

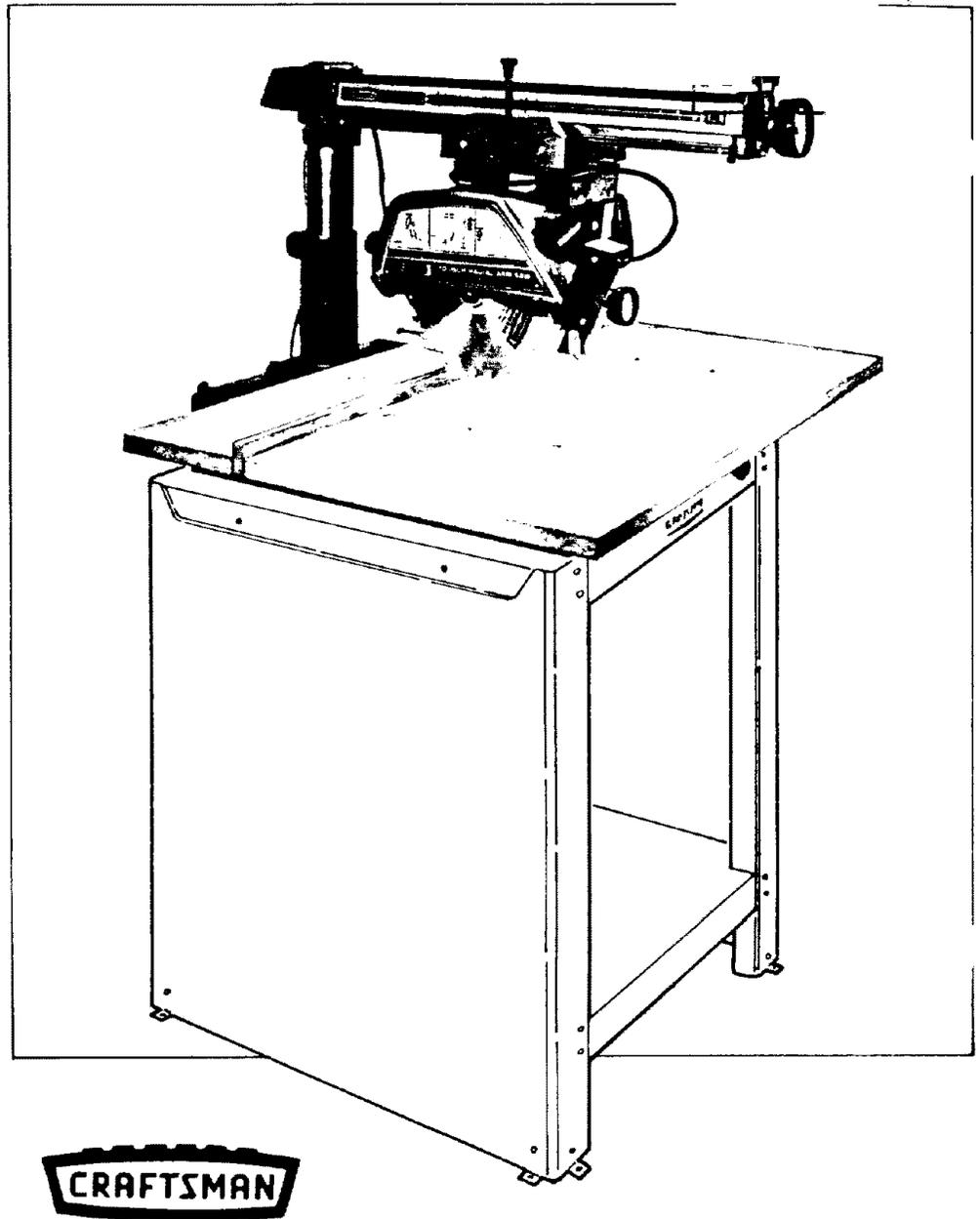
Sears

*owners
manual*

CAUTION:

Read SAFETY
RULES and
INSTRUCTIONS
carefully

**MODEL NO.
113. 29461**



CRAFTSMAN

***10-INCH
RADIAL SAW***

assembly • operating • repair part

SEARS, ROEBUCK AND CO., Chicago, Ill. 60607 U.S.A.
and SIMPSONS-SEARS LIMITED, Toronto

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.
- 9. 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 . . .

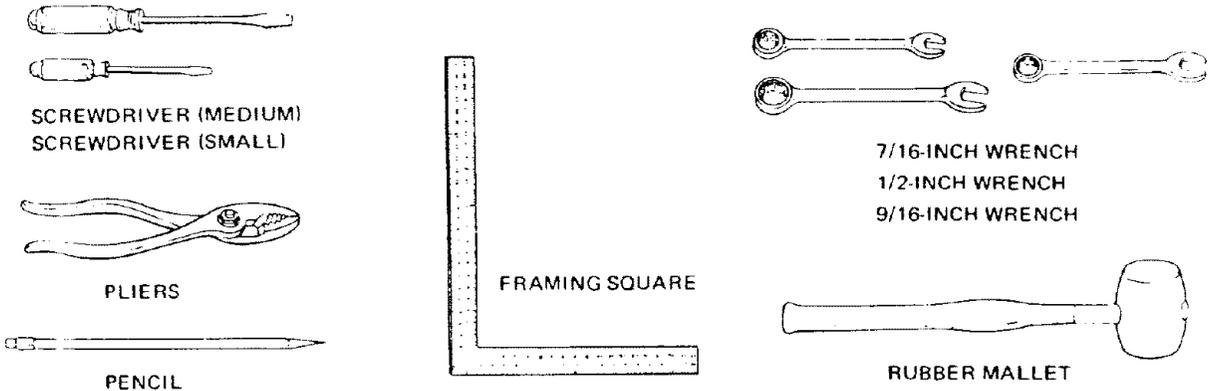
1. That the manufacturer's power tools, including the particular tool associated with the Seal, are produced in accordance with applicable Standards For Safety of Underwriters' Laboratories and American National Standards (ANSI).
2. That compliance with applicable safety standards is assured by independent 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

CONTENTS

| | Page | | Page |
|--|------|------------------------------|------|
| Unpacking and Preassembly Instructions | 3 | Trouble Shooting | 20 |
| Alignment Instructions | 5 | Motor Trouble Shooting Chart | 25 |
| Electrical Connections | 11 | Guarantee | 27 |
| Operating Controls | 13 | Repair Parts | 28 |
| Basic Saw Operations | 15 | | |

TOOLS NEEDED



UNPACKING AND PREASSEMBLY INSTRUCTIONS

1. Unpacking and Checking Contents

Separate all "loose" parts from packaging materials and check each item with figure 1 and "Table of Loose Parts" to make sure all items are accounted for, before discarding any packing material.

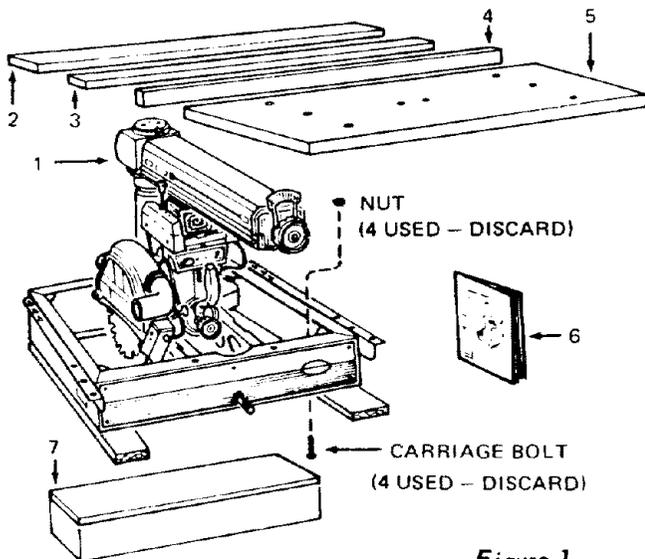


Figure 1

| Key No. (Fig. 1) | TABLE OF LOOSE PARTS | Qty. |
|---------------------|--|------|
| 1 | Basic Saw assembly | 1 |
| 2 | Rear table | 1 |
| 3 | Table spacer | 1 |
| 4 | Rip fence | 1 |
| 5 | Front table | 1 |
| 6 | "Owner's Manual" | 1 |
| 7 | Loose Parts Carton (containing the following items): | |
| | Hex-"L" Wrench, 1/8" | 1 |
| | Hex-"L" wrench, 3/16" | 1 |
| | Hex-"L" wrench, 1/4" | 1 |
| | Elevation crank assembly | 1 |
| | Knob assembly, pull | 1 |
| | Switch key | 2 |
| | Arbor wrench | 1 |
| | Table clamp | 2 |
| | Rip-scale indicator | 2 |
| | Twin nut (for attaching rip-scale indicator) | 2 |
| | Machine screw, pan-hd., 1/4-20x1" | 6 |
| | Washer, steel (flat), 17/64x5/8x1/32" | 7 |
| | Lockwasher, medium, 1/4" | 6 |
| | Nut, hex., 1/4-20x7/16x3/16" | 6 |
| | Machine screw, pan-hd., 6-32x7/16" | 4 |
| | Nut - "T" | 1 |
| | Setscrew, cup-pt. | 1 |
| | Machine screw, pan-hd., 1/4-20x1-1/4" | 1 |
| | Shaft wrench | 1 |

unpacking and preassembly

2. Mounting Your Saw on a Workbench

Mount on a Craftsman Power Tool Base or a sturdy, flat bench, in such a position that the elevation crank will be free to rotate.

WARNING: Do not connect the power cord to a source of power. This cord must remain unplugged whenever you are working on the saw.

3. Installing the Elevation Crank and Swivel Latch-Pin Knob (Figure 2)

- Install the elevation crank and tighten the setscrew on the flat portion of the shaft.

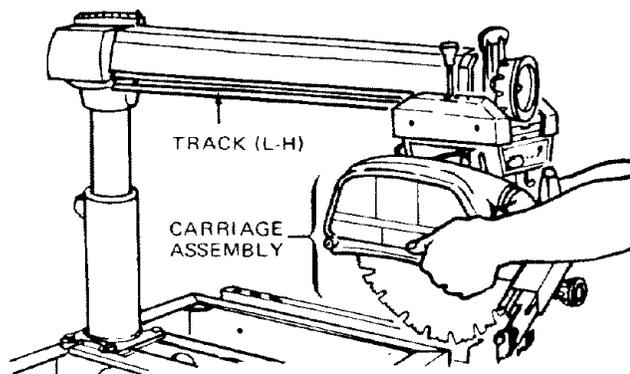
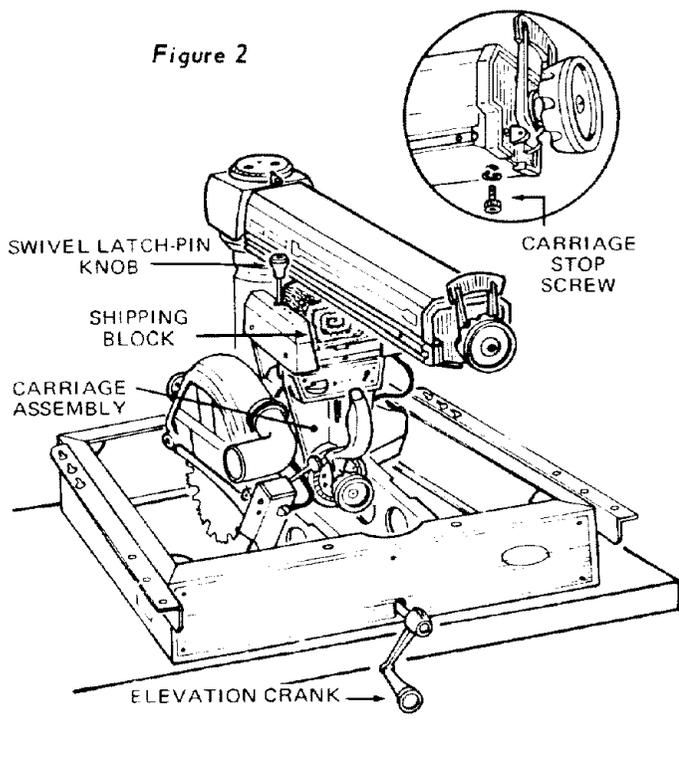


Figure 3

4. Installing the Motor and Carriage Assembly on the Radial Arm (Figures 2 and 3)

- Rotate the elevation crank clockwise several turns and remove the shipping block from between the carriage and the radial arm.
- Remove the carriage stop screw, lockwasher and warning tag.
- Holding the carriage assembly with both hands, carefully start and slide the carriage onto the radial-arm tracks. The assembly must be held parallel with the arm so that all four of the assembly bearings will smoothly slide onto the two arm tracks, thus preventing any excessive strain on the bearings and tracks.
- Reinstall the carriage stop screw and lockwasher.

WARNING: Unless this is done carriage can roll off the arm.

- Remove the two shipping screws from bottom of motor, and discard. Leaving these in would limit depth of cut.
- Check the cord in the arm cord clip to make sure there is 30 inches length of cord between this clip and the cord clip on the yoke.
- Install the swivel latch pin knob.

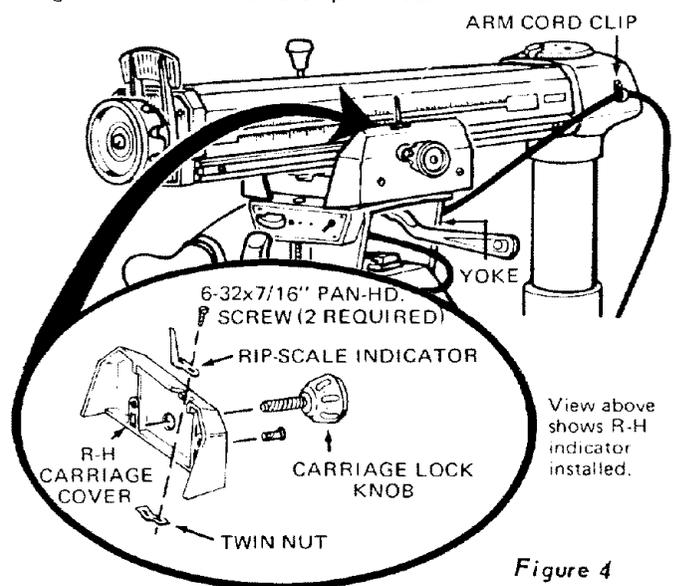


Figure 4

5. Installing the Rip Scale Indicators (Figure 4)

- Remove the carriage lock knob, then remove the right-hand carriage cover.
- Attach a rip-scale indicator to the top of the carriage cover, using one twin nut and two 6-32x7/16-inch pan-head screws. Tighten the screws lightly -- the indicator will be adjusted, later.
- Reinstall the carriage cover and knob.
- Similarly attach the remaining rip-scale indicator to left-hand carriage cover, then reinstall this cover. Note that there is no knob on the left side; only the cover need be removed and reinstalled.

assembly and adjustments

ALIGNMENT INSTRUCTIONS

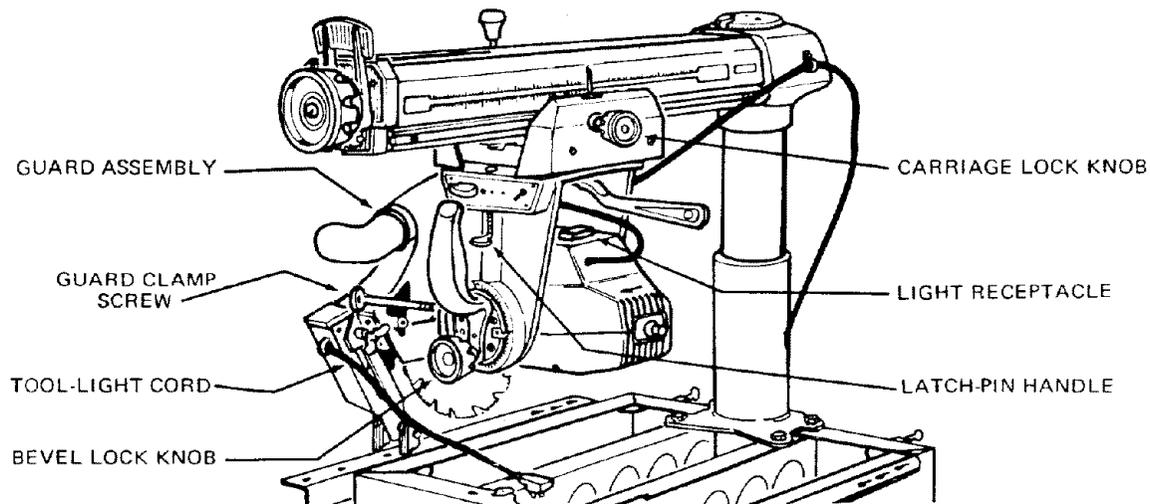


Figure 5

NOTE: The following instructions are presented in the most logical sequence in which they can be done to ensure accurate performance of your saw.

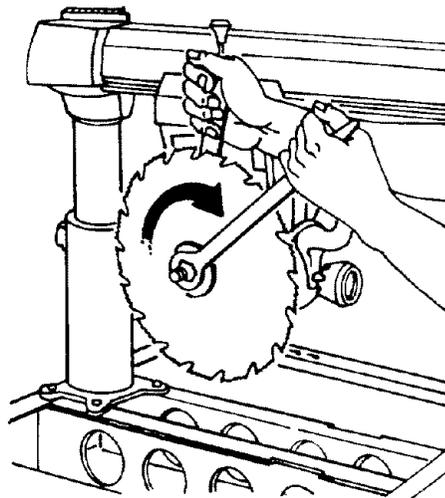


Figure 6

1. Removing the Guard and Saw Blade (Figures 4, 5 and 6)

- a. Tighten the carriage lock knob.
- b. Disconnect the tool-light cord.

- c. Loosen the guard-clamp screw and remove the guard assembly.
- d. Place the arbor wrench on the shaft nut and the shaft wrench on the hex portion of motor shaft just inside the saw blade.
Hold the shaft wrench and rotate the arbor wrench downward to loosen the shaft nut. The motor shaft has left-hand threads.
- e. Remove shaft nut, outer collar, saw blade, and inner collar.
- f. Place the saw blade, nut, collars, and guard assembly where they will be out of your way during the following adjustment steps.

2. Adjusting the Table Supports Parallel to the Radial Arm (Figures 7 through 10)

IMPORTANT: Precise adjustment of the table supports is necessary to assure consistently true sawing operations. If the table supports — and the table — are not precisely squared with the saw-blade travel in all operating positions, the blade may not produce clean, uniform cuts.

