check position on elevation screws</li> <li>5. Butt end to end each piece of stock as boards pass through planer</li> <li>6. Adjust support rollers</li> </ol>
<b>Fuzzy Grain</b>	<ol style="list-style-type: none"> <li>1. Planing wood with a high moisture content</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove high moisture content from wood by drying</li> </ol>
<b>Torn Grain</b>	<ol style="list-style-type: none"> <li>1. Too heavy a cut</li> <li>2. Knives cutting against grain</li> <li>3. Dull knives</li> </ol>	<ol style="list-style-type: none"> <li>1. Review "Depth of Cut", Page 6</li> <li>2. Review "Feeding the Work", Page 7</li> <li>3. Replace or sharpen knives per instructions (See "Maintenance", Page 8)</li> </ol>
<b>Rough Raised Grain</b>	<ol style="list-style-type: none"> <li>1. Dull Knives</li> <li>2. Too heavy a cut</li> <li>3. Moisture content too high</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace or sharpen knives per instructions (See "Maintenance", Page 8)</li> <li>2. Review "Depth of Cut", Page 6</li> <li>3. Dry the wood or use dried wood</li> </ol>
<b>Uneven Depth Cut Side to side</b>	<ol style="list-style-type: none"> <li>1. Knife projection not uniform</li> <li>2. Cutterhead not leveled to planer bed</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust knife projection (See "Adjust the Knife Height", Page 7)</li> <li>2. Rollerhead case not level; adjust elevation screws</li> </ol>
<b>Cutterhead Elevation Adjusts with Difficulty</b>	<ol style="list-style-type: none"> <li>1. Beveled gears dirty</li> <li>2. Elevation screws dirty</li> <li>3. Gears or screws worn</li> <li>4. Friction between casing &amp; covers</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean and lubricate beveled gears</li> <li>2. Clean and lubricate elevation screws</li> <li>3. Replace</li> <li>4. Clean, lubricate</li> </ol>
<b>Board Thickness Does Not Match Depth Of Cut Scale</b>	<ol style="list-style-type: none"> <li>1. Indicator not set correctly</li> <li>2. Knife projection incorrect</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust indicator/securely tighten</li> <li>2. Set knife projection correctly (See "Maintenance", Page 8)</li> </ol>
<b>Chain Jumping</b>	<ol style="list-style-type: none"> <li>1. Sprockets worn</li> <li>2. Chain worn</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace sprockets</li> <li>2. Replace chain</li> </ol>
<b>ON/OFF Will Not Turn On</b>	<ol style="list-style-type: none"> <li>1. Switch malfunction</li> <li>2. Circuit breaker tripped</li> </ol>	<ol style="list-style-type: none"> <li>1. Have a qualified electrician replace the ON/OFF switch</li> <li>2. Reset circuit breaker. (Be sure planer is disconnected from power source.)</li> </ol>

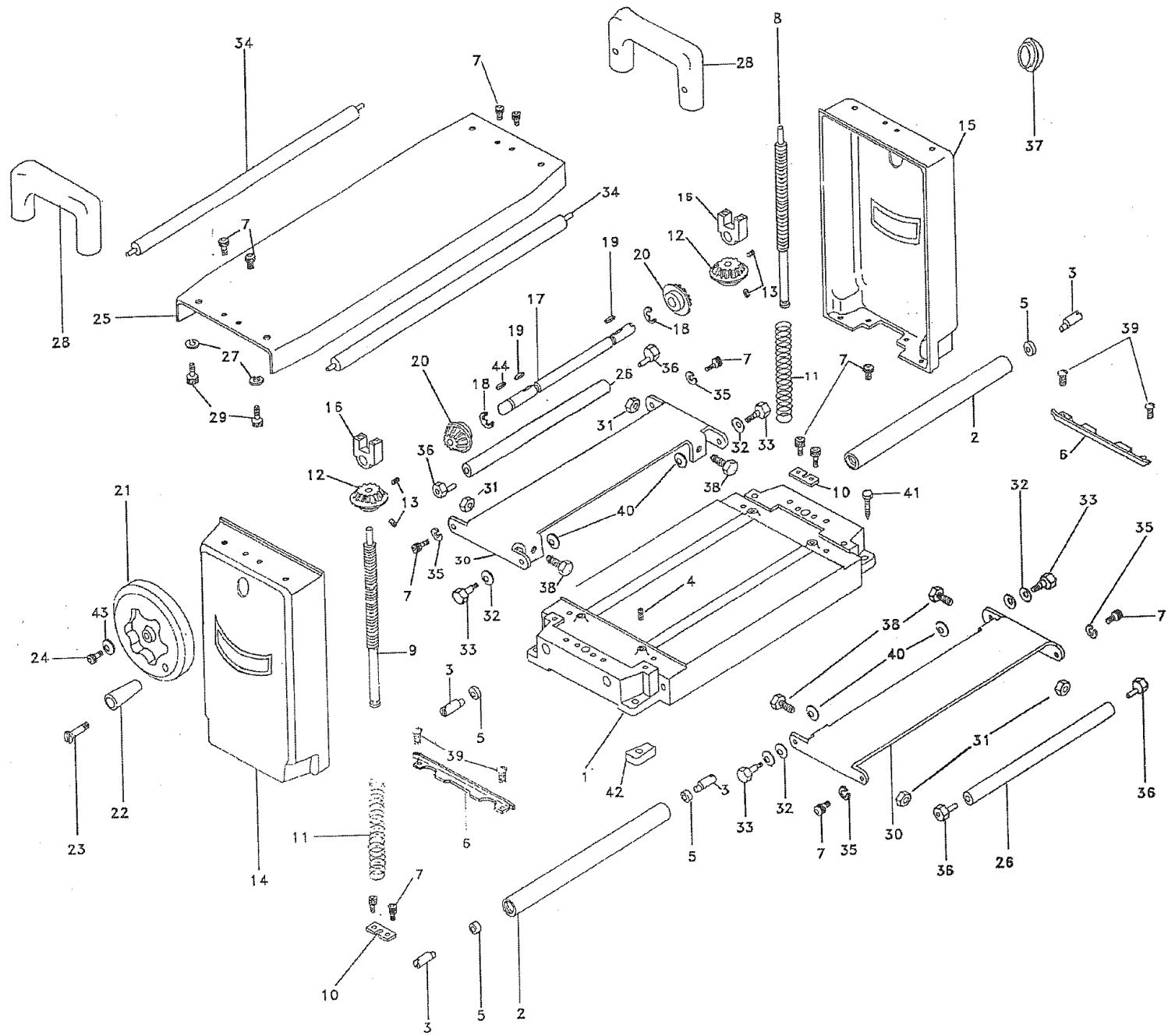


Figure 4 - Replacement Parts Illustration for Base

## REPLACEMENT PARTS LIST FOR BASE

KEY No.	DESCRIPTION	PART No.	QTY.	KEY No.	DESCRIPTION	PART No.	QTY.
1	Base	3801.00	1	24	Bolt, socket head, 6mm-1.0 x 16	1760.00	1
2	Base roller	3802.00	2	25	Top cover	3822.00	1
3	Eccentric adjusters	3803.00	4	26	Support roller	3823.00	2
4	Set screw, 6mm - 1.0 x 8	1043.00	4	27	Washer, lock, 8mm	0824.00	4
5	* Bearing, 608	STD315485	4	28	Top handle	3824.00	2
6	Guide plate	3805.00	2	29	Bolt, socket head, 8mm-1.25 x 20	1064.00	4
7	Bolt, socket head, 6mm-1.0 x 10	3806.00	20	30	Roller plate	3825.00	2
8	Elevation screw, L.H. thread	3807.00	1	31	Hex nut, 6mm - 1.0	0875.00	4
9	Elevation screw, R.H. thread	3808.00	1	32	Washer, wavy, 8mm	3826.00	8
10	Set plate	3809.00	2	33	Pivot bolt	3827.00	4
11	Spring	3810.00	2	34	Top roller	3828.00	2
12	Beveled gear	3811.00	2	35	Washer, lock, 6mm	1514.00	4
13	Set screw, 6mm - 1.0 x 10	0183.00	4	36	Eccentric bushing	3830.00	4
14	Cover, left side	3813.00	1	37	Shaft cover	3852.00	1
15	Cover, right side	3814.00	1	38	Bolt, hex head, 6mm-1.0 x 25	0870.00	4
16	Bracket	3815.00	2	39	Screw, pan head, 6mm-1.0 x 10	3812.00	4
17	Shaft	4268.00	1	40	Spacer	3887.00	4
18	"E" Ring, 12mm	3817.00	2	41	Lag bolt	1649.00	4
19	Key, 4mm x 10mm	1531.00	2	42	Bumper, (Set of 4)	3890.00	1
20	Beveled gear	3818.00	2	43	Washer, flat, 6mm	0871.00	1
21	Handwheel	4271.00	1	44	Key, 4mm x 8mm	3873.00	1
22	Handle, handwheel	3820.00	1				
23	Handle screw	3821.00	1				

Always order by Part No.; Not by Key No.