- a. Loosen the bevel lock knob and hold the latch-pin handle up.
- b. Swivel the motor counterclockwise until the saw end of the shaft is pointing straight down. Tighten the lock knob.

assembly and adjustments

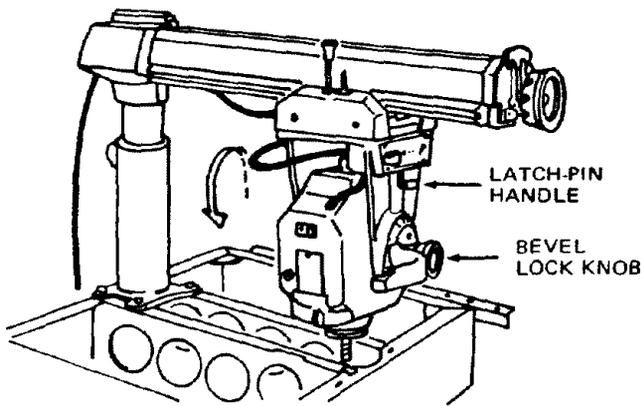


Figure 7

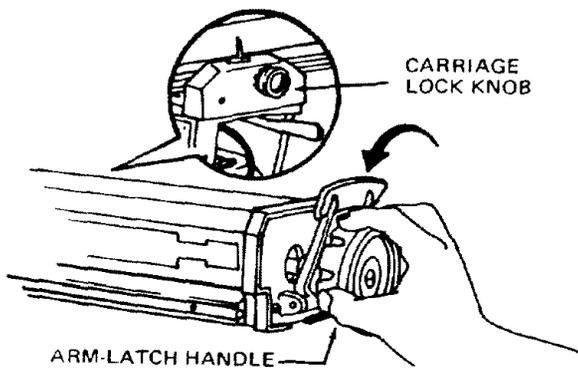


Figure 8

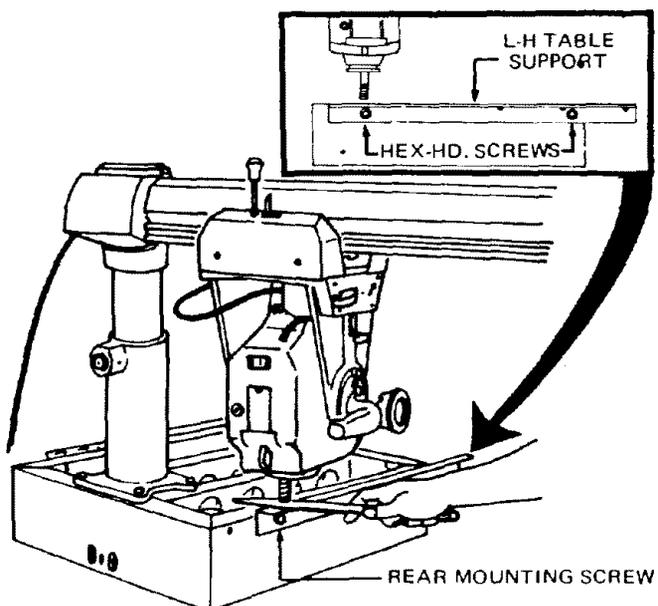


Figure 9

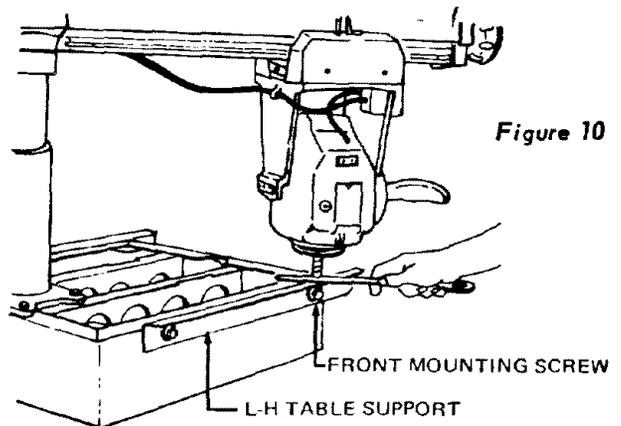


Figure 10

- c. Loosen both the arm latch handle and the carriage lock knob so that the radial arm is free to swing right or left as desired, and the carriage rolls freely on the arm.
 - d. Loosen the two 5/16-inch hex-head screws that secure the left-hand table support. Loosen them just enough for the support to move up or down when tapped with a rubber mallet. Tap the support to position it with its top surface approximately 1/16-inch above the top surface of the adjoining saw base.
 - e. Position the radial arm, and also position the carriage on the arm, to place the bottom end of the motor shaft directly above the rear, left-hand, table support attaching screw.
 - f. Lay the handle end of the arbor wrench on the mounting support and, while holding the wrench flat on the support, carefully rotate the elevation crank to lower the motor until the motor shaft end just touches the wrench surface. You should be able to slide the wrench back and forth with only slight resistance.
- IMPORTANT:** The radial-arm elevation setting must remain the same throughout the remainder of this table-supports adjusting procedure. *Do not change the setting until you have satisfactorily completed the adjustment of both table mounting supports.*
- g. Repeat the above with the motor-shaft end now directly above the front, *left-hand*, table-mounting support attaching screw.
 - h. Tap the front end of the table support, if necessary to move it up or down until the motor shaft end just touches the arbor wrench in the same manner as in step "f", preceding.
 - i. Repeat steps "e" through "h" to make certain that the arbor wrench fits between the motor-shaft end and the mounting channel in an identical manner at the rear and at the front.
 - j. Tighten the two 5/16-inch hex-head screws.

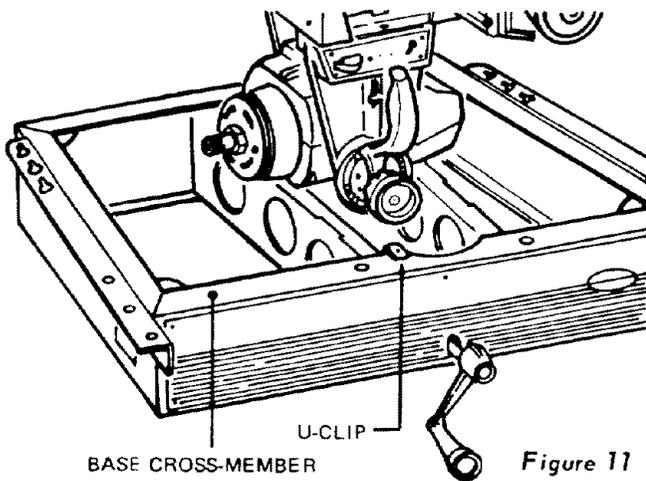
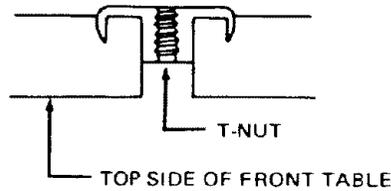


Figure 11

- k. Adjust the right-hand table support in exactly the same manner, *without* altering the radial-arm elevation setting.
- l. Loosen the bevel lock knob and, while holding the bevel latch-pin handle up, rotate the motor to a horizontal position – then release the latch-pin handle so that the pin bottoms in its detent, and tighten the lock knob.
- m. Move the radial arm to 0° (center) position and lock it by tightening the arm-latch handle.

3. Installing the Front Table (Figures 11 through 15)

- a. Place the front table (largest) board upside-down on a workbench or the floor. It is upside-down when the face in which the screw holes are counterbored is at bottom. Note that there are two holes near the center of the board, one smaller in diameter than the other. Drive the T-nut (furnished with loose parts) into the smaller of these two center holes.
- b. Turn the front table top-side up and place it on the table supports, locating it so that the six screw holes near the board sides are aligned with their corresponding holes in the two supports.
- c. In each of the six holes located above the table supports, place one 17/64-inch flat washer and one 1/4-20x1-inch pan-head machine screw. In the larger of the two center holes place one 17/64-inch flat washer and one 1/4-20x1-1/4-inch pan-head machine screw – and start the screw into the U-nut on the front of the saw base (but do not tighten it). In the smaller center hole (with the T-nut underneath), barely start the cup-point set-screw.
- d. Install one 1/4-inch lockwasher and one 1/4-20 hex nut on each of the six screws in the table supports, and tighten slightly. The board should be snug against the supports, but not held too tightly to be moved by tapping it firmly with a rubber mallet.



A CROSS-SECTIONAL VIEW THROUGH CENTER OF T-NUT

Figure 12

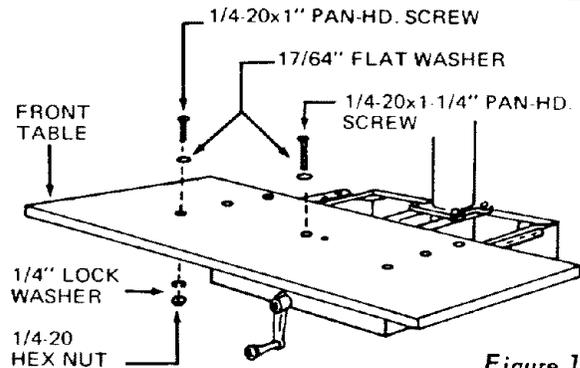


Figure 13

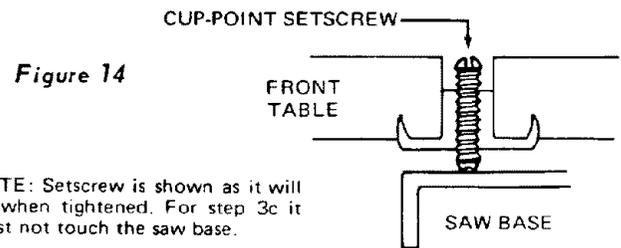


Figure 14

NOTE: Setscrew is shown as it will be when tightened. For step 3c it must not touch the saw base.

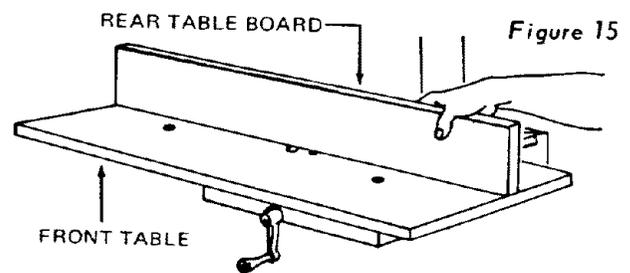


Figure 15

- e. Move the carriage to its extreme rear position, and tighten the carriage lock knob.
- f. Lay the rear table board on edge across the front table to serve as a straightedge. Sight under this straightedge to determine whether the front table board is high or low at its center.
- g. If the front table is high at center, *first* tighten the center (1/4-20x1-1/4-inch) hold-down screw until the table is level – *then* tighten the leveling screw until this screw is snug. If table is low at center, *first* tighten the leveling screw until the table is level – *then* tighten the hold-down screw.

assembly and adjustments

4. Squaring the Crosscut Travel (Figures 16 through 23)

- a. Loosen the carriage lock knob, move the carriage to the approximate center of the radial arm, then retighten the lock knob.
- b. Install the saw blade, as follows:
 - (1) Place on the motor shaft, in this order: 1) One of the two blade collars, flat face out; 2) The blade, with the teeth pointing in a clockwise direction when you are facing saw-blade end of motor; 3) The remaining blade collar, flat face against blade; and 4) The shaft nut.
 - (2) Tighten the shaft nut as shown in Figure 17.
- c. Loosen the arm-latch handle 1/4 turn (counterclockwise), and make sure the yoke clamp handle and the bevel lock knob are tight.

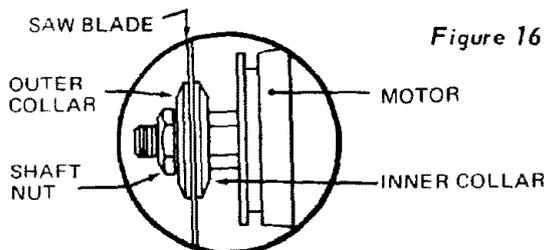


Figure 16

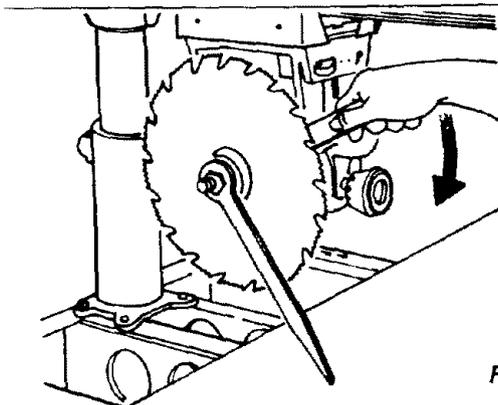


Figure 17

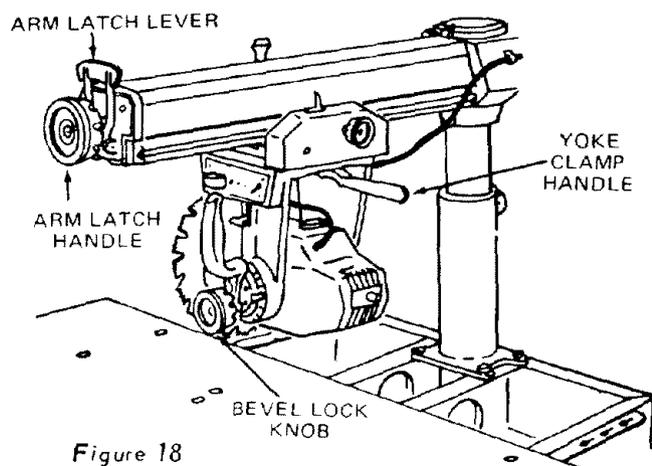


Figure 18

Figure 19

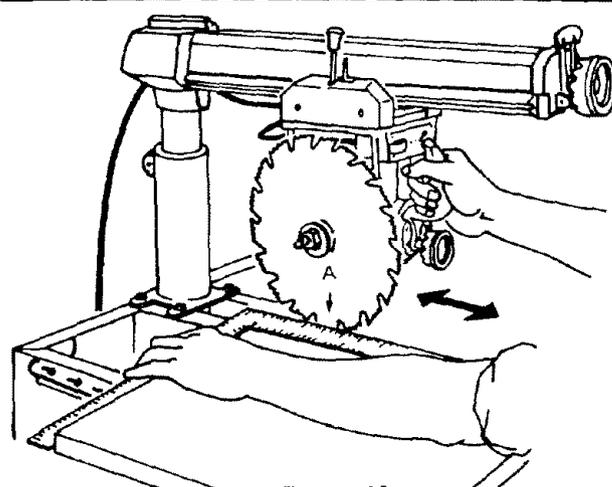
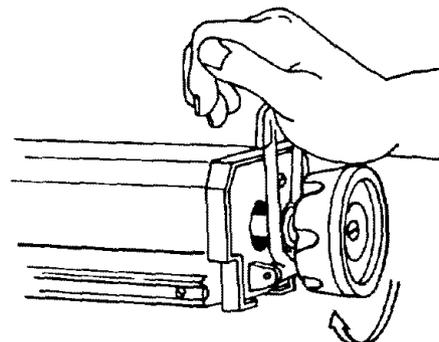


Figure 20

CAUTION: WHENEVER YOU MOVE THE RADIAL ARM BEYOND 45° LEFT OR RIGHT ALWAYS EITHER PULL THE ARM-LATCH LEVER OUT, OR COMPLETELY LOOSEN THE ARM-LATCH HANDLE BY ROTATING IT COUNTERCLOCKWISE AS FAR AS POSSIBLE. THE ARM LOCK PIN MUST BE RETRACTED WHENEVER THE ARM IS ROTATED PAST 45° LEFT OR RIGHT, OR THE PIN WILL BE DAMAGED. REFER TO "PRECISION INDEXING" IN THE "OPERATING CONTROLS" SECTION FOR THE CORRECT PROCEDURE TO FOLLOW WHEN ROTATING AND INDEXING THE RADIAL ARM.

- d. Hold the arm-latch lever out and move the radial arm approximately 10° to the right. Release the arm-latch lever and move the arm slowly to the left until it indexes at the 0° position. *Do not bump or jar the arm.* Tap the arm latch solidly with the palm of your hand to seat the arm lock pin firmly.
- e. Retighten the arm-latch handle, loosen the carriage lock knob, and position the carriage to the rear of the front table. By turning the elevation crank counterclockwise, lower the blade until it just clears the front table.
- f. Place a framing square on the front table with its short leg against the rear edge of the table and the long leg just contacting a tooth of the blade. Mark this tooth ("A" in the illustration) with a pencil.

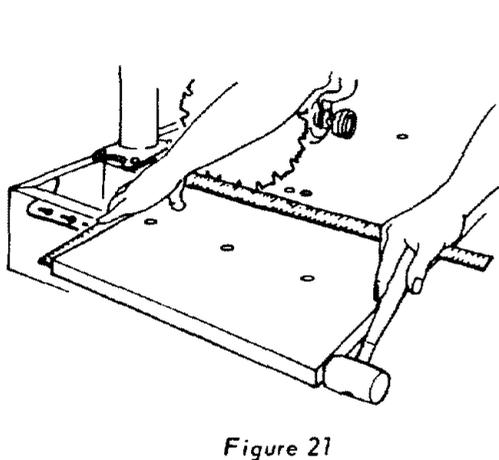


Figure 21

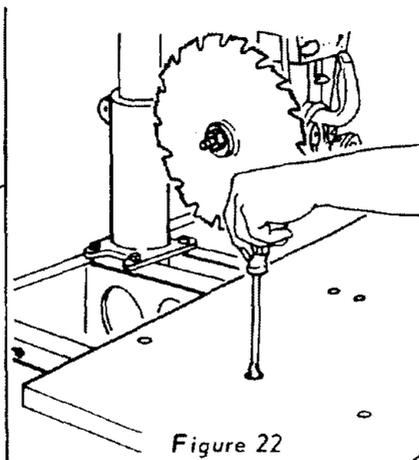


Figure 22

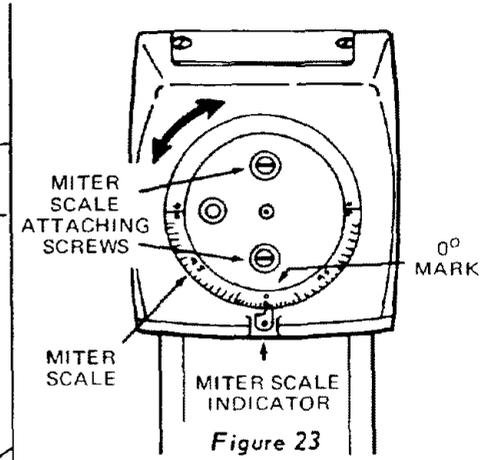


Figure 23

g. Now slowly move the carriage outward along the radial arm. The tooth you have marked should just touch the long leg of the square at all points. If it does not, make the following adjustments:

- (1) If your marked tooth moves *into* the square as the carriage is moved outward, tap the left-front edge of the table with a rubber mallet until you can perform step "g" correctly.
- (2) If the tooth moves *away from* the square, tap the right-front table edge to make the correction.
- (3) Recheck until you *can* perform step "g" correctly, then securely tighten all six of the front table hold-down screws. Also refer to page 20, steps "i" and "j" of Trouble Shooting Section.

h. Loosen the two miter-scale attaching screws and rotate the scale to align its 0° mark with the miter-scale indicator. Tighten the screws.

NOTE: This squaring of the crosscut travel will simultaneously set *both* of the 45° index positions of the radial arm.

5. Installing the Remaining Table Boards (Figure 24)

- a. Position the rip fence, spacer board and rear table board behind the front table board, as shown.
- b. Install the two table clamps in the slots provided for them at the rear of the saw base, and tighten them securely.

NOTE: The life of your saw table will be lengthened considerably if you will cover the front table with a fitted piece of 1/4-inch plywood. This should be tacked in place for easy replacement. Use of such a cover will allow you to do all cutting into the cover, rather than your table top.

6. Setting the Bevel-Index Indicator (Figure 25)

- a. The bevel-index indicator should read 0° on the

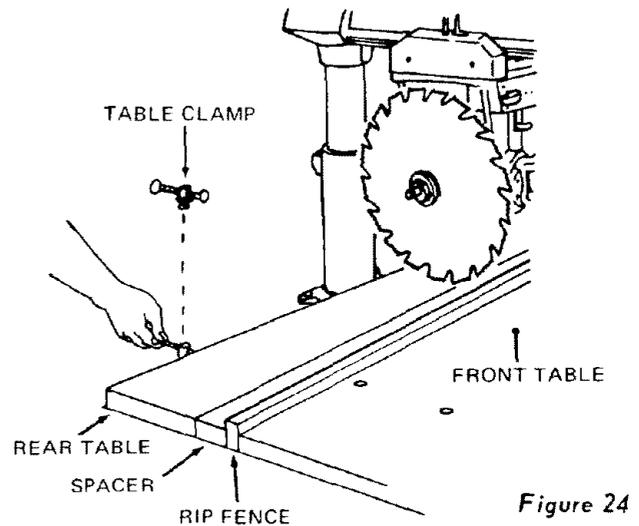


Figure 24

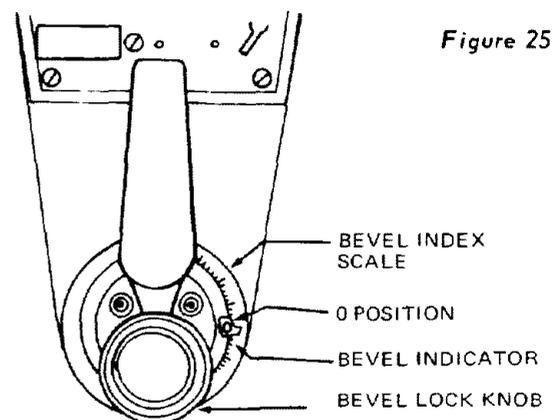


Figure 25

bevel-index scale when the motor is locked (bevel lock knob tightened) into position with the saw blade vertical.

- b. If necessary, loosen the indicator attaching screw, adjust the indicator to the 0° reading, then retighten the attaching screw.

assembly and adjustments

7. Adjusting the Rip-Scale Indicators (Figures 26 – 29)

NOTE: The two rip scales and indicators are intended only for use in making quick settings. For maximum accuracy of setting, make direct measurements between the blade and the rip fence.

- Loosen the yoke clamp handle, hold the swivel latch-pin knob up, swivel the yoke until releasing the swivel latch-pin knob will allow the yoke to index at its 90° position, then retighten the yoke clamp handle.
- Loosen the carriage lock knob and move the carriage until the saw blade just touches the rip fence. The blade should be free to rotate while just scraping the fence. Tighten the carriage lock knob.
- Set the right-hand indicator at "0".

NOTE: With the rip fence positioned at normal, as in figure 27, the bottom right-side scale is used to read the saw-blade in-rip setting. If the rip fence is moved to the extreme rear position, the top scale is used.

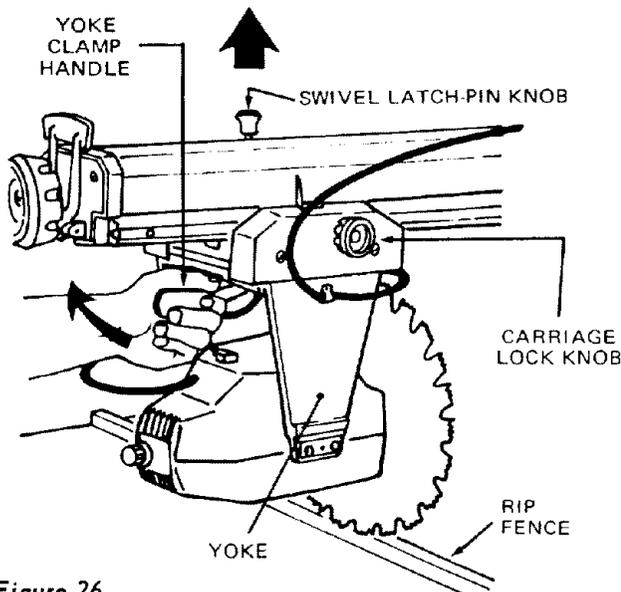


Figure 26

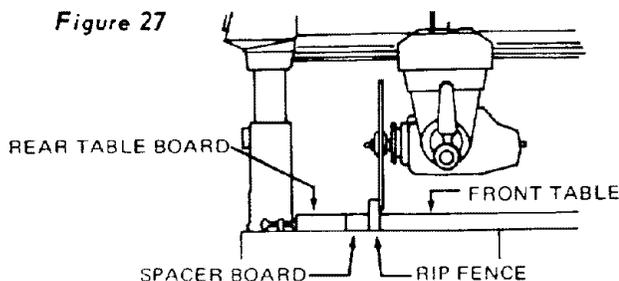


Figure 27

Figure 28

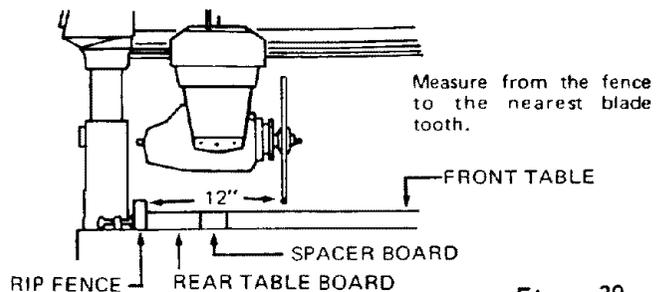
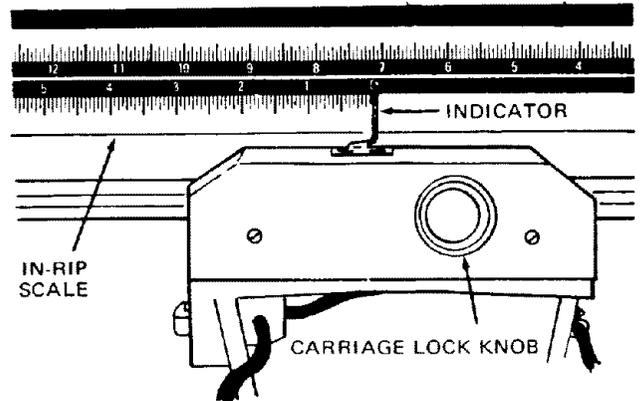


Figure 29

- Loosen carriage lock knob, position rip fence and blade as shown in figure 29, tighten carriage lock knob, and set left-hand indicator at "12".

NOTE: The top left-side scale is used to read the saw-blade out-rip setting whenever the rip fence is at the extreme rear position. If fence is at the normal position, the lower left-side scale is used.

- After completing the indicator adjustments, swivel the yoke back to the 90° position.

8. Reinstalling the Guard and Adjusting the Anti-Kickback and Spreader Assembly (Figure 30)

- Carefully fit the guard assembly into position over the saw blade, seating the inner guard flange in the groove on the end of the motor.
- Tighten the guard clamp screw.
- Feed the tool-light cord end between the yoke and the motor, and insert the plug into the receptacle on top of the motor.
- Loosen the wing nut, lower the anti-kickback assembly to lowest position, then retighten the wing nut.
- Sight (visually) to check for proper alignment of the anti-kickback spreader with the saw blade. If the spreader is misaligned, adjust it as follows: Loosen the two hex-head screws that hold the anti-kickback

electrical connections

mounting bracket, shift the spreader into alignment with the saw blade, then retighten the two screws to hold the bracket securely. Check to make sure the spreader is aligned throughout its travel.

NOTE: Periodically check, and maintain sharp tips on the anti-kickback pawls.

IMPORTANT: If you experience any difficulty in obtaining trouble-free sawing operations, refer to the trouble-shooting section in this manual.

9. Preparing Rear Table for Shaping (Figure 30)

For use of a Molding Head Cutter (page 17) the rear table requires an opening for clearance of the motor end. Cut this opening as shown in figure 30 inset.

POWER SUPPLY AND MOTOR CONNECTIONS

1. Motor Specifications

The A-C motor used in this saw is a capacitor-start, non-reversible type having the following specifications:

| | |
|--|--|
| Horsepower | 2.50 (developed) @ 120V. 2.50 (developed) @ 240V. |
| Voltage | 120/240 |
| Amperes | 11/5.5 |
| Hertz (cycles) | 60 |
| Phase | Single |
| RPM | 3450 |
| Rotation as viewed from saw-blade end | Clockwise |

CAUTION: YOUR SAW IS WIRED FOR 120V OPERATION. CONNECT TO A 120V, 15-AMP. BRANCH CIRCUIT AND USE A 15-AMP. TIME-DELAY FUSE OR CIRCUIT BREAKER. IF THE MOTOR IS RECOMMENDED FOR 240V OPERATION, CONNECT TO A 15-AMP. BRANCH CIRCUIT AND USE A 15-AMP. TIME-DELAY FUSE OR CIRCUIT BREAKER.

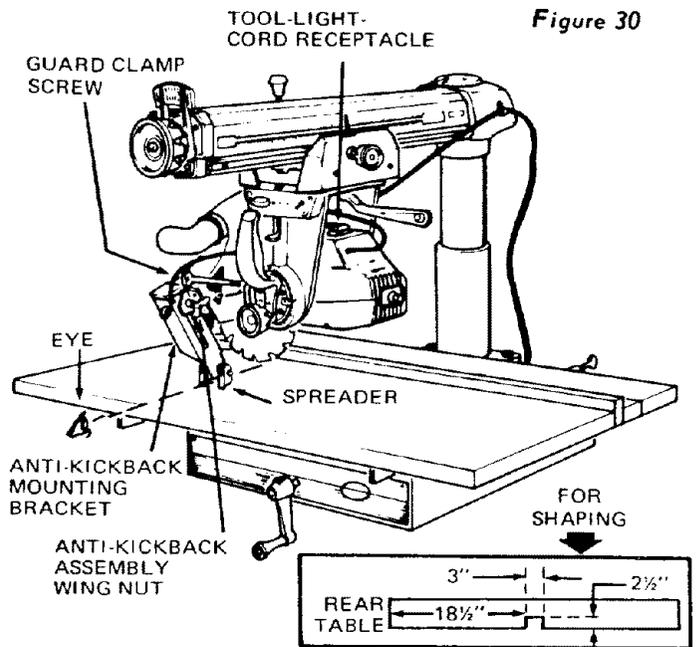
ELECTRICAL CONNECTIONS

WARNING: CHANGES IN ELECTRICAL CONNECTIONS SHOULD BE MADE BY A QUALIFIED ELECTRICIAN.

1. Changing Motor Connections

a. Under normal home workshop usage, and if proper (full) voltage is supplied to the motor, your saw will operate efficiently on 120V, as connected at the factory. However, if any of the following conditions exists, it will be advisable for you to reconnect the motor for 240V operation — to obtain the efficiency and performance for which your saw is designed:

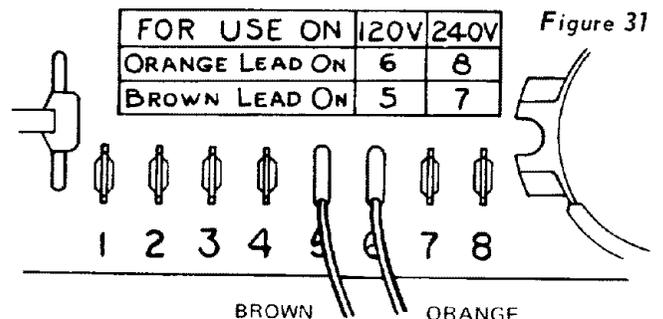
- (1) Continuous heavy-duty operations.



- (2) Either an undersized or an overloaded branch circuit serving the saw motor.
 - (3) Low voltage supplied by the power source, which the power company cannot correct.
- b. Motor wiring connections for 120V (as made at the factory) are described below. Necessary reconections for 240V operation are also described following. Whenever changing connections from 120V to 240V or vice-versa, make certain that *all* necessary steps (including proper fusing of the branch circuit) are completed.

2. Connections for 120V A.C. (Figure 31)

- a. Remove nameplate cover from motor to expose terminal board.
- b. The wires inside of the motor must be connected as follows:
 - (1) The orange-colored wire on number 6 terminal.
 - (2) The brown-colored wire on number 5 terminal.
- c. Use the 120V power-cord plug furnished with your saw.

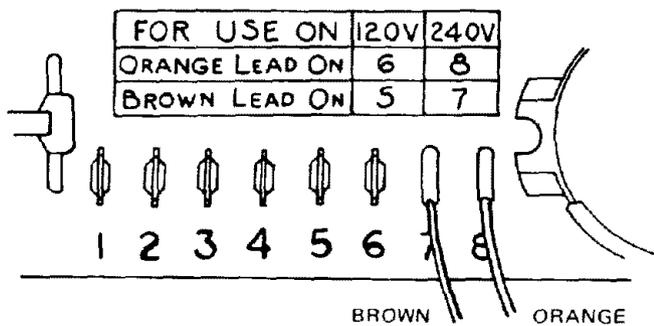


electrical connections

3. Connections for 240V A.C. (Figure 32)

- a. The wires inside the motor terminal box must be connected as follows:
 - (1) The orange-colored wire on number 8 terminal.
 - (2) The brown-colored wire on number 7 terminal.
- b. Replace the 120V power-cord plug with a (3-blade) 240V plug, connecting the power-cord white and black leads, respectively, to the two "hot" plug blades — and connecting the power-cord grounding wire to the third (neutral) plug blade.
- c. Plug your saw into a 240V, 3-blade receptacle.
- d. Make certain the receptacle is connected to a 240V A-C power supply through a 240V branch circuit having at least a 15-amp. capacity, and protected by a 15-amp. time-delay fuse or circuit breaker.

Figure 32



MOTOR SAFETY PROTECTION

NOTE: This motor should be blown out, or "vacuumed", frequently to prevent sawdust interference with normal motor ventilation.

Your saw motor is equipped with a manual-reset, thermal-overload protector designed to open the power-line circuit when the motor temperature exceeds a safe value (figure 33).

1. If the protector opens the line and stops the saw motor, immediately press the saw switch to the "OFF" position, and allow the motor to cool.
2. After cooling to a safe operating temperature, the overload protector can be closed manually by pushing in the red button on the top of the motor. If the red button will not snap into place immediately, the motor is still too hot and must be allowed to cool for a while longer. (An audible click will indicate protector is closed.)

3. As soon as the red button will snap into running position, the saw may be started and operated normally, by pulling out the saw switch to the "ON" position.
4. Frequent opening of fuses or circuit breakers may result if motor is overloaded, or if the motor circuit is fused differently from recommended. Overloading can occur if you feed too rapidly or if your saw is misaligned so that the blade heels. Do *not* use a fuse of greater capacity without consulting the power company.
5. Although the motor is designed for operation on the voltage and frequency specified on motor nameplate, normal loads will be handled safely on voltages not more than 10% above or below the nameplate voltage. Heavy loads, however, require that voltage at motor terminals equals the voltage specified on nameplate.
6. Most motor troubles may be traced to loose or incorrect connections, overloading, reduced input voltage (such as small size wires in the supply circuit) or to an overly-long supply circuit. Always check the connections, the load and the supply circuit, whenever the motor fails to perform satisfactorily. Check wire sizes and lengths with the table following.

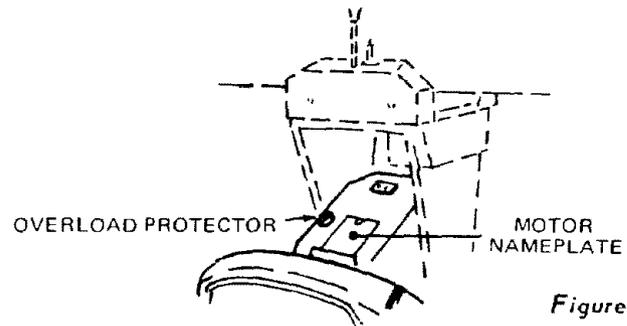


Figure 33

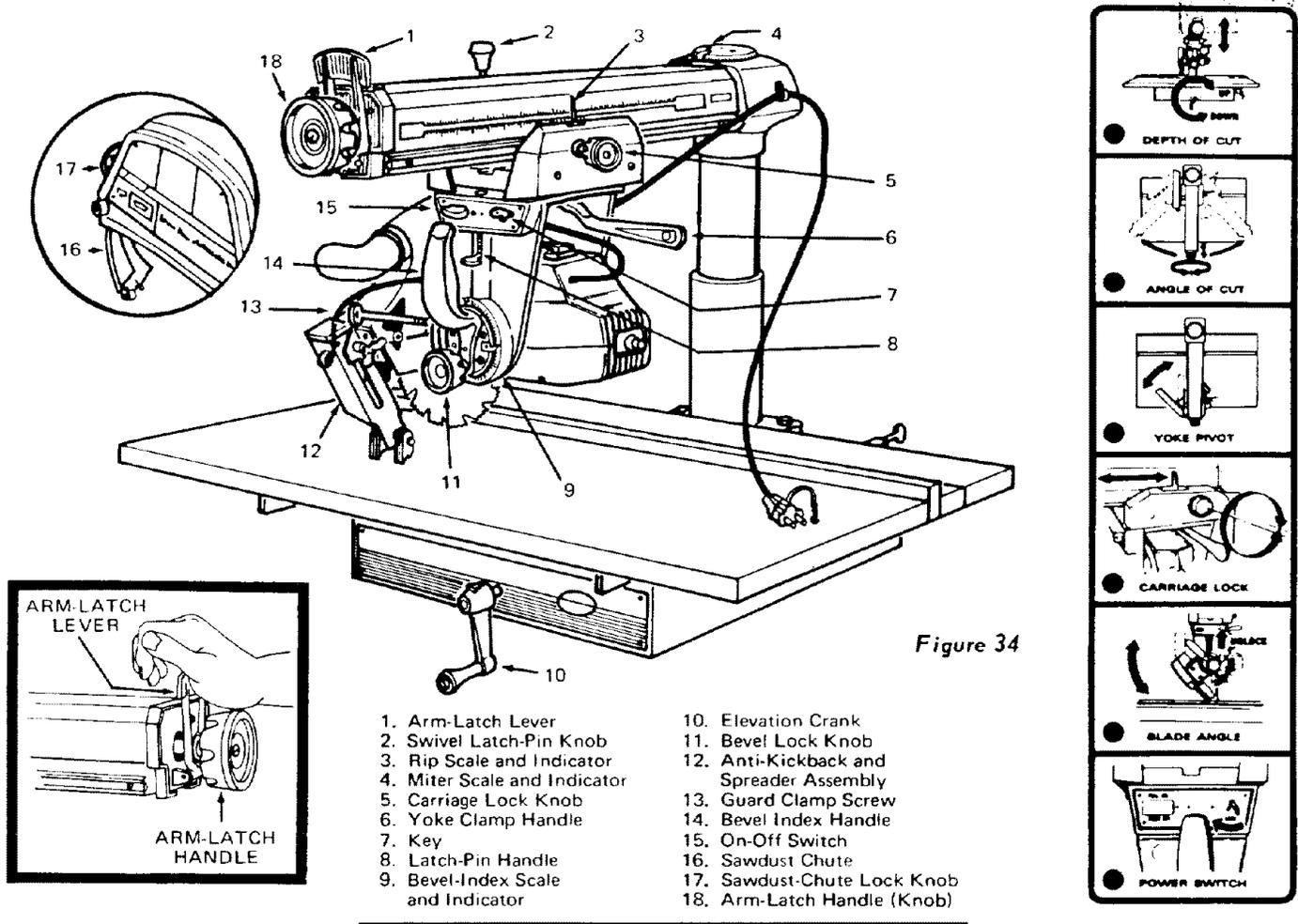
WIRE SIZES

The following table lists recommended wire sizes for connecting the motor to the power source. These sizes should be maintained for trouble-free operation of the saw. If an extension cord is used, it should be a 120V or 240V, 3-wire type designed for grounding the tool.

| Length of the Conductor | Wire Size Required (American Wire Gauge Number) | |
|-------------------------|--|----------------|
| | 240 Volt Lines | 120 Volt Lines |
| 50 feet or less | No. 14 | No. 12 |
| 100 feet or less | No. 12 | No. 10 |
| 100 feet to 150 feet | No. 10 | No. 8 |
| 150 feet to 200 feet | No. 8 | No. 6 |
| 200 feet to 400 feet | No. 6 | No. 4 |

NOTE: For circuits of greater length, the wire size must be increased proportionately in order to deliver ample voltage to the saw motor.