\* Standard hardware item available locally.

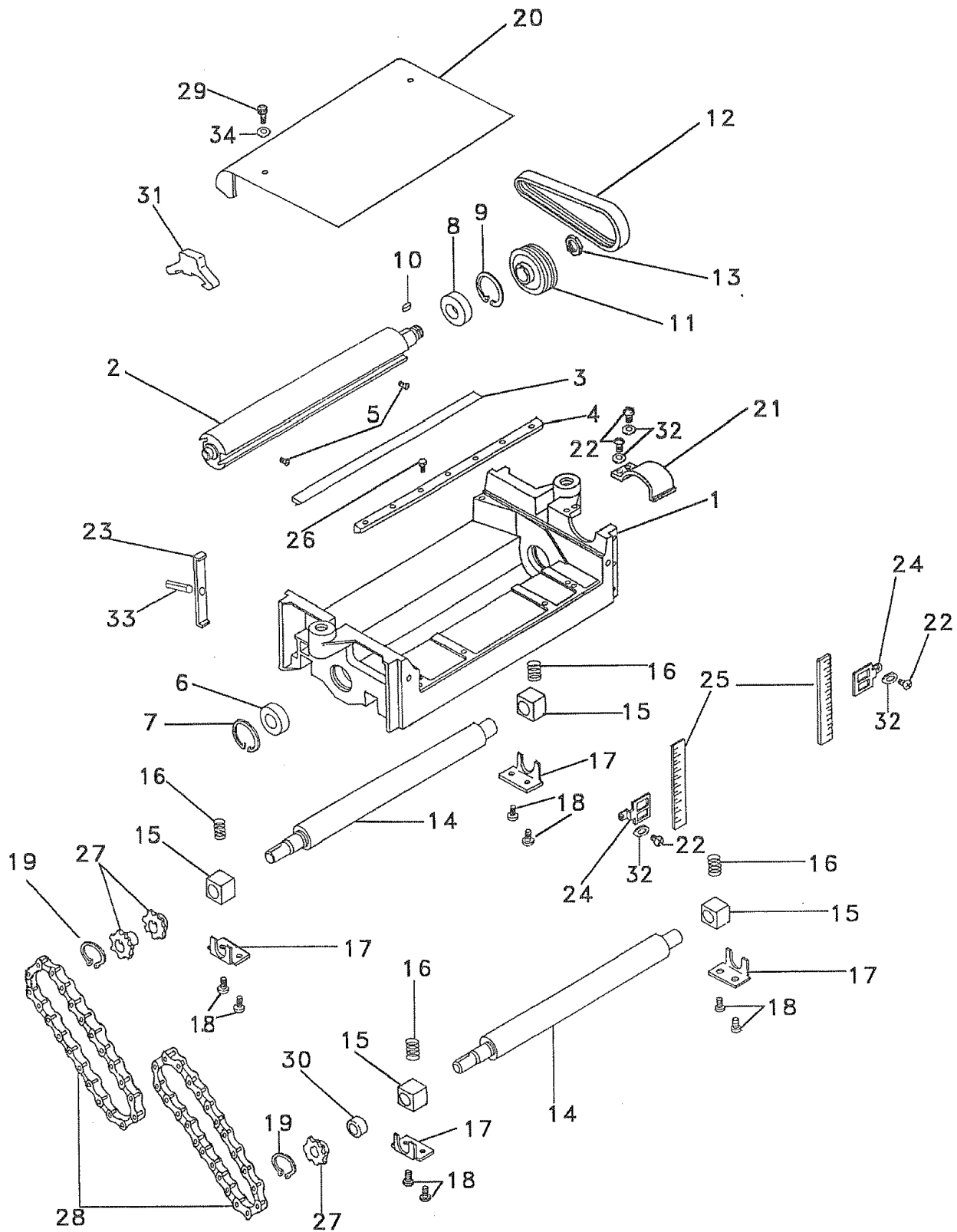


Figure 5 - Replacement Parts Illustration for Roller Case

# REPLACEMENT PARTS LIST FOR ROLLER CASE

Key No.	Description	Part No.	Qty.
1	Roller case	3831.00	1
2	Cutterhead	3832.00	1
3	Planer knives, (set)	3833.00	1
4	Cutter head gib, (set)	3834.00	1
5	Bolt, flat head, 5mm - .80 x 12	3835.00	4
6	* Bearing, 6202	STD315225	1
7	Retaining ring, Int. - 35mm	3836.00	1
8	* Bearing, 6203	STD315235	1
9	Retaining ring, Int. - 40mm	3838.00	1
10	Key, 5mm x 10mm	3839.00	1
11	Drive pulley	3840.00	1
12	Poly V-belt, 135J-6	3841.00	1
13	Nut, 16mm - 1.50	3829.00	1
14	Feed roller	3842.00	2
15	Retaining bracket	3843.00	4
16	Spring	3844.00	4
17	Bracket	3845.00	4
18	Screw, pan head, 5mm-.80 x 10	1784.00	8
19	* Retaining ring, Ext. - 15mm	STD582056	2
20	Knife guard	3847.00	1
21	Belt guard	3848.00	1
22	Screw, pan head, 4mm-.70 x 8	0781.00	4
23	Wear plate	3849.00	4
24	Indicator	3850.00	2
25	Scale	3851.00	2
26	Knife locking bolt	2706.00	14
27	Chain sprocket	3853.00	3
28	Chain, #410 - 26P	3854.00	2
29	Bolt, socket head, 5mm-.80 x 10	3855.00	2
30	Spacer	3856.00	1
31	Knife gauge	3879.00	1
32	Washer, flat, 4mm	3888.00	4
33	Roll pin, 4mm x 8mm	4282.00	4
34	Washer, lock, 5mm	1808.00	2

\* Standard hardware item available locally.