LOCATIONS AND FUNCTIONS OF CONTROLS



A series of six diagrams is located on the top surface of the radial arm. These designate the controls that must be used in basic set-ups and operating procedures. You should become familiar with these diagrams and the operating instructions that follow, *before* operating your saw.

1. Depth of Cut

- The diagram shows the elevation crank (10, figure 34), which is used to raise and lower the saw blade.
- Clockwise rotation raises the blade... counterclockwise rotation lowers it. One complete turn of the handle will raise or lower the saw blade 1/8-inch.

2. Angle of Cut

CAUTION: WHEN MOVING THE RADIAL ARM IN ANY DIRECTION BEYOND 45° (LEFT OR RIGHT), ALWAYS PULL OUT THE ARM-LATCH LEVER (1, FIGURE 34), OR LOOSEN THE LEVER BY ROTATING THE ARM-LATCH HANDLE (18) COUNTERCLOCKWISE UNTIL IT STOPS, TO PREVENT DAMAGING THE ARM-LOCK PIN. DAMAGE OF THIS NATURE WOULD PREVENT PROPER INDEXING OF THE RADIAL ARM AT THE 0° AND 45° POSITIONS (LEFT OR RIGHT).

- Two controls are involved in releasing, securing and indexing the angle of the radial arm. These are: the arm-latch handle (18, figure 34), and the arm-latch lever (1).

WARNING: THE SAW SHOULD NEVER BE OPERATED WITH THE SAW BLADE OUTSIDE OF THE TABLE AREA, EVEN THOUGH THE RADIAL ARM CAN BE ROTATED A FULL 360° AND LOCKED IN ANY POSITION.

- The arm is unlocked from any position by a slight counterclockwise rotation of the arm-latch handle and is locked in any desired miter position by rotating the arm-latch handle clockwise until tight. The radial arm has positive stops at 0° and 45° left and right, and is released from these index positions by unlocking the arm-latch handle 1/4-turn, and pulling out the arm-latch lever.
- For the most positive and accurate settings at the index positions, the following is recommended:

operating controls

(1) If the radial arm is already indexed, rotate the arm-latch handle (18, figure 34) *1/4-turn counterclockwise from the locked position*, pull out the arm-latch lever, and move the radial arm off the index position. Release the arm-latch lever.

(2) Move the radial arm into the desired index position (*do not bump or jar it*) and push on the arm-latch lever solidly with the palm of your hand (figure 34 inset). This is very important as it ensures proper seating of the arm lock pin in the arm latch, thus always setting the arm at the correct position.

(3) Lock the radial arm by rotating the arm-latch handle clockwise until tight.

3. Yoke Pivot

a. Two controls are used in this operation. They are: the swivel latch-pin knob (2, figure 34) and the yoke clamp handle (6, figure 34).

b. A swivel latch pin automatically indexes the yoke at each 90° position. Lift the spring-loaded swivel latch-pin knob to release this pin.

c. The yoke clamp handle locks the yoke to the carriage in any position. Pull the handle forward to release the yoke; push the handle rearward to secure the yoke.

4. Carriage Lock

a. The carriage lock knob (5, figure 34) is rotated clockwise to secure the carriage on the radial arm, and counterclockwise to release it.

b. When performing a square or miter-angle crosscut, the carriage lock knob must be rotated counterclockwise until the carriage is free to travel along the arm. This knob should be tightened except when the operator is ready to grasp the bevel index handle (14, figure 34) and make a cut.

5. Blade Angle

a. The two controls used in angular positioning and indexing of the motor, to provide the desired saw-blade (bevel) angle, are: the bevel lock knob (11, figure 34) and the latch-pin handle (8, figure 34).

b. The bevel-index scale (9, figure 34) indicates the angular position of the motor with respect to horizontal, from 0° to 90° in either vertical position.

c. The bevel latch pin automatically indexes the motor at 0° , 45° and 90° up and down. Lift the spring-loaded latch-pin handle to release this pin. At any other position, the latch pin does not engage.

d. The bevel lock knob locks the motor to the yoke when the motor is in any position. Rotate the knob clockwise to lock, counterclockwise to unlock.

6. Power Switch and Key

a. This saw cannot be operated without the key, and the key cannot be removed from the lock while the saw motor is running.

b. To release the switch lever (15, figure 34) insert the key (7, figure 34) in the slot and turn it counterclockwise until it stops. Rotate the key clockwise to lock the switch.

c. To start the saw, engage your forefinger under the left side of the switch lever and pull the lever outward.

d. To stop the saw, simply push the switch lever with finger or thumb.

WARNING: When leaving the saw unattended, lock the ON-OFF switch and *remove* the key.

POSITIONING SAWDUST CHUTE, AND ANTI-KICKBACK AND SPREADER ASSEMBLY, FOR RIPPING

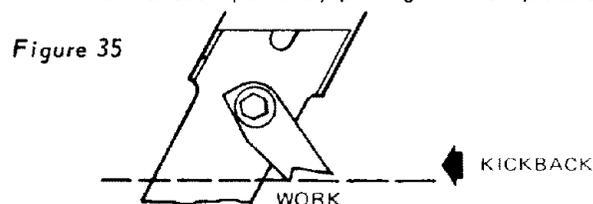
WARNING: NEVER POSITION THE GUARD CHUTE OR ANTI-KICKBACK ASSEMBLY WITH THE POWER ON. NEVER POSITION THE ANTI-KICKBACK PAWLS BY GRASPING THE PAWLS OR SPREADER.

For all crosscutting operations (those operations in which the carriage is traveled along the radial arm to feed the saw blade into the workpiece) both the sawdust chute (16, figure 34) and the anti-kickback and spreader assembly (12, figure 34) must be elevated to clear the workpiece or the fence, whichever is higher.

1. The Anti-Kickback and Spreader Assembly

a. The anti-kickback and spreader assembly (12, figure 34) is used during ripping operations and is adjustable to accommodate the thickness of the board being ripped. A wing nut in the guard secures the assembly.

b. The anti-kickback and spreader assembly is positioned by grasping the top of the light housing assembly (23, figure 3 on p. 30), loosening the wing nut, and raising or lowering the assembly until the anti-kickback pawl point nearest the saw blade rests on the top surface of the workpiece, with the bottom edge of the *pawls angled slightly downhill* to the top surface of the workpiece. (See figure 35.) Before making the cut, check the effectiveness of the anti-kickback pawls by placing the workpiece under



basic saw operations

the pawls and attempting to slide it in the direction of kickback. If the pawls do not catch, further adjustment is necessary.

- c. When positioning the anti-kickback and spreader assembly for bevel ripping, lower the assembly until the locknut just clears the workpiece. If the pawls do not catch, further adjustment is necessary.
- d. Before repositioning the yoke to the crosscut position, raise the anti-kickback assembly to the upper limit and secure.
- e. The tips of the anti-kickback pawls should be checked occasionally and kept sharp.

2. The Sawdust Chute

- a. The sawdust chute (16, figure 34) is used to help propel sawdust from the cut and provide a hold-down for boards during ripping.
- b. The sawdust chute is positioned by grasping the upper tab at lower end of chute, loosening the knob (17, figure 34) and raising or lowering it to just clear

the top surface of the board being ripped. Tightening the knob secures the chute.

- c. Before repositioning the yoke to the crosscut position, raise the chute to the upper limit and secure.

IMPORTANT: In ripping operations the workpiece is *always* fed from the sawdust chute side, *never* from the anti-kickback side of the guard. (See figures 41 and 42.)

PRECISION INDEXING

Experienced operators of precision equipment, such as your Craftsman Radial-Arm Saw, normally acquire the habit of indexing the machine in one direction only, whenever a new setting is made in preparation for a different operation. For example: when moving the radial arm to a new position, it is advisable to move it slightly past the desired index position, then return it slowly and carefully to latch and lock it. Figure 34 inset shows the radial arm being securely indexed by "tapping" the arm latch lever with the palm of the hand. Swivel indexing and bevel indexing can be accomplished in a similar manner. This indexing technique tends to neutralize any stresses imposed upon the saw components, and contributes to the high degree of accuracy the saw is capable of producing when operated expertly.

BASIC SAW OPERATIONS

REQUIREMENTS FOR CROSSCUT

(OPERATIONS 1 THROUGH 4)

1. Be sure you return the carriage to the full rearward position at the conclusion of each cut. *Never* remove your hand from the bevel index handle unless the carriage is in this position. Allow the saw blade to come to a complete stop before removing the workpiece from the saw table.
2. Arbor nut must be tight and saw blade guard installed in a horizontal position with anti-kickback device in full up position.
3. Arm latch handle (knob) must be tight.
4. Work must be held firmly against table and fence. For workpieces thicker than the fence is high, it is recommended that a higher fence be cut (at least workpiece thickness) and inserted for that operation being performed. Always place the fence in the most forward position (farthest from the column support) compatible with the workpiece being processed and the operation being performed. With the carriage fully retracted, the blade should not contact the workpiece when placed against the fence, within the stated capacities of your saw.
5. Blade should be sharp and correctly set.
6. Hands must be kept well away from saw blade.
7. Yoke clamp handle must be in locked position.
8. Bevel index knob must be tight.
9. For operations No. 3 and No. 4, observe additional instructions under paragraph, "Operating Controls", "Blade Angle".

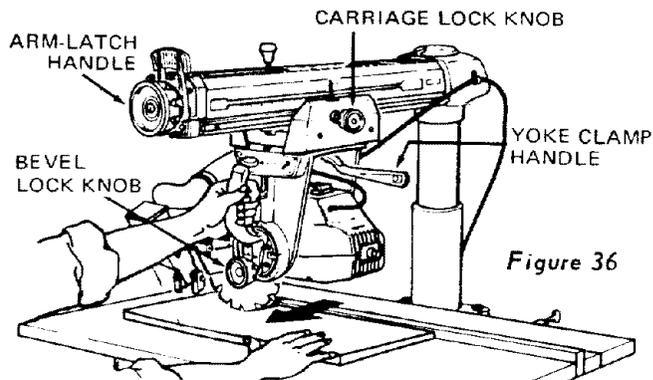


Figure 36

OPERATION NO. 1 – CROSSCUT

Crosscutting is the process of sawing the workpiece by pulling the saw blade through it and using the fence as a support for the edge of the workpiece. Never crosscut free-hand.

WARNING: BEFORE CROSSCUTTING, MAKE SURE THE ARM LATCH, BEVEL LOCK AND YOKE CLAMP ARE ALL SECURED, NEVER USE A LENGTH STOP OR A FIXED GUIDE ON THE FREE END OR EDGE OF A WORKPIECE. (SEE INSTRUCTION 15 UNDER "SAFETY INSTRUCTIONS TO OPERATOR".) DO NOT CROSSCUT WORKPIECES THAT PLACE YOUR HANDS CLOSE TO THE PATH OF THE SAW BLADE. WHEN MORE EXPERIENCE IS GAINED BY USING THE SAW, IT WILL BE NOTICED, THAT WHEN PULLING THE SAW TOWARD YOU DURING CROSSCUTTING, THE BLADE TENDS TO FEED ITSELF THROUGH THE WORK DUE TO THE ROTATION OF THE BLADE AND THE DIRECTION OF THE FEED. THEREFORE, THE OPERATOR SHOULD DEVELOP THE HABIT OF HOLDING HIS RIGHT ARM STRAIGHT FROM THE SHOULDER TO THE WRIST.

basic saw operations

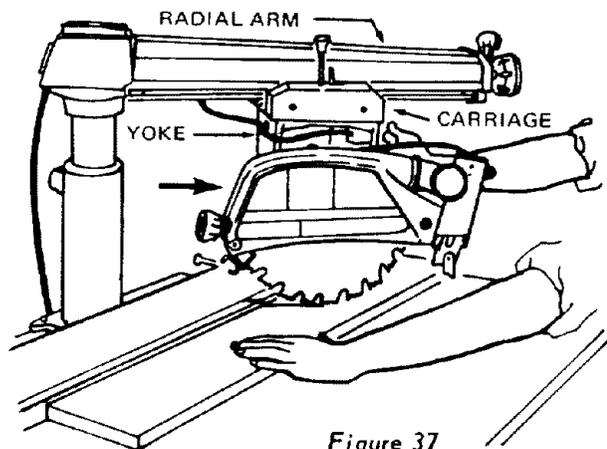


Figure 37

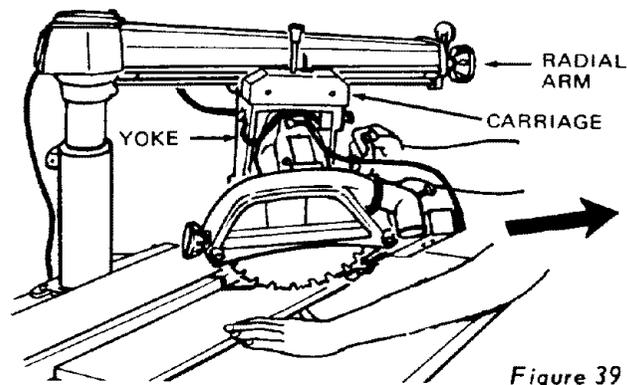


Figure 39

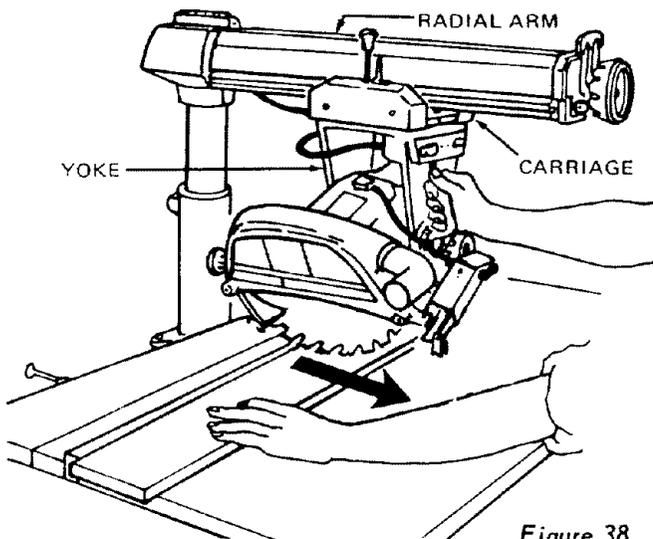


Figure 38

OPERATION NO. 2 — MITER CROSSCUT

Miter crosscutting is the process of sawing a board at any angle other than a 90° (square) cut. (See figure 37.) The 45° miter angle is a popular one, since two boards cut at 45° can be assembled to form a 90° corner for producing a square or rectangular frame. The radial arm is set to the desired angle of cut, and the yoke and bevel settings are indexed at 0° (and locked), as in square crosscutting. The board being cut is held firmly against the fence, and the carriage is pulled forward along the radial arm to perform the desired cut. As in "Operation No. 1", the carriage should be returned to full rear position, and the saw blade allowed to come to a complete stop, *before* removing the workpiece from the saw table.

OPERATION NO. 3 — BEVEL CROSSCUT

Bevel crosscutting is the process of sawing at 90° (square) across the board with the saw blade set at an angle other than 90° to the saw table. (See figure 38.) The radial arm and yoke are indexed at 0° and locked, but the bevel is set to the desired angle of cut. The board is held firmly against the fence, and the carriage is pulled forward along the radial arm to produce the cut. The carriage should be returned to

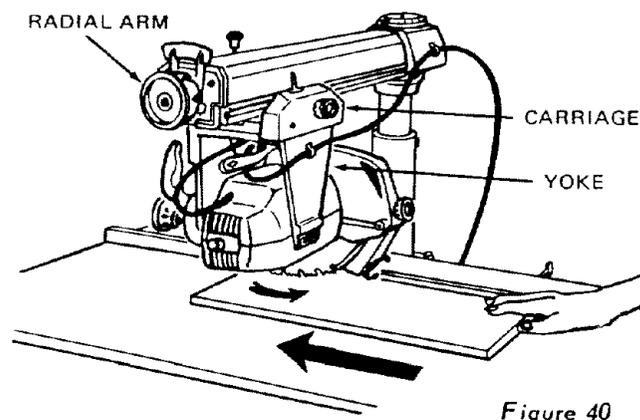


Figure 40

full rearward position, and the saw blade allowed to come to a complete stop, *before* removing the workpiece from the saw table.

OPERATION NO. 4 — COMPOUND CROSSCUT

Compound crosscutting is a combination of miter and bevel crosscutting. (See figure 39.) The radial arm and bevel are set to produce the desired cut; the yoke is indexed at 0° and locked. The board is held firmly against the fence, and the carriage is pulled forward along the radial arm to produce the cut. Again, the carriage should be returned to full rearward position, and the saw blade allowed to come to a complete stop, *before* removing the workpiece from the saw table.

REQUIREMENTS FOR RIPPING

OPERATIONS 5 AND 6

1. Carriage lock knob must be tight.
2. Radial arm must be locked in 0° position.
3. Saw blade must be parallel to fence, to minimize possibility of kickbacks.
4. Work must be held firmly against table and fence while feeding through.
5. Guard chute and anti-kickback pawls must be properly set. Observe instructions under "ADJUSTING GUARD CHUTE AND ANTI-KICKBACK AND SPREADER ASSEMBLY FOR RIPPING OPERATIONS", preceding.

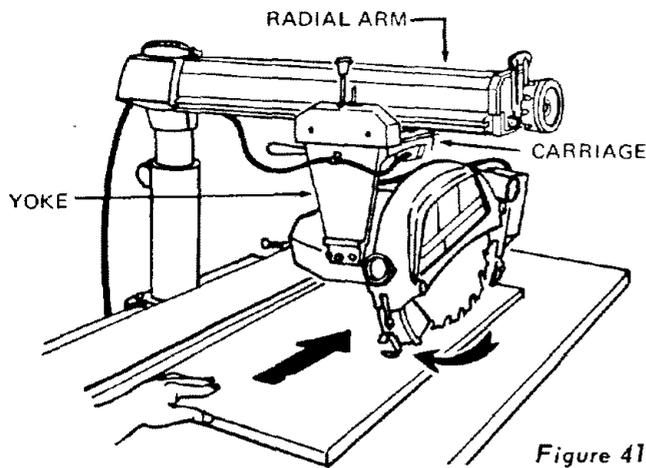


Figure 41

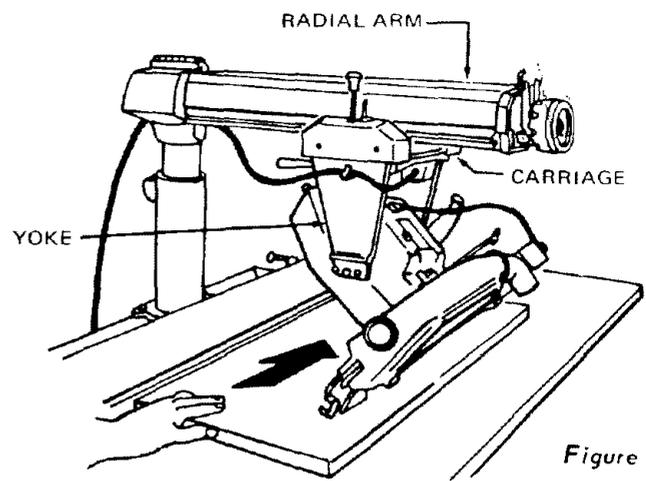


Figure 42

6. Blade should be sharp and correctly set.
7. Hands must be kept *well* away from saw blade.
8. When ripping narrow or short stock, *always* use a push board.

OPERATION NO. 5 — OUT-RIPPING AND IN-RIPPING

1. Ripping is the process of sawing the workpiece by feeding it into the saw blade when using the fence as a guide and as a positioning device to obtain the desired width of cut.

WARNING: NEVER RIP FREE-HAND. BEFORE RIPPING, MAKE SURE THE GUARD, SPREADER AND ANTI-KICKBACK PAWLS ARE SET UP PROPERLY. ALSO, MAKE SURE THE SAW BLADE IS PARALLEL WITH THE FENCE. NEVER RIP WORKPIECES SHORTER THAN THE SAW BLADE DIAMETER.

2. Since the work is pushed along the fence, it must have a reasonably straight edge in order to make sliding contact with the fence. Also, the work must make solid contact with the table, so that it will not wobble. Provide a straight edge, even if this means temporary nailing of an auxiliary straight-edged board to the work. If the workpiece is warped, turn the hollow side down.
3. Always use the saw guard and make sure the spreader is correctly aligned with the saw kerf. Wood cut with the grain tends to spring the kerf closed and bind the blade and a kickback could occur.

4. Stand a little to one side of center to avoid being sprayed with sawdust and to be clear of work in case of kickback.
5. When ripping short or narrow work, always use a push stick applied to the section of the workpiece between the blade and fence . . . push the work past the blade so it is clear of the blade. This procedure will minimize the possibility of kickbacks.

Out-Ripping (See figure 41.) The bevel is indexed and locked at 0°. The yoke is turned 90-degrees in a counter-clockwise direction (viewed from above), from the crosscut position. When you are standing in front of the saw, the blade will rotate clockwise. *Before* positioning the guard chute and anti-kickback pawls, lower the blade to just cut into the table. After positioning the guard chute and anti-kickback pawls, the workpiece is fed from the chute (*left-hand*) side of the guard, as shown. The "Out-Rip" scale is on the left-hand side of the radial arm.

OPERATION NO. 6 — BEVEL RIPPING

Bevel ripping is either in-ripping or out-ripping as described preceding, except the saw blade is tilted out of perpendicular to the saw table surface. Figure 42 shows a typical bevel out-ripping operation. The bevel is set to the desired bevel angle, and the yoke is positioned for in-ripping or out-ripping, as required. All requirements and observations applicable to normal ripping operations also apply to bevel ripping.

RECOMMENDED ACCESSORIES

| ITEM | CAT. NO. | ITEM | CAT. NO. |
|---|----------|--------------------------------------|----------|
| Cabinet | 9 10315 | Sanding Wheel — 8-Inch | 9 2274 |
| Stand | 9 1038 | Sanding Wheel — 10-Inch | 9 22723 |
| Bench | 9-1071 | Dust Collector | 9-16996 |
| Shaper Fence | 9-2954 | Taper Jig | 9-3233 |
| Hold-Down Attachment | 9-3230 | Satin Cut Dado — 7-Inch | 9-3257 |
| Key Chuck | 9-2980 | Satin Cut Dado — 8-Inch | 9-3253 |
| Miter Vise | 9-3279 | Heavy Duty Dado — 8-Inch | 9-32473 |
| Molding Head Guard — 7-Inch | 9-29524 | Molding Head Single Cutter | 9 3215 |
| Molding Head Guard — 8-Inch | 9-29523 | Molding Head Three Cutter | 9 3221 |
| Rotary Surface Planer — Carbide Tip | 9-29513 | Sanding Drum — 3-Inch | 9 25246 |
| Sanding Plate — 10-Inch | 9 22724 | Lower Ring Guard | 9 29008 |

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

safety instructions to operator

1. Be sure to read the following instructions carefully before operating the saw.

WARNING: DO NOT CONNECT POWER CORD UNTIL THE FOLLOWING STEPS HAVE BEEN SATISFACTORILY COMPLETED.

- a. Assembly and installation.
- b. Examination and operating familiarity with ON-OFF switch, elevation control, bevel control, rip control, and miter control.
- c. Review and understanding of the operating procedures which follow.

CAUTION: Always disconnect the power when changing the set-up, or making adjustments. Shut off motor before performing layout work on the saw table. ALWAYS return the carriage to the full rear position after each crosscut type operation.

2. The saw should be bolted down.
3. Set carriage lock before moving machine.
4. Position your entire saw (or saw and bench) to slope slightly rearward, so the carriage will not roll forward due to gravity.
5. Kickbacks can cause serious injury. A kickback occurs when a part of the workpiece binds on the saw blade and the rip fence or other fixed object, rises from the table, and is thrown toward the operator. Kickbacks are usually caused by one or more of the following conditions:
 - a. Failure to use a spreader when ripping, or failure to maintain the spreader in alignment with the saw blade.
 - b. Improperly conditioned (dull) saw that permits the material to pinch on the out-feed edge of the saw and rise from the table.
 - c. Failure to determine that the rip fence and the saw blade are parallel to each other.
 - d. Ripping wood that has a twisted grain, does not have a straight edge to guide along the fence, or wood that is twisted or not flat (which may rock on the table and pinch the blade).
 - e. Confining the cut-off piece when ripping.

- f. Ripping by applying the feed force to the section of the workpiece that will become the cut-off (free) piece (feed force when ripping should always be applied between the saw blade and the fence . . . use a push stick for narrow or short work).
- g. Releasing workpiece before operation is complete . . . not pushing the workpiece all the way past the saw blade.

NOTE: Injury from kickbacks may be prevented or minimized by:

Avoiding any of the causes noted above . . .

Making sure (by trial) before starting the cut that the anti-kickback pawls will stop the kickback once it has started . . .

Keeping your face and body always out of line of possible kickbacks, including turning the switch ON and OFF . . .

Always wearing safety goggles . . .

6. Whenever possible, perform rip, bevel rip, and plough cuts with the saw in the out-rip position. This provides the most stable setup (carriage bearings nearest the column) and the greatest visibility of the sawblade.
7. The saw should be positioned when ripping so neither the operator nor a casual observer is forced to stand in line with the saw blade.
8. Before starting work, verify that no play exists in the carriage and that arm, yoke, and bevel locks/clamps are tight.
9. Use only accessories that are designed for this machine.
10. The saw work area should have adequate overhead, non-glare light and adequate surrounding work space.
11. A large proportion of saw accidents is caused by dull, badly set, improperly filed cutting tools, by gum or resin adhering to cutting tools, and by fence misalignment (out-of-parallel) with the sawblade. Such conditions cause the material to stick, jam, stall the saw, or kick-back at the operator. Cracked saw blades should be discarded immediately. A sawblade can become cracked if it wobbles or if it is not in balance. *Never attempt to free a stalled saw blade without turning the saw "OFF".* Avoid potential injury by proper cutting tool and machine maintenance."

CAUTION: DO NOT cycle the motor switch ON and OFF rapidly, as this might cause the saw blade to loosen. In the event this should ever occur, allow the saw blade to come to a complete stop and re-tighten the arbor nut normally, not excessively.

12. Gloves should not be worn while operating the saw. Loose flowing garments, jewelry (rings, wrist watches, etc.) and neckties should never be worn. Long sleeves should be rolled to above the elbows.
13. Always wear safety goggles to protect the eyes. In addition, wear a face shield if the operation is dusty, and ear protectors (plugs or muffs) during extended periods of operation.
14. Provide proper support for the workpiece, based on its size and the type of operation to be performed. Hold the work firmly against the fence. When ripping short workpieces (under 12-inches long) or narrow pieces (under 6-inches wide), use a push stick applied to the section of the workpiece between the blade and the fence.
15. Never use a length stop on the free end or edge of the workpiece. Never hang onto or touch the free end of workpiece, or a free piece that is cut off, while power is "ON" and/or the saw blade is rotating. In short, to guard against kickbacks or other potential accidents, the cut-off piece in any thru-sawing operation must never be confined – it must be allowed to move laterally.
16. Do not leave a long board unsupported so the spring of the board causes it to shift on the table. A support should be used to catch the end of the board you are supporting.
17. Make sure your fingers do not contact the terminals of power or motor plugs when installing or removing the plug to or from a live power source.
18. Never climb on or near the saw when power is on. Never leave the saw with power on, or before the cutting tool has come to a complete stop. Lock the motor switch and put away the key when leaving the saw.
19. Avoid awkward hand positions, where a sudden slip could cause a hand to move into a saw blade or other cutting tool. Never reach in back of or around the cutting tool with either hand to hold down the workpiece.
20. Always position the GUARD CHUTE and the anti-kickback and spreader assembly for rip type operations. Also make sure the cutting tool, arbor collars and arbor nuts are installed properly. Keep guards in place; use the proper guard.
21. Do not use any blade or other cutting tool marked for an operating speed in excess of the design speed of the saw. Never use a cutting tool larger in diameter than the diameter for which the saw was designed. For greatest safety and efficiency when ripping, use the maximum diameter blade for which the saw is designed, since under these conditions the spreader is nearest the blade.
22. The use of abrasive or cut-off wheels, or wire wheels can be dangerous and is not recommended. (Abrasive or cut-off wheels are used to saw many different materials including metals, stone, and glass.)
23. Do not position the arm so the operation you are performing permits the cutting tool to extend beyond the edges of the table.
24. Never turn your radial arm saw "ON" before clearing the table or work surface of all objects (tools, scraps of wood, etc.) except the workpiece and related feed or support devices for the operation planned.
25. Objects can be thrown upward toward the operator by the back of the blade if proper operating procedures are not followed. This usually occurs when a small, loose piece of wood or other object contacts the rear of the revolving blade. It can be avoided by removing all loose pieces from the table immediately after they are made, using a long stick, and keeping the guard in place at all times. Use extra caution when the guard assembly is removed for molding, and replace the guard as soon as that operation has been completed.
26. Never perform any operation "free hand". This term means feeding the carriage into the workpiece or feeding the workpiece into the saw blade or other cutting tool without using the fence or some other device which prevents rotation or twisting of the workpiece during the operation. *Never "rip" (cut with the grain) narrow or long workpieces in the crosscut position . . . feeding saw blade into the stationary workpiece. Never make a miter cut with the arm in the 90° crosscut position.*
27. Safety is a combination of operator common sense and alertness at all times when the saw is being used.

CAUTION: Never reposition the GUARD CHUTE or anti-kickback/spreader with power ON.

WARNING: DO NOT ALLOW FAMILIARITY (GAINED FROM FREQUENT USE OF YOUR SAW) TO BECOME COMMONPLACE' ALWAYS REMEMBER THAT A CARELESS FRACTION OF A SECOND IS SUFFICIENT TO INFLICT SEVERE INJURY.

trouble shooting

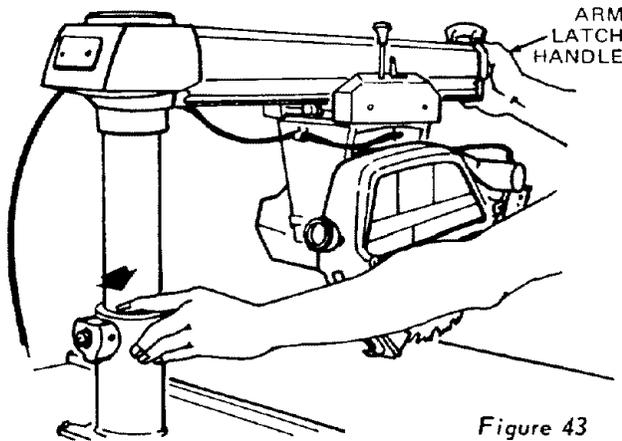
TROUBLE SHOOTING

Even though the finest materials and precision workmanship have been incorporated into your Craftsman saw, it is reasonable to expect some wear after long periods of use. Adjustment facilities have been built into the saw to compensate for this wear. Looseness due to wear, rough handling, or improper adjustments will usually be indicated by reduced accuracy or the inability of the saw to perform as intended. The usual operating troubles are listed in the following paragraphs, with the necessary corrections described and illustrated.

1. LOOSENESS OF COLUMN TUBE IN COLUMN SUPPORT – ELEVATION CRANK OPERATES ROUGHLY, OR CHATTERS WHEN ROTATED

When this condition exists, square crosscuts are likely to be difficult to make, and repeated cuts inaccurate. Adjust the column tube key as follows:

a. Checking for Looseness of Column Tube in Column Support (Figure 43).



- (1) Tighten the arm-latch handle.
- (2) Grasp the arm-latch handle with one hand and hold a finger of the other hand at the parting line between the column tube and column support.
- (3) Apply gentle side force to the radial arm in opposing directions. Any looseness between column and column support (indicated by arrow in figure 43) can be felt with finger.
- (4) If looseness can be felt, perform the following operations:

NOTE: Before attempting to adjust the column tube key, the function of this adjustment should be understood. Figure 44 shows a sectional view through the column tube support (looking downward) at the column tube key location. By loosening the left-hand setscrew and tightening the right-hand setscrew the column tube key will be forced tighter into the column tube keyway. Conversely, loosening the right-hand setscrew and tightening the left-hand setscrew will retract the column key

out of the column tube keyway. The setscrew in the outer end of the column tube key must be loosened while adjustment is being made, and tightened with medium firmness after the adjustment has been completed. This screw applies pressure on the nylon friction plug, and provides smoother elevation movement of the column tube . . . and should be tightened to provide maximum smoothness of operation. References to right- and left-hand positions are as indicated in the illustration.

b. Adjusting Column Tube Key (Figure 44)

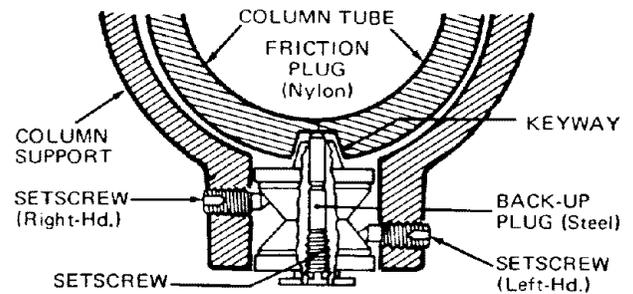


Figure 44

- (1) Loosen the setscrew located in the center of the column tube key (figure 44).
- (2) Loosen the left-hand setscrew 1/4 turn.
- (3) Tighten the right-hand setscrew.
- (4) Tighten the left-hand setscrew.
- (5) Rotate the elevation crank to raise and lower the radial arm. If too tight, loosen the right-hand setscrew slightly, and check again for smooth operation. When correct, tighten the left-hand setscrew.
- (6) Tighten the setscrew located in the center of the column tube key until smoothest operation is obtained.

2. BLADE DOES NOT MAKE SQUARE CUTS, AND ACCURATE REPEAT CUTS CANNOT BE MADE

If this condition exists the trouble might be due to any one, or a combination of, the following conditions:

a. Looseness Between Column Tube and Column Support.

Adjust as described in preceding paragraph "1", a and b.

b. Crosscut Travel Not Properly Adjusted.

Refer to "ALIGNMENT INSTRUCTIONS", step "4. Squaring the Crosscut Travel", preceding. If crosscut travel cannot be adjusted as described, refer to paragraph "i", following.

c. Table Supports Not Properly Adjusted.

Correct adjustment of table supports can be checked with satisfactory accuracy, without removing the table boards, by checking at the various positions on

trouble shooting

the top surface of the table, as described under "ALIGNMENT INSTRUCTIONS", step "2. Adjusting the Table Supports Parallel to the Radial Arm".

d. Saw Blade Not Square With Table.

Adjust as described in paragraph "j", following.

e. Bearings Loose on Tracks.

Adjust carriage bearings as described in paragraph "k", following.

f. Yoke Does Not Index Properly.

Check for proper yoke indexing by noting whether the swivel latch pin fits into its detents properly. If swivel latch-pin housing screws (located under left-hand carriage cover) are loose, readjust blade for heel as described in "3. Blade Heels to the Right or Left", following.

g. Yoke Clamp Does Not Tighten the Yoke When in Full Rearward Position.

Refer to paragraph "l", following.

h. Improper Indexing of Radial Arm for Miter Cuts.

Refer to paragraph "Precision Indexing", in the Operating Controls section.

i. Adjusting the Arm Latch to Correct Crosscut Travel Maladjustment (Figures 45 and 46).

In some remote cases, due to rough handling, etc., the crosscut travel cannot be squared by the usual method. (Refer to step "4. Squaring the Crosscut Travel" under "ALIGNMENT INSTRUCTIONS".) If this condition is encountered, it will be necessary to adjust the arm latch as follows :

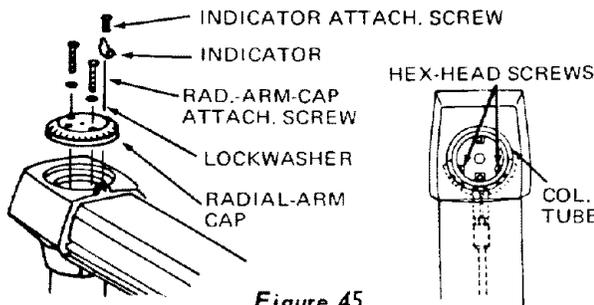


Figure 45

- (1) Remove the indicator attaching screw and radial-arm indicator. (See figure 45.)
- (2) Remove two 1/4-28x1-inch screws to free the radial-arm cap, and lift out the cap.
- (3) Rotate the arm-latch handle (figure 46) one-quarter turn counterclockwise, but do not pull the lever out.
- (4) Loosen (do not remove) two 3/8-16x3/4-inch hex-head screws (figure 45) located inside the column tube.
- (5) Move radial arm slightly in the proper direction to make a saw tooth (A, figure 46) follow the edge of a square, when the carriage is traveled back and forth along the radial arm.

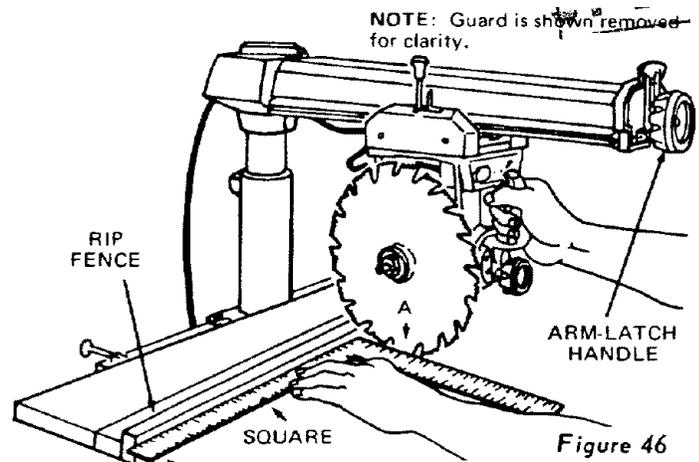


Figure 46

- (6) Retighten the hex-head screws inside of the radial arm, then tighten the arm-latch handle.
- (7) Recheck travel of blade tooth A with the square (figure 46), to make sure that tightening the screws did not affect the adjustment.
- (8) After the crosscut has been accurately squared, reinstall the radial-arm cap with the two 1/4-28x1-inch screws and 1/4-inch lockwashers. Reinstall the radial-arm indicator with its attaching screw tight.
- (9) Set the radial-arm scale to 0°, and tighten the attaching screws securely.

j. Squaring the Saw Blade to the Table (Figs. 47, 48).

- (1) Remove the guard.
- (2) Place a framing square on the table with the short leg against the saw blade as shown in figure 47. Do not allow the square to rest against a "set-out" tooth; it must rest flat against the blade side.

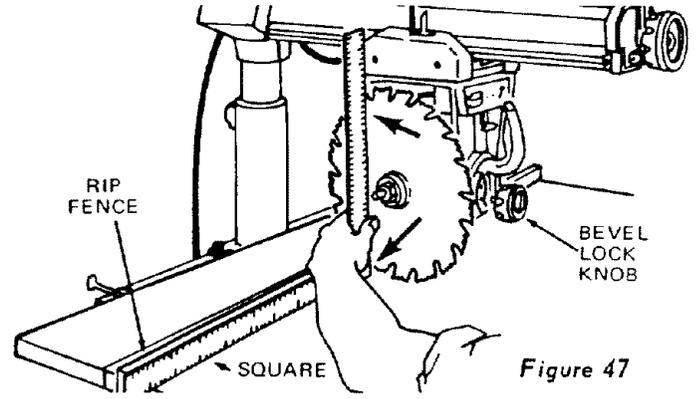
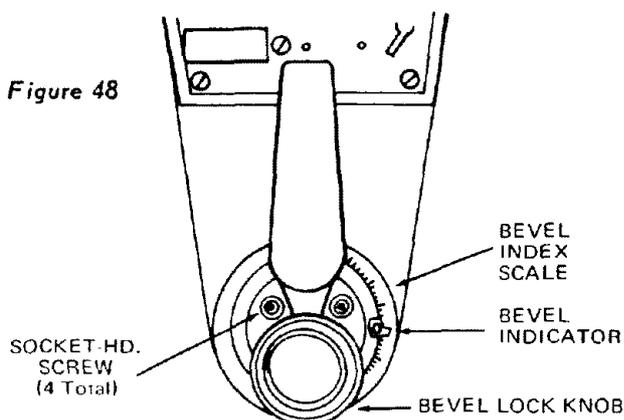


Figure 47

- (3) If the saw blade is square with the table top, the square will contact the blade at the points shown by arrows in figure 47. If the square does not touch the saw blade as shown (with square leg held firm against the table top), perform the following adjustments:
 - (a) Remove (by unscrewing) the bevel lock knob (figure 47) to fully expose the four socket-head screws behind it.

Figure 48



(b) Using a 1/4-inch hex-L wrench, slightly loosen the four socket-head screws (figure 48).

(c) Tilt the motor until the saw blade is square with the table top as shown in figure 47. Then, while holding the square firmly against the saw blade and table top, apply moderate force against the lower part of the saw blade with your thumb, until approximately 1/32-inch clearance exists between the square and the lower edge of the blade. This is to compensate for the possible slight shifting of the motor while the socket-head screws are being tightened.

(d) Tighten the four socket-head screws and replace the bevel lock knob (figure 48). It may be necessary to perform several trial operations before the saw blade remains perfectly square with the table, after tightening the four screws.

(4) After completing this adjustment, set the bevel indicator to zero.

k. Adjusting Carriage Bearings (Figs. 49 through 52).

To test for looseness between the carriage bearings and the tracks on the radial arm, lock the yoke-clamp handle (figure 49), grasp the motor and carriage assembly firmly with both hands, and apply a firm rocking motion. If looseness exists, perform the following steps :

NOTE: Adjustment is made on *left-hand side, only*.

- (1) Remove left-hand carriage cover (figure 50).
- (2) Loosen the two nuts (figure 51) just enough to permit the two eccentric screws to turn. (See figure 52.)
- (3) Rotate one of the eccentric screws a partial turn (left or right) as required to take up looseness. Hold the head of the eccentric screw (figure 51) in the position established by this method and tighten the nut. Repeat this procedure for the other eccentric screw. Correct adjustment exists when there is no play between the carriage and the radial arm tracks, but the carriage moves back and forth freely.
- (4) Reinstall the left-hand carriage cover (figure 50).

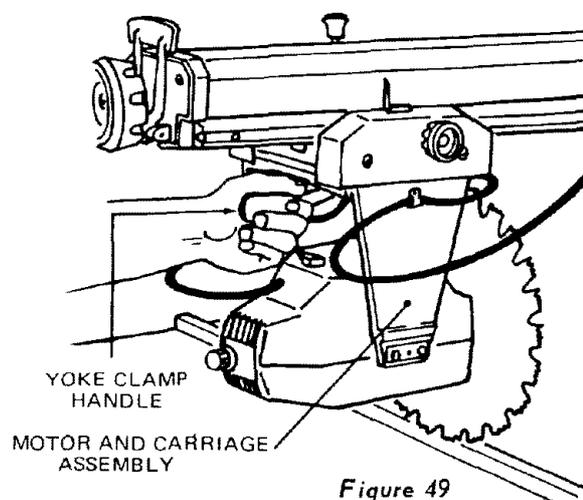


Figure 49

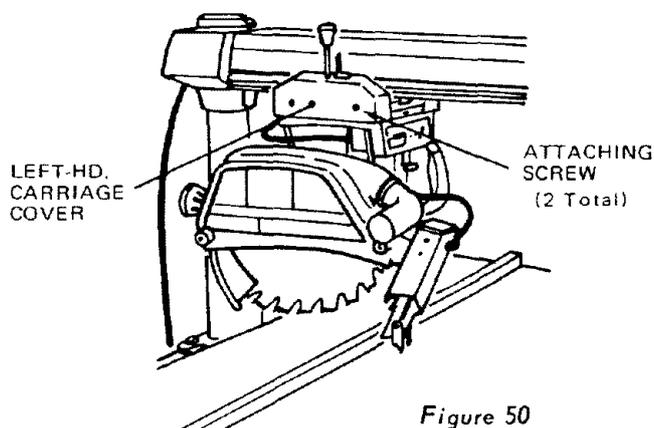


Figure 50

Figure 51

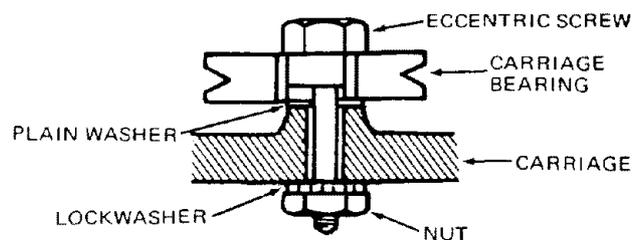
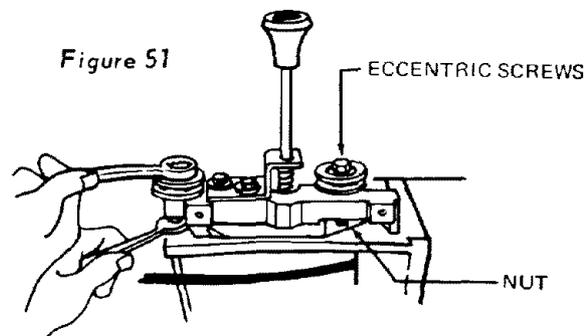


Figure 52

trouble shooting

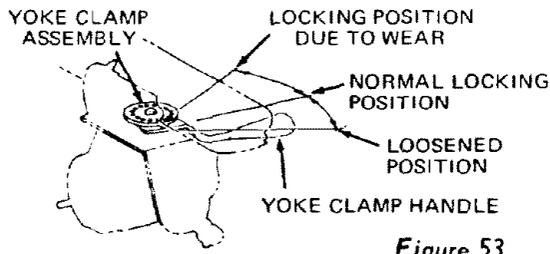


Figure 53

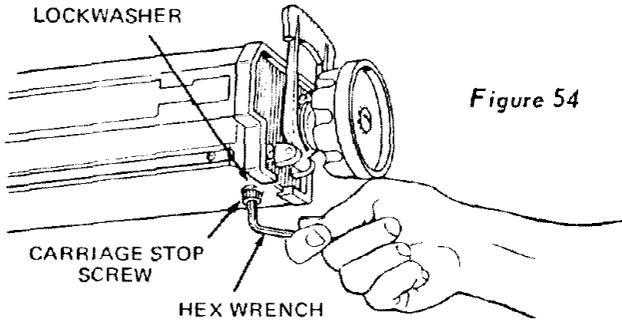


Figure 54

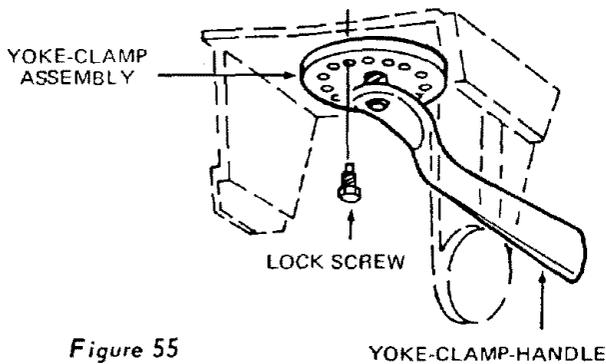


Figure 55

YOKE-CLAMP-HANDLE

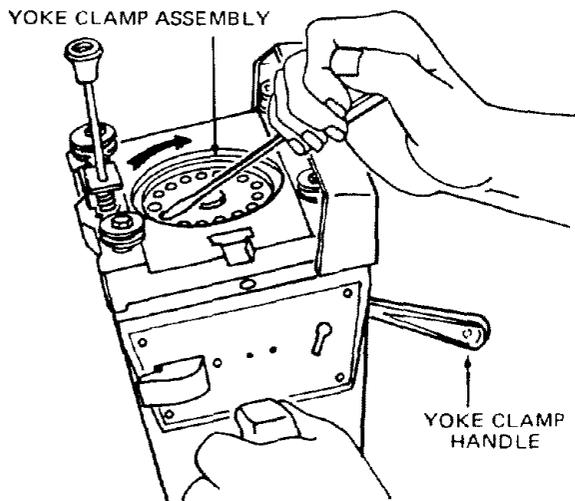


Figure 56

I. Yoke Clamp Handle Adjustment (Figures 53 – 56).

The normal locking position of the yoke-clamp handle (figure 53) is approximately midway between the two sides of the yoke. When sufficient wear has occurred to permit the handle to move considerably to the rear, or to strike the yoke before locking, the handle may be adjusted as follows:

- (1) Loosen the yoke-clamp handle.
- (2) Remove the carriage stop screw and lockwasher (figure 54) with the 1/4-inch hex-L wrench.
- (3) Grasp the motor and carriage assembly and, holding it parallel to the radial arm until all bearing rollers are free of their tracks, move it carefully off the end of the arm.
- (4) Rest the motor and carriage assembly on the saw table and remove the lock screw (figure 55).
- (5) Using a screwdriver, rotate the yoke clamp assembly (figure 56) clockwise until the next hole will line up with the lock screw. (See figure 55.) Usually, rotating the yoke clamp assembly one hole will correct this adjustment. However, in some extreme cases it may be necessary to rotate it two holes or more.
- (6) Align, install and tighten the lock screw. (See figure 55.)
- (7) Hold the motor and carriage assembly parallel to the radial arm and start the rear bearings onto the tracks. Continue to hold the assembly parallel to the tracks until the forward bearings are on the tracks.
- (8) Slide the carriage rearward on the radial arm and reinstall the carriage stop screw and lockwasher (figure 54).

3. BLADE HEELS TO THE RIGHT OR LEFT

A blade is said to "heel" when it is out of alignment with the direction in which it is forced to travel. Figure 57 shows a saw blade heeling to the right. The result of even a minor degree of heeling can be detected by the tooth marks left on the side of the saw kerf (cut edge) of the board. When using a taper ground blade, even a small degree of heeling will cause the wood to smoke because of the frictional heat produced. When ripping, heeling can cause kickbacks.

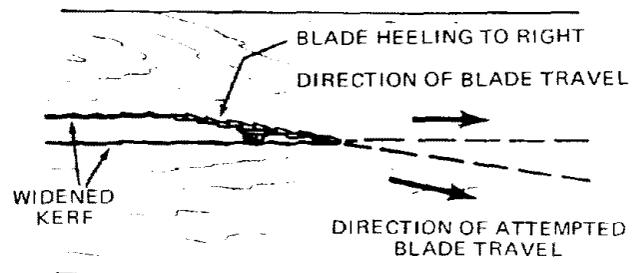


Figure 57

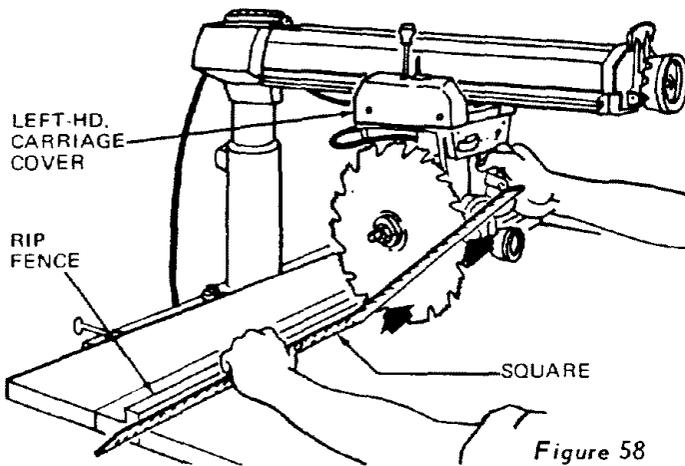


Figure 58

a. Evidence of Blade Heel

(1) Crosscutting

- (a) Heeling to the right will tend to slide the workpiece toward the right along the rip fence, as the cut is being made, and will make square cutting almost impossible.
- (b) Heeling to the left will tend to slide the board to the left along the fence.

(2) Miter Cutting – Same as for crosscutting, except to a lesser or greater degree, depending upon the angle.

(3) In-Ripping

- (a) Heeling to the right will force the workpiece against the rip fence.
- (b) Heeling to the left will force the workpiece away from the fence.

(4) Out-Ripping – The exact reverse of in-ripping.

b. Checking for Blade Heel.

- (1) Loosen the guard clamp screw and remove the guard.
- (2) Place a square against the rip fence and the saw blade, as shown in figure 58. The long leg of the square must be held firmly against both the rip fence and the table top, and the short leg must not touch any of the teeth on the saw blade.
- (3) If the square does not touch the blade at *both* of the two points shown in figure 58, a heel condition exists (either to the left or right).

c. Adjusting to Eliminate Blade Heel.

- (1) Remove the left-hand carriage cover (figure 58).
- (2) Loosen the yoke-clamp handle (figure 56).
- (3) Loosen (slightly) two hex-head screws (figure 59).
- (4) Rotate the yoke until the gap between the saw blade and the square is eliminated.
- (5) Lock the yoke with the yoke clamp handle, and tighten the two hex-head screws (figure 59).

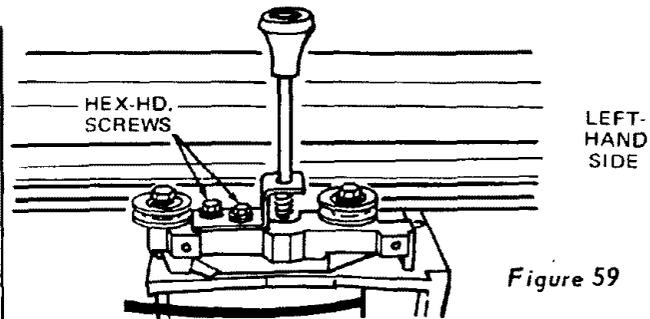


Figure 59

- (6) Recheck for heel to make sure that tightening the screws did not affect the setting.
- (7) Reinstall the left-hand carriage cover.

4. WOOD SMOKES AND MOTOR SLOWS DOWN OR STOPS, WHEN RIPPING

This can be caused by the following conditions :

a. A Dull Blade or a Warped Board.

Sharpen or replace the saw blade. Avoid the attempted use of severely warped material.

b. Crosscut Not Properly Squared.

Adjust as described under "ALIGNMENT INSTRUCTIONS", step "4. Squaring the Crosscut Travel".

c. Radial Arm Not Securely Locked in 0° Position.

Refer to "PRECISION INDEXING" in the Operating Controls section.

d. Blade Heels to the Right or Left.

Refer to paragraph "3. Blade Heels to the Right or Left", preceding.

5. BOARD BINDS, OR PULLS AWAY FROM THE FENCE, WHEN RIPPING

Refer to "Adjusting Guard Chute and Anti-Kickback and Spreader Assembly for Ripping Operations" in the Operating Controls section.

LUBRICATION

Your saw is precision built and should be kept clean and properly lubricated. Before describing the various points which may periodically require lubrication, IT IS MORE IMPORTANT TO FIRST MENTION THE VARIOUS POINTS WHICH SHOULD NOT BE LUBRICATED.

NO LUBRICATION REQUIRED

Do not lubricate the carriage ball bearings or the motor bearings. These are sealed ball bearings and require no added lubrication.

Do not lubricate between the radial arm cap and the radial arm.

trouble shooting - motor

PERIODICALLY LUBRICATE THESE POINTS

Use SAE No. 10W-30 automotive engine oil. Refer to the Parts Lists for locations, and lightly lubricate the following points:

1. The rear bearing surface of the elevation crank shaft assembly — and also the two meshed gears through which this shaft drives the elevation shaft assembly. There is an oil hole in the bracket at the rear end of the elevation crank shaft, through which the rear bearing surface can be oiled.
2. The threads of the elevation shaft assembly — and also the bottom bearing surface of this shaft where it is held by the retaining plate. Use the oil hole at the center of the radial-arm cap.
3. The bevel-latch pin.
4. The bearing surface of the swivel-latch pin in the latch-pin housing.
5. The face of the column tube and keyway (by wiping with a lightly oiled cloth) to lubricate the surfaces that bear against the key and the column support assembly.

CAUTION: Excessive oil at any location will attract airborne dust particles and sawdust.

TROUBLE SHOOTING CHART – MOTOR

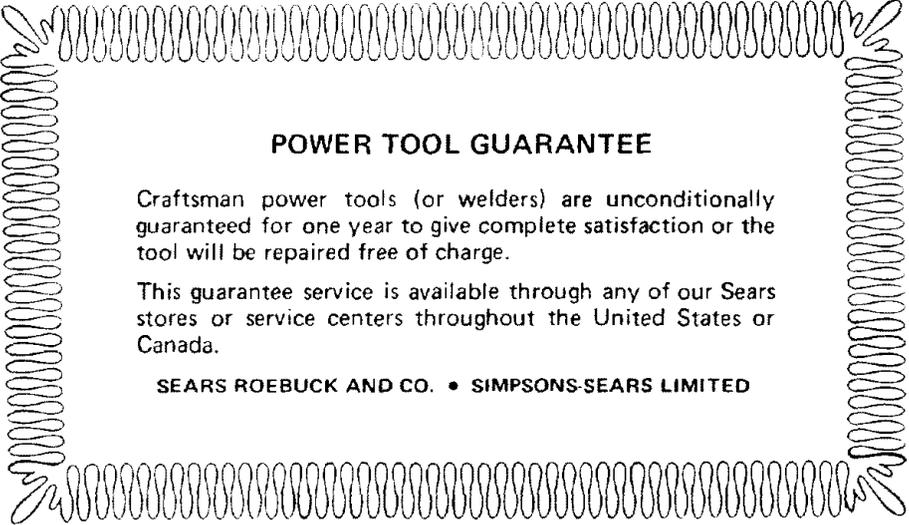
NOTE: Motors used on wood-working tools are particularly susceptible to the accumulation of sawdust and wood chips

and should be blown out or “vacuumed” frequently to prevent interference with normal motor ventilation.

| TROUBLE | PROBABLE CAUSE | REMEDY |
|--|--|--|
| Motor will not run. | <ol style="list-style-type: none"> 1. Protector open; circuit broken. 2. Low voltage. | <ol style="list-style-type: none"> 1. Reset protector by pushing on red button, located on top of motor (indicated by audible click). 2. Check power line for proper voltage. |
| Motor will not run and fuses “BLOW”. | <ol style="list-style-type: none"> 1. Short circuit in line, cord or plug. 2. Short circuit in motor or loose connections. | <ol style="list-style-type: none"> 1. Inspect line, cord and plug for damaged insulation and shorted wires. 2. Inspect all terminals in motor for loose or shorted terminals or worn insulation on wires. |
| Motor fails to develop full power. (Power output of motor decreases rapidly with decrease in voltage at motor terminals. For example: a reduction of 10% in voltage causes a reduction of 19% in maximum power output of which the motor is capable, while a reduction of 20% in voltage causes a reduction of 36% in maximum power output.) | <ol style="list-style-type: none"> 1. Power line overloaded with lights, appliances and other motors. 2. Undersize wires or circuit too long. 3. General overloading of power company’s facilities. (In many sections of the country, demand for electrical power exceeds the capacity of existing generating and distribution systems.) 4. Incorrect fuses in power line. | <ol style="list-style-type: none"> 1. Reduce the line load. 2. Increase wire sizes, or reduce length of wiring. 3. Request a voltage check from the power company. 4. Install correct fuses. |

TROUBLE SHOOTING CHART – MOTOR (Con't.)

| TROUBLE | PROBABLE CAUSE | REMEDY |
|--|--|--|
| Motor overheats. | <ol style="list-style-type: none"> 1. Motor overloaded. 2. Improper cooling. (Air circulation restricted through motor due to sawdust, etc.) | <ol style="list-style-type: none"> 1. Correct overload condition. 2. Clean out sawdust to provide normal air circulation through motor. |
| Motor starts slowly or fails to come up to full speed. | <ol style="list-style-type: none"> 1. Low Voltage -- will not trip starting switch. 2. Starting switch not operating. | <ol style="list-style-type: none"> 1. Correct low voltage condition. 2. Replace the starting switch. |
| Starting switch in motor will not operate. | <ol style="list-style-type: none"> 1. Burned switch contacts (due to extended hold-in periods caused by low line voltage, etc.) 2. Loose or broken connections in motor. 3. Shorted capacitor. | <ol style="list-style-type: none"> 1. Replace switch and check line voltage. 2. Check and repair wiring. 3. Test capacitor and replace if defective. |
| Motor stalls (resulting in blown fuses or tripped circuit breakers). | <ol style="list-style-type: none"> 1. Starting switch not operating. 2. Voltage too low to permit motor to reach operating speed. 3. Fuses or circuit breakers do not have sufficient capacity. | <ol style="list-style-type: none"> 1. Replace switch. 2. Correct the low line voltage condition. 3. Replace fuses or circuit breakers with proper capacity units. |
| Frequent opening of fuses or circuit breakers. | <ol style="list-style-type: none"> 1. Motor overloaded. 2. Fuses or circuit breakers do not have sufficient capacity. 3. Starting switch not operating (motor does not reach normal speed.) | <ol style="list-style-type: none"> 1. Reduce motor load. 2. Replace fuses or circuit breakers. 3. Replace switch. |
| Brake fails to work. | Worn brake lining. | Replace brake lining. |



POWER TOOL GUARANTEE

Craftsman power tools (or welders) are unconditionally guaranteed for one year to give complete satisfaction or the tool will be repaired free of charge.

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

SEARS ROEBUCK AND CO. • SIMPSONS-SEARS LIMITED

repair parts

CRAFTSMAN 10-INCH RADIAL SAW, MODEL NO. 113.29461

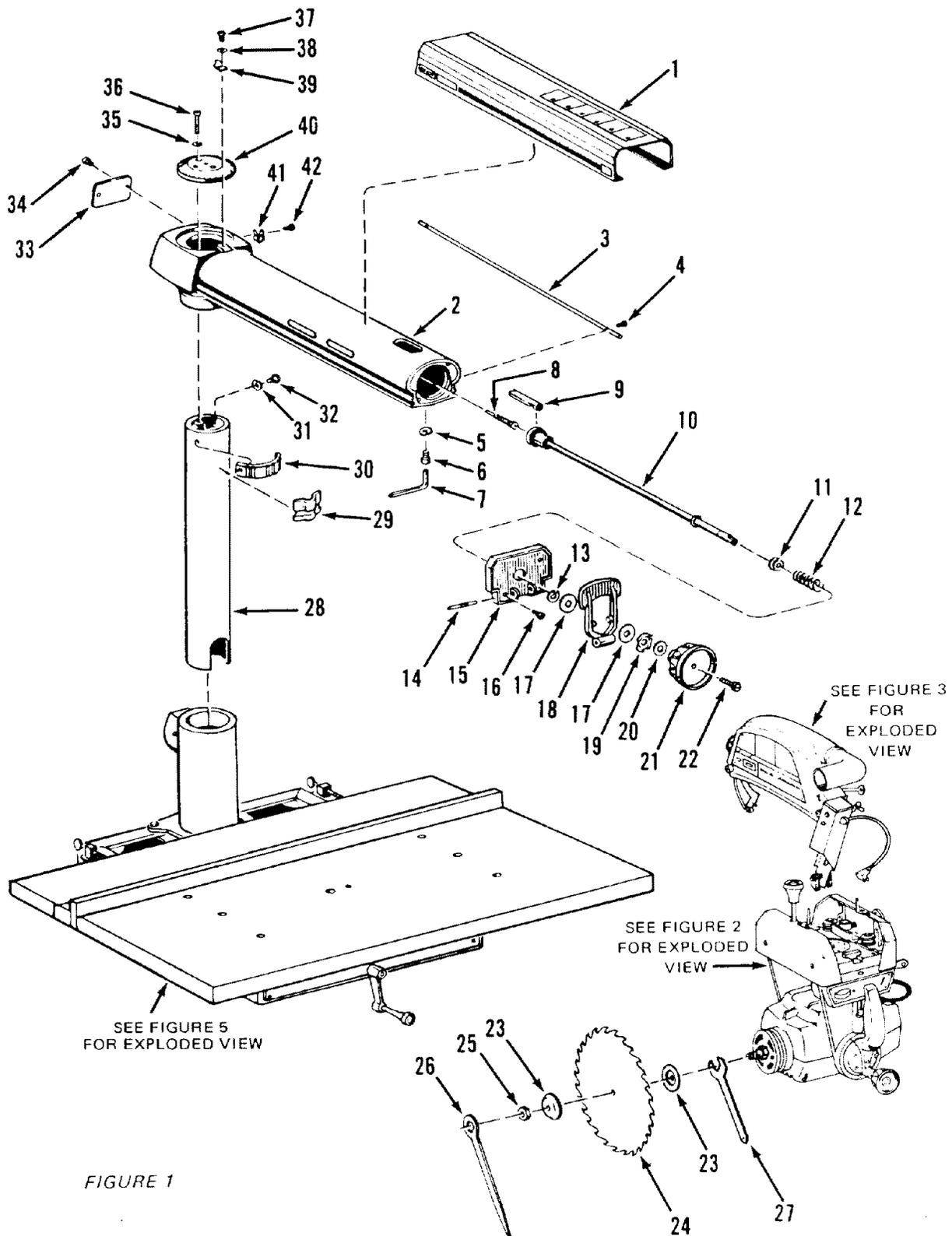


FIGURE 1

PARTS LIST

CRAFTSMAN 10-INCH RADIAL SAW, MODEL NO. 113.29461

All parts illustrated in Figures 1 through 5 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 113.29461
4. The NAME OF ITEM – 10-INCH RADIAL SAW

Always order by Part Number – not by Key Number

FIGURE 1 PARTS LIST

| Key No. | Part No. | Description |
|---------|----------|--|
| 1 | 63409 | Trim, Radial Arm |
| 2 | 37863 | Arm, Radial |
| 3 | 63127 | Track |
| 4 | 448337 | *Screw, Type 23, 10-32 x 5/8, Rd. Hd. |
| 5 | 131201 | *Lockwasher, 5/16 x .125 x .078 |
| 6 | 9421620 | *Screw, Cap, 5/16-18 x 1/2, Soc. Hd. |
| 7 | 37435 | †Wrench, Hex. "L", 1/4 |
| 8 | 30662 | Screw, Arm Lock |
| 9 | 30482 | Pin Assembly, Arm Lock |
| 10 | 37370 | Shaft Assembly, Arm Latch |
| 11 | 30489 | Washer, Spring Support |
| 12 | 30490 | Spring, Arm Latch |
| 13 | 60044 | Ring, Retaining |
| 14 | 443151 | Pin, Groove |
| 15 | 63096 | Cap, Trim |
| 16 | 448039 | *Screw, Type 23, 10-32 x 3/4, Pan Hd. |
| 17 | 60076 | Washer, .505 x 1-1/8 x 1/16 |
| 18 | 37372 | Lever, Arm Latch |
| 19 | 37373 | Washer, Spring |
| 20 | 60030 | Washer, .505 x 1 x 1/32 |
| 21 | 63410 | Knob Assembly, 3-1/4 |
| 22 | 455872 | *Screw, Mach. 1/4-20 x 1-1/4 Sems. Truss Hd. |

| Key No. | Part No. | Description |
|---------|----------|---------------------------------------|
| 23 | 30494 | Collar |
| 24 | 60175 | †Blade, Saw, 10" |
| 25 | 30495 | Nut, Shaft |
| 26 | 3540 | Wrench, Arbor |
| 27 | 63062 | Wrench, Shaft |
| 28 | 63146 | Tube Assembly, Column |
| 29 | 30661 | Shoe, Brake |
| 30 | 30479 | Latch, Arm |
| 31 | 131202 | *Lockwasher, 3/8 x .136 x .070 |
| 32 | 9415837 | *Screw, Mach. 3/8-16 x 3/4 Hex. Hd. |
| 33 | 63098 | Plate, Cover |
| 34 | 448033 | *Screw, Type 23, 10-32 x 3/8, Pan Hd. |
| 35 | 115109 | *Lockwasher, 1/4 x .109 x .062 |
| 36 | 191230 | *Screw, Mach., 1/4-28 x 1, Fil. Hd. |
| 37 | 448001 | *Screw, Type 23, 6-32 x 1/4, Pan Hd. |
| 38 | 37935 | Washer, Fibre, .140 x .250 x 1/32 |
| 39 | 30559 | Indicator |
| 40 | 37418 | Cap, Radial Arm |
| 41 | 30613 | Clamp, Cord |
| 42 | 448011 | *Screw, Type 23, 8-32 x 3/8, Pan Hd. |
| | 63492 | Owner's Manual (Not Illus.) |

*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.

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.

repair parts

CRAFTSMAN 10-INCH RADIAL SAW, MODEL NO. 113.29461

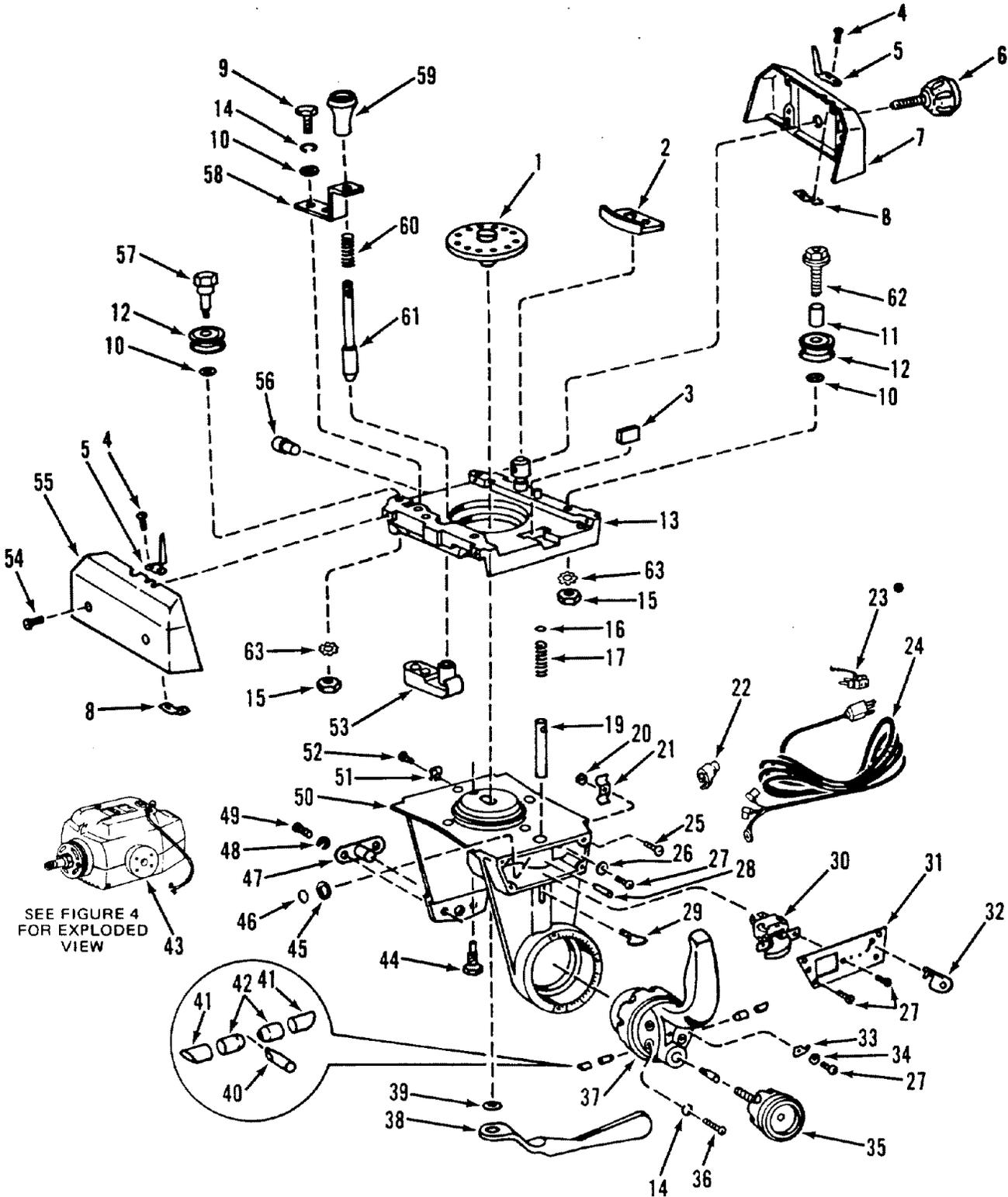


FIGURE 2

CRAFTSMAN 10-INCH RADIAL SAW, MODEL NO. 113.29461

FIGURE 2 PARTS LIST

| Key No. | Part No. | Description |
|---------|----------|---|
| 1 | 30566 | Yoke, Clamp Assembly |
| 2 | 63120 | Shoe, Carriage Lock |
| 3 | 30567 | Bumper, No. 2 |
| 4 | 436664 | *Screw, Mach., 6-32 x 7/16, Pan Hd. |
| 5 | 63215 | Indicator, Rip Scale |
| 6 | 63415 | Knob, Carriage Lock, 1-1/2 |
| 7 | 63416 | Cover, R. H., Carriage |
| 8 | 30530 | Nut, Twin |
| 9 | 9415819 | *Screw, Mach., 5/16-18 x 1-1/2, Hex Hd. |
| 10 | 60040 | *Washer, .328 x 3/4 x 1/16 |
| 11 | 37388 | Sleeve, Bearing |
| 12 | 63117 | Bearing, Carriage |
| 13 | 63148 | Carriage Assembly |
| 14 | 131201 | *Lockwasher, 5/16 x .125 x .078 |
| 15 | 124824 | *Nut, Hex., 5/16-18 x 1/2 x 3/16 |
| 16 | 30547 | Disk |
| 17 | 30548 | Spring, Latch Pin |
| 19 | 30689 | Pin, Bevel Latch |
| 20 | 115999 | *Nut, Hex., 10-32 x 3/8 x 1/8 |
| 21 | 63418 | Clamp, Cord |
| 22 | 63467 | Cap, Insulator |
| 23 | 37568 | •†Adaptor, Plug |
| 24 | 63419 | Cord, with Plug |
| 25 | 441377 | *Screw, Mach., 10-32 x 3/4 Pan Hd. |
| 26 | 115543 | Washer, Lock |
| 27 | 448001 | *Screw, Type 23, 6-32 x 1/4, Pan Hd. |
| 28 | 453676 | Pin, Roll 1/8 x 1 |
| 29 | 30693 | Handle, Latch Pin |
| 30 | 62299 | Switch (Off-On) |
| 31 | 63304 | Lock Assembly, Switch |
| 32 | 37861 | Key, Safety Lock |
| 33 | 63423 | Indicator, Bevel |

| Key No. | Part No. | Description |
|---------|----------|---|
| 34 | 37935 | Washer, Fibre, .140 x .250 x 1/32 |
| 35 | 63420 | Knob, 2-1/4, Bevel Index |
| 36 | 9421626 | *Screw, Cap 5/16-18 x 1-1/2, Socket Hd. |
| 37 | 63424 | Handle, Bevel Index |
| 38 | 37403 | Handle, Yoke |
| 39 | 37816 | Washer, .630 x 1-1/8 x .093 |
| 40 | 30664 | Pad, Pressure |
| 41 | 30665 | Shoe, Index Handle Brake |
| 42 | 30663 | Expander |
| 43 | — | Motor (See Fig. 5) |
| 44 | 30558 | Screw, Lock |
| 45 | 60055 | Washer, Fibre, .380 x 3/4 x 1/16 |
| 46 | 37859 | Ring, Hog |
| 47 | 63468 | Support Assembly, Motor |
| 48 | 115109 | *Lockwasher, 1/4 x .109 x .062 |
| 49 | 60021 | *Screw, Mach., 1/4-20 x 7/16, Hex. Hd. |
| 50 | 63421 | Yoke Assembly |
| 51 | 30613 | Clamp, Cord |
| 52 | 448011 | *Screw, Type 23, 8-32 x 3/8, Pan Hd. |
| 53 | 63118 | Housing, Latch Pin |
| 54 | 436751 | *Screw, Type 23, 10-32 x 5/8, Pan Hd. |
| 55 | 63417 | Cover, L.H., Carriage |
| 56 | 30565 | Bumper, Carriage |
| 57 | 37387 | Screw, Eccentric |
| 58 | 63119 | Retainer, Spring |
| 59 | 63422 | Knob Assembly |
| 60 | 30521 | Spring, Swivel Latch |
| 61 | 37494 | Pin, Swivel Latch |
| 62 | 60259 | Screw, Mach. 5/16-18 x 1-1/2 Hex. Wash. Hd. |
| 63 | 138540 | Lockwasher, Ext. Tooth, 5/16 x 19/32 x 1/32 |

*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.

repair parts

CRAFTSMAN 10-INCH RADIAL SAW, MODEL NO. 113.29461

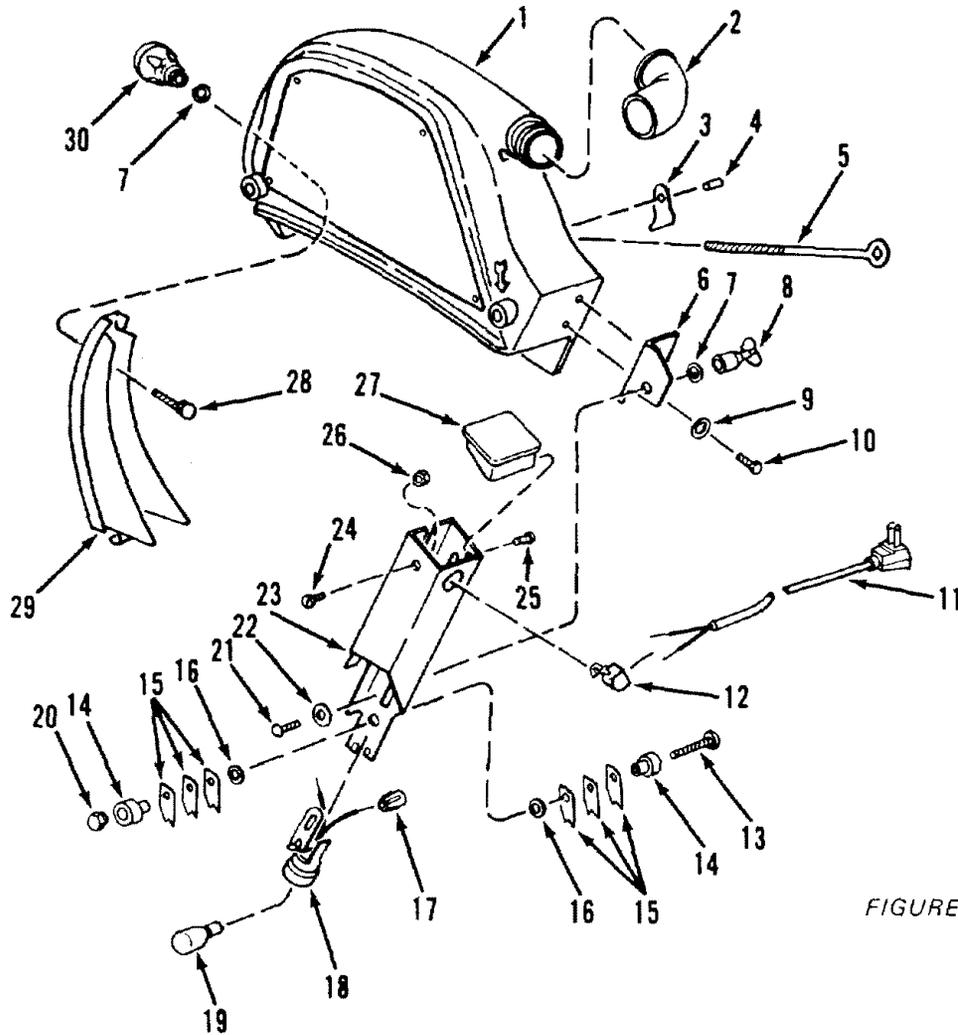


FIGURE 3

FIGURE 3 PARTS LIST

| Key No. | Part No. | Description |
|---------|----------|--|
| 1 | 63411 | Guard Assembly |
| 2 | 63258 | Elbow, Discharge |
| 3 | 63337 | Shoe, Guard |
| 4 | 455488 | Pin, Roll, 1/4 x 5/8 |
| 5 | 63039 | Screw, Guard Clamp |
| 6 | 63338 | Bracket, Housing |
| 7 | 9414920 | *Washer, 17/64 x 5/8 x 1/16 |
| 8 | 63339 | Nut, Wing |
| 9 | 131201 | *Lockwasher, 5/16 x .125 x .078 |
| 10 | 60078 | *Screw, Mach., 5/16-18 x 1/2, Hex. Hd. |
| 11 | 63425 | Cord with Plug |
| 12 | 37875 | Relief, Strain |
| 13 | 60243 | *Screw, Mach., 10-32 x 1-1/8, Pan Hd. |
| 14 | 63341 | Bushing, Kickback Pawl |
| 15 | 63271 | Pawl, Anti-Kickback |
| 16 | 60041 | *Washer, .198 x 9/16 x 1/32 |

| Key No. | Part No. | Description |
|---------|----------|---|
| 17 | 71046 | *Connector, Wire |
| 18 | 63426 | Socket, Light |
| 19 | 69013 | Bulb, Light, 115/125V, 25 Watt, Double Contact, Bayonet Base, Appliance |
| 20 | 60012 | Nut, Lock, 10-32 |
| 21 | 111137 | *Bolt, Carriage, 1/4-20 x 1/2 Rd. Hd. |
| 22 | 60062 | *Washer, Plain .380 x 3/4 x 3/32 |
| 23 | 63427 | Housing, Light |
| 24 | 9404365 | *Screw, Mach., 8-32 x 5/16, Pan Hd. |
| 25 | 9404351 | *Screw, Type 23, 6-32 x 1/4, Pan Hd. |
| 26 | 60029 | Nut, Lock, 8-32 |
| 27 | 63428 | Cap, Light Housing |
| 28 | 109091 | *Bolt, Carriage, 1/4-20 x 1-1/4, Rd. Hd. |
| 29 | 63345 | Chute, Guard |
| 30 | 63344 | Knob Assembly, 1-1/2 |

*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.

repair parts

CRAFTSMAN 10-INCH RADIAL SAW, MODEL NO. 113.29461

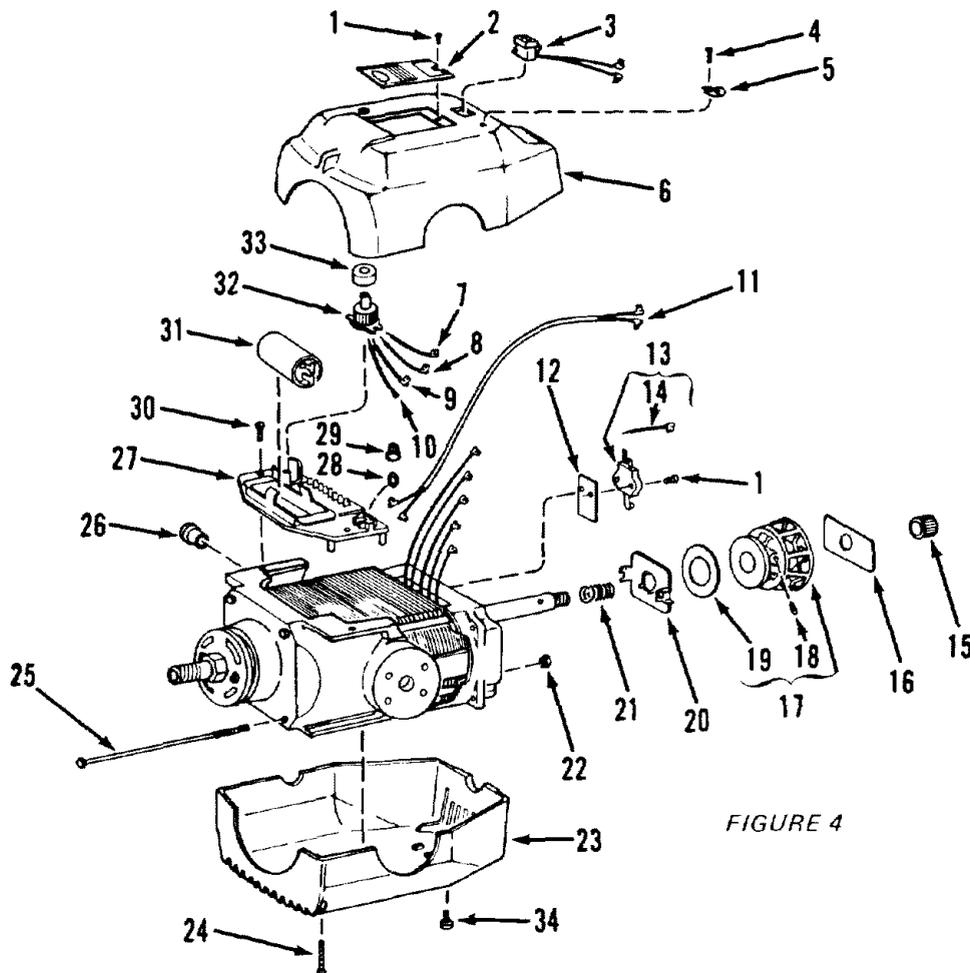


FIGURE 4

FIGURE 4 PARTS LIST

| Key No. | Part No. | Description |
|---------|----------|---|
| — | 63490 | Motor (Complete) (Domestic) |
| — | 63491 | ■Motor (Complete) (Canada) |
| 1 | 448003 | *Screw, Type 23, 6-32 x 3/8 Pan Hd. |
| 2 | 63437 | Nameplate W/Insulation (Domestic) |
| 2 | 63489 | ■Nameplate W/Insulation (Canada) |
| 3 | 63438 | Receptacle |
| 4 | 448011 | *Screw, Type 23, 8-32 x 3/8 Pan Hd. |
| 5 | 30613 | Clamp Cord |
| 6 | 63439 | Housing, Top (Domestic) |
| 6 | 63487 | ■Housing, Top (Canada) |
| 7 | 63440 | Lead Assy., Brown |
| 8 | 63441 | Lead Assy., Black |
| 9 | 63443 | Lead Assy., Red |
| 10 | 63442 | Lead, Blue |
| 11 | 63444 | Cord Assembly |
| 12 | 63445 | Insulation, Switch |
| 13 | 63446 | Switch Assy., Starting (Including Key No. 14) |
| 14 | 63447 | Lead Assy., Red |
| 15 | 30582 | Cap, Shaft |
| 16 | 63448 | Plate, Instructions |

| Key No. | Part No. | Description |
|---------|----------|--|
| 17 | 63449 | Fan Assembly (Includes Key Nos. 18 and 19) |
| 18 | 140879 | Set Screw |
| 19 | 63450 | Lining, Brake |
| 20 | 63451 | Plate, Brake |
| 21 | 63452 | Spring, Brake |
| 22 | 115999 | *Nut, Hex., 10-32 x 1/8 |
| 23 | 63453 | Housing, Bottom (Domestic) |
| 23 | 63488 | ■Housing, Bottom (Canada) |
| 24 | 448007 | *Screw, Type 23, 6-32 x 5/8 Pan Hd. |
| 25 | 60248 | Screw, Stator |
| 26 | 63469 | Bushing, Rubber |
| 27 | 63454 | Panel Assembly |
| 28 | 37859 | Ring-Hog |
| 29 | 30573 | *Nut, Wire |
| 30 | 448019 | *Screw, Type 23, 8-32 x 7/8 Pan Hd. |
| 31 | 63455 | Capacitor |
| 32 | 37408 | Protector, Manual Thermal |
| 33 | 63456 | Washer, Dust |
| 34 | 133477 | Screw, Mach., 8-32 x 1/4 Flat Hd. |
| — | 63486 | △Plug 240V (Not shown) |

*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.

△Supplied Detached Canada Only.

■Canada Only.

repair parts

CRAFTSMAN 10-INCH RADIAL SAW, MODEL NO. 113.29461

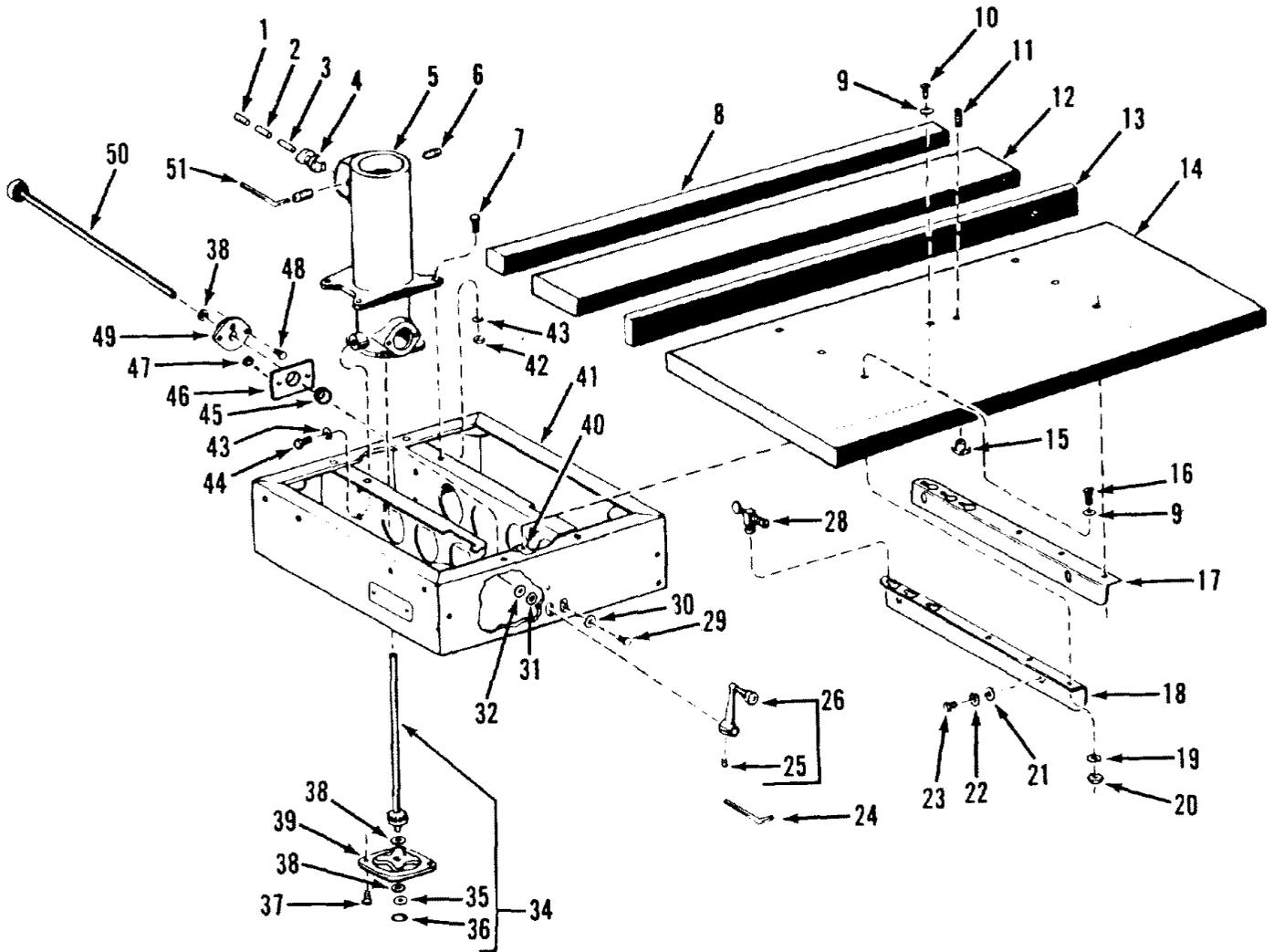


FIGURE 5

CRAFTSMAN 10-INCH RADIAL SAW, MODEL NO. 113.29461

FIGURE 5 PARTS LIST

| Key No. | Part No. | Description |
|---------|----------|--|
| 1 | 102718 | Screw, Set, 5/16-18 x 1/2, Slotted, Cup Pt. |
| 2 | 63078 | Plug, Back-Up (Steel) |
| 3 | 63077 | Plug, Friction (Nylon) |
| 4 | 63079 | Key, Column Tube |
| 5 | 63431 | Support, Column |
| 6 | 139416 | Screw, Set, 3/8-16 x 5/8, Socket Hd., Cone Pt. |
| 7 | 9415839 | *Screw, Mach., 3/8-16 x 1-1/8, Hex. Hd. |
| 8 | 63429 | Spacer Board, Table |
| 9 | 60128 | *Washer, 17/64 x 5/8 x 1/32 |
| 10 | 60057 | *Screw, Mach., 1/4-20 x 1-1/4, Pan Hd. |
| 11 | 102707 | Screw, Set, 1/4-20 x 1/2, Slotted, Cup Pt. |
| 12 | 63430 | Table, Rear |
| 13 | 63432 | Fence, Rip |
| 14 | 63433 | Table, Front |
| 15 | 37384 | T-Nut |
| 16 | 60056 | *Screw, Mach., 1/4-20 x 1, Pan Hd. |
| 17 | 37880 | Channel, Table Mtg., Right-Hand |
| 18 | 37879 | Channel, Table Mtg., Left-Hand |
| 19 | 115109 | *Lockwasher, 1/4 x .109 x .062 |
| 20 | 115120 | *Nut, Hex., 1/4-20 x 7/16 x 3/16 |
| 21 | 60013 | *Washer, 11/32 x 7/8 x 1/16 |
| 22 | 131201 | *Lockwasher, 5/16 x .125 x .078 |
| 23 | 60078 | *Screw, Mach., 5/16-18 x 1/2, Hex. Hd. |
| 24 | 30505 | †Wrench, Hex. "L", 1/8 |
| 25 | 102570 | Screw, Set, 1/4-20 x 3/8, Socket Hd., Cup Pt. |

| Key No. | Part No. | Description |
|---------|----------|--|
| 26 | 63434 | Crank Assembly (Includes Key No. 25) |
| 28 | 37862 | Clamp, Table |
| 29 | 443507 | *Screw, Mach., 1/4-20 x 1/2, Pan Hd. |
| 30 | 60143 | *Washer, .266 x .562 x 3/64 |
| 31 | 60080 | Washer, .515 x 7/8 x 1/32 |
| 32 | 30604 | Washer, Oil Sling |
| 34 | 63404 | Shaft Assembly, Elevation (Includes Key No's. 35 & 36) |
| 35 | 63405 | Washer, Keyed |
| 36 | 60201 | Ring, Retaining |
| 37 | 423561 | *Screw, Mach., 5/16-18 x 7/8 Sems., Hex. Hd. |
| 38 | 30509 | Washer, End Play (as required) |
| 39 | 37428 | Plate, Retaining |
| 40 | 37530 | Nut, "U" Clip, 1/4-20 |
| 41 | 37383 | Base Assembly |
| 42 | 118615 | *Nut, Hex., 3/8-16 x 9/16 x 21/64 |
| 43 | 131202 | *Lockwasher, 3/8 x .141 x .094 |
| 44 | 9415836 | *Screw, Mach., 3/8-16 x 5/8, Hex. Hd. |
| 45 | 63435 | Bushing |
| 46 | 63436 | Bracket, Bearing |
| 47 | 60246 | Nut, Lock |
| 48 | 448649 | *Screw, Type 23, 1/4-20 x 3/4, Hex. Hd. |
| 49 | 30510 | Bracket, Elevation Shaft Bearing |
| 50 | 30508 | Shaft Assembly, Elevation Crank |
| 51 | 37911 | †Wrench, Hex. "L", 3/16 |

*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.

Sears

**owners
manual**

**MODEL NO.
113.29461**

**Sears
SERVICE
is at
YOUR
SERVICE
wherever YOU
live or move
in the U.S.A.**

How to ORDER Repair

The Model Number will be found on a plate attached to your saw, at the left-hand side of the base. Always mention the Model Number when requesting service or repair parts for your 10-INCH RADIAL SAW.

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 | 2. The PART DESCRIPTION |
| 3. The MODEL NUMBER 113.29461 | 4. The NAME OF ITEM – 10-INCH RADIAL SAW |

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

SEARS, ROEBUCK AND CO., Chicago, Ill. 60607 U.S.A.
and SIMPSONS-SEARS LIMITED, Toronto