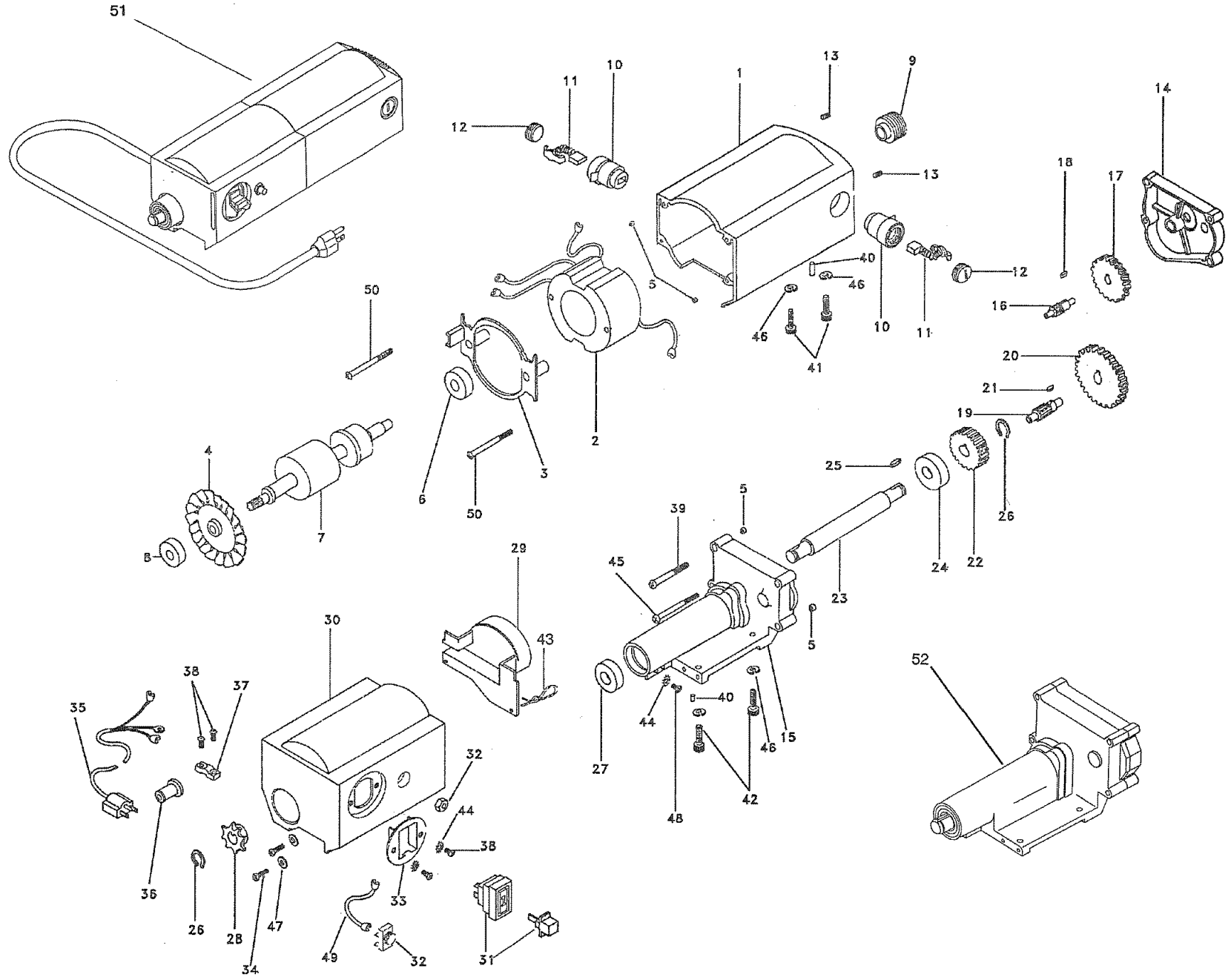


Figure 6 - Replacement Parts Illustration for Motor

# REPLACEMENT PARTS LIST FOR MOTOR

KEY NO.	DESCRIPTION	PART NO.	QTY.	KEY NO.	DESCRIPTION	PART NO.	QTY.
1	Motor housing	3857.00	1	28	Chain sprocket	3853.00	1
2	Stator	4283.00	1	29	Switch cover	3880.00	1
3	Fan casing	4284.00	1	30	Switch box	4286.00	1
4	Fan	3860.00	1	31	Switch with key	0423.00	1
5	Aligning bushing	3861.00	4	32	Circuit breaker	4287.00	1
6	* Bearing, 6201	STD315215	1	33	Switch bracket	3891.00	1
7	Armature	4285.00	1	34	4-.70 x 8mm Screw, pan head	0781.00	2
8	* Bearing, 6200	STD315205	1	35	Line cord	3882.00	1
9	Motor pulley	3865.00	1	36	Line cord holder	3883.00	1
10	Brush holder	3866.00	2	37	Line cord clamp	3884.00	1
11	Carbon brush, (set of 2)	3867.00	1	38	4-1.50 x 16mm Screw, pan head	3885.00	4
12	Brush cap	3868.00	2	39	5-1.60 x 50mm Screw, pan head	1544.00	3
13	5-.80 x 10mm Screw, set	1838.00	2	40	Aligning pin	3886.00	2
14	Gear box bracket	3869.00	1	41	6-1.60 x 20mm Bolt, socket head (TF)	3180.00	2
15	Gear box	3870.00	1	42	6-1.0 x 20mm Bolt, socket head	1515.00	2
16	Pinion shaft	3871.00	1	43	Hitch pin	3889.00	3
17	Gear	3872.00	1	44	5mm Washer, star	1474.00	3
18	4 x 8mm Key	3873.00	1	45	5-1.60 x 60mm Screw, pan head	1643.00	1
19	Pinion shaft	3874.00	1	46	6mm Washer, lock	1514.00	4
20	Gear	3875.00	1	47	4mm Washer, flat	3888.00	2
21	3 x 8mm Key	3846.00	1	48	5-.80 x 10mm Screw, pan head	1504.00	1
22	Gear	3876.00	1	49	Terminal connector	1251.00	1
23	Gear shaft	3877.00	1	50	5-1.60 x 70mm Screw, pan head	4288.00	2
24	* Bearing, 6202	STD315225	1	51	† Motor assembly	6548.00	1
25	4 x 10mm Key	1531.00	1	52	Gear box assembly	6549.00	1
26	* 15mm Retaining ring, external	STD582056	2	●	Owner's Manual	4290.01	1
27	* Bearing, 6002	STD315525	1				

\* Standard hardware item, available locally.

● Not shown.

† Assembly includes Key Nos. 1 through 50 (except for Key No. 28).





**OWNER'S  
MANUAL**

**SERVICE**

**MODEL NO.  
351.233731**

**HOW TO ORDER  
REPAIR PARTS**

## 12 1/2" Thickness Planer

Thank you for purchasing your 12 1/2" Thickness Planer from Sears. This unit will provide you with many years of reliable service. Should the need exist for repair parts or service, simply contact any Sears Service Center and most Sears, Roebuck and Co. stores. Be sure to provide all pertinent facts when you call or visit. The model number of your Thickness Planer is on the side of the planer.

All parts listed may be ordered from any Sears Service Center and most Sears stores. If the parts you need are not stocked locally, your order will be electronically transmitted to a Sears Repair Parts Distribution Center for handling.

When ordering replacement parts, always give the following information:

NAME OF ITEM: 12 1/2" Thickness Planer

MODEL NUMBER: 351.233731

PART NUMBER:

PART DESCRIPTION: