

# ASSEMBLY, OPERATING INSTRUCTIONS AND PARTS LIST FOR CRAFTSMAN ACCRA-ARM 10 INCH RADIAL SAW



## MODEL NUMBER 113.29419

The Model Number will be found on a plate attached to your saw, at the left side of the base. Always mention the Model Number in all correspondence regarding the CRAFTSMAN ACCRA-ARM RADIAL SAW or when ordering repair parts.

## HOW TO ORDER REPAIR PARTS

All parts listed herein may be ordered through SEARS, ROEBUCK AND CO. or SIMPSONS-SEARS LIMITED. When ordering parts by mail from the mail order house which serves the territory in which you live, 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 NAME
3. The MODEL NUMBER 113.29419
4. The NAME of item—RADIAL SAW

## COAST TO COAST NATION-WIDE SERVICE FROM SEARS FOR YOUR CRAFTSMAN ACCRA-ARM RADIAL SAW

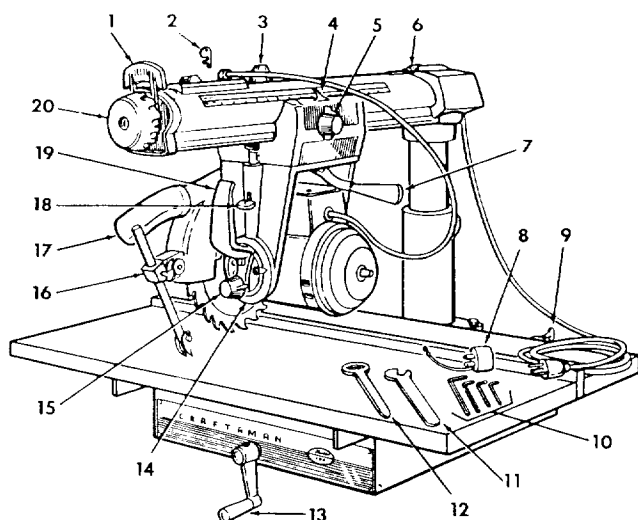


SEARS, ROEBUCK AND CO. and SIMPSONS-SEARS LIMITED in Canada back up your investment with quick, expert mechanical service and genuine CRAFTSMAN replacement parts.

If and when you need repairs or service, call on us to protect your investment in this fine piece of equipment.

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

# ASSEMBLING AND ADJUSTING YOUR SAW



- |                                       |                                     |
|---------------------------------------|-------------------------------------|
| 1. Arm Latch Lever                    | 12. Arbor Wrench                    |
| 2. Switch Key                         | 13. Elevation Crank                 |
| 3. Swivel Latch Pin Knob              | 14. Bevel Index Scale and Indicator |
| 4. Rip Scale Indicator                | 15. Bevel Lock Knob                 |
| 5. Carriage Lock Knob                 | 16. Anti Kick Back Pawl Assembly    |
| 6. Radial Arm Indicator               | 17. Discharge Elbow                 |
| 7. Yoke Clamp Handle                  | 18. Latch Pin Handle                |
| 8. Adapter Plug<br>(Except in Canada) | 19. Bevel Index Handle              |
| 9. Table Clamp                        | 20. Arm Latch Handle                |
| 10. Hex "L" Wrenches                  |                                     |
| 11. Shaft Wrench                      |                                     |

NOTE: WHEN ORDERING REPAIR PARTS REFER TO PARTS LIST FOR CORRECT PART NUMBER.

Figure 1

protection against overloads or short circuits in the lines leading to the motor. The motor should not be operated on a load which causes the protector to open the line frequently.

For circuit protection use a "Fustat" or "Fusetron" fuse — 15 ampere fuse for 115 volt operation and 7½ ampere fuse for 230 volt operation.

**"IMPORTANT"** The following wire sizes are recommended for connecting the motor to a power source for **TROUBLE FREE OPERATION**.

Length of Conductor	Wire Size Required (American Wire Gauge No.)
<b>For Model 113.29419 (115 Volt)</b>	
50 feet or less	No. 12
100 feet or less	No. 10
100 feet to 150 feet	No. 8
150 feet to 200 feet	No. 6
200 feet to 400 feet	No. 4

<b>For Model 113.29419 (230 Volt)</b>	
50 feet or less	No. 14
100 feet or less	No. 12
100 feet to 150 feet	No. 10
150 feet to 200 feet	No. 8
200 feet to 400 feet	No. 6

For circuits of greater length the wire size must be increased proportionally.

## CONNECTING THE MOTOR TO THE POWER SUPPLY

### Motor Specifications

Model 113.29419 (115 volts)

115 volt, 10 amps, 3450 rpm, 60 cycle, alternating current (A.C. only) single phase, non-reversible. Rotation: clockwise viewing saw blade end of motor shaft.

Model 113.29419 (230 volts)

230 volt, 5 amps, 3450 rpm, 60 cycle, alternating current (A.C. only) single phase, non-reversible. Rotation: clockwise viewing saw blade end of motor shaft.

For 115 volt operation see Figure 2 for connecting plug and cord from saw into 115 volt receptacle.

For 230 volt operation see Figure 3 for connecting plug and cord from saw into 230 volt receptacle.

### Safety Precaution

The saw motor is equipped with a manual reset, thermal overload protector. If during operation this protector opens the line, immediately press the switch "Off". The protector can be closed again after the motor has cooled by firmly pushing the red button on the capacitor cover until the protector snaps into the running position. Do not tap or strike the reset button. This protector is not intended to take the place of a fuse as the protector will not provide

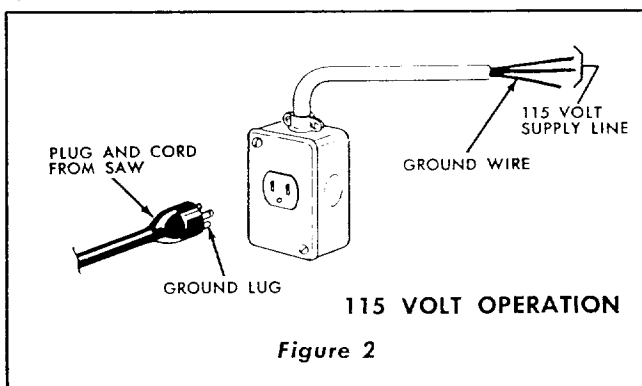


Figure 2

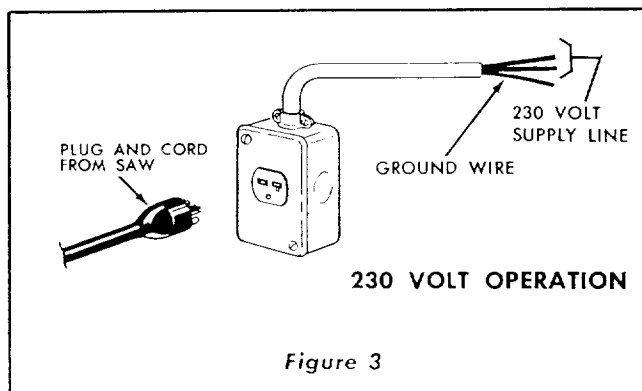


Figure 3

## MOUNTING THE SAW ON A WORK BENCH

The saw should be placed on a suitable sturdy work bench and the base positioned so that the elevation crank is free to rotate. (See figure 4.) The base of the saw must be mounted flush to a flat surface on the work bench to prevent distortion of the saw base. The nuts, screws, and washers which attach the wooden shipping skids to the saw base may be used to secure the saw base to the work bench.

**NOTE:** The seven basic "steps" that follow are essential in order to insure correct saw table alignment.

### STEP ONE — INSTALLATION OF FRONT TABLE

1. Place the large table board upside-down on floor. The bottom side has a notch (cutout) for clearance of elevation crank. (See figure 4.) Distinguish between the five through-bored (leveling screw) holes and the seven countersink holes. Drive nuts into the five through-bored holes. (See figure 5.)
2. Place the large table board on channels with cutout notch forward and down as shown in figure 4.
3. Align the countersunk holes with matching holes in the channels. Place a 1/4" flat washer and a 1/4-20 x 7/8" machine screw in each of the six countersunk holes located above the channels. Use a 1/4-20 x 1-1/4 machine screw in the countersunk hole at the center of table board.
4. Attach lockwashers and nuts to the six screws in the channels. Do not tighten these screws at this time.

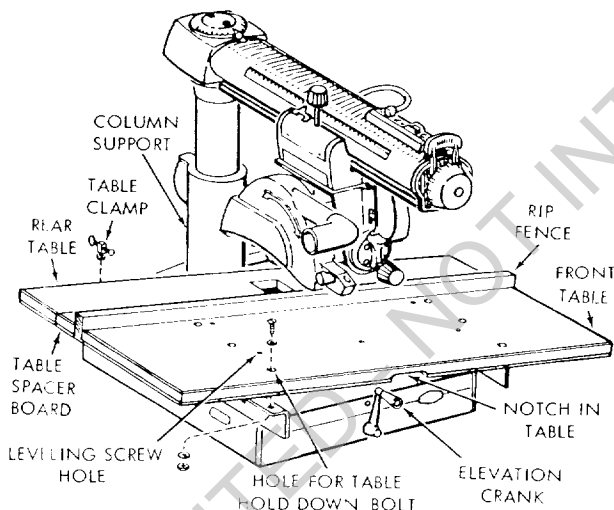


Figure 4

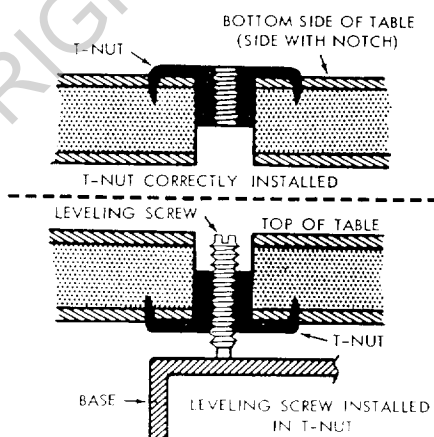


Figure 5

### STEP TWO — ELIMINATING RADIAL ARM SIDE PLAY

Check for looseness of column in column support. If looseness can be felt, perform operations in accordance with the numbered sequence in figure 6.

1. Loosen set screw (4) — Fig. 6A
2. Loosen set screw (5) 1/4 turn — Fig. 6B
3. Tighten set screw (6) — Fig. 6C
4. Tighten set screw (5) — Fig. 6B
5. Turn Crank (Fig. 6D) — If too tight, loosen set screw (6) 1/16 turn and check for smooth operation. Tighten set screws (5 and 6). Tighten set screw (4).

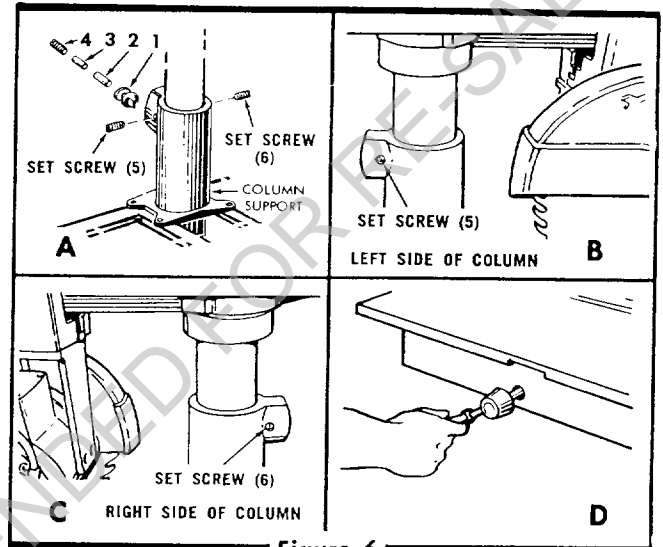


Figure 6

### STEP THREE — SQUARING THE CROSS CUT TRAVEL

1. Set the radial arm at 0° index position and tighten the arm latch handle (1, figure 7).
2. Place a square on the table as shown in figure 7 and position the saw and square until the leg of the square just contacts a tooth of the saw blade. (Position "A", figure 7.) Mark this tooth with crayon or chalk.
3. When the blade is moved back and forth on the radial arm, the saw tooth "A" should just touch the square at all positions. If saw tooth "A" does not touch the square at all points, make the following adjustments.
  - a. If saw tooth ("A", figure 7) moves away from the square when moving the blade from the rear toward the front of the table, tap the right-hand front edge of the table.
  - b. Recheck blade squareness and, if correct, tighten all table hold down screws.
  - c. Reverse this procedure if tooth "A" moves into the square when moving the saw table from the rear toward the front of the table.

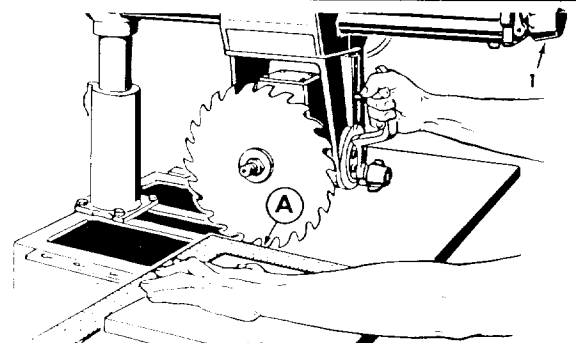


Figure 7

4. In extreme cases, the above adjustment procedure may not be sufficient due to rough handling during shipment. Make the following adjustment only after tightening the table screws and the cross-cut travel cannot be squared according to the preceding adjustment routine.

- Remove three screws (1 and 2, figure 8), indicator (3) and radial arm cap (4).
- Turn the arm latch handle (1, figure 7) one-half turn counterclockwise but do not pull it out.
- Loosen (do not remove) two hex-head screws (5, figure 8) located inside the column tube.
- Move the radial arm slightly in the proper direction to make saw tooth ("A", figure 7) follow edge of square when the saw blade is moved in and out in a "crosscut" manner.
- Retighten the hex head screws (5, figure 8) and arm latch handle (1, figure 7).
- Recheck travel of blade tooth ("A") with the square.
- After the cross cut travel has been accurately squared, install the radial arm cap (4, figure 8), indicator (3) and screws (1 and 2). Set the indicator (3) at 0° position.

#### STEP FOUR — LEVELING THE TABLE PARALLEL TO THE RADIAL ARM

**NOTE: DO NOT USE A CARPENTERS LEVEL**

- Remove the saw guard.
- Insert a set screw (leveling screw) into each of the five leveling, T-nuts. (See figure 5.) Insert screws from the top side until they just touch the top of the base.
- Tighten both channel clamping bolts (figure 9) at both front and rear of the base until they are snug (use a wrench but do not pull them up tight).
- Release the arm latch (1, figure 1) and carriage lock (5) for easy movement of saw blade during the leveling operation. Lower the blade and move it to points 1, 2, 3 and 4 (POSITION 1, figure 10) to find at which of these points the blade first touches the top of the table.
- The high point must be at one of the front leveling screw holes before continuing the leveling procedure. If high point is not at the front, adjust the leveling screw at point 1 or 2 so the high point is created at the front near point 1 or 2. Raise the blade slightly to pick-up a "pinging" sound at this new high point.

**NOTE:** Do not change elevation of the blade during the remainder of leveling operation.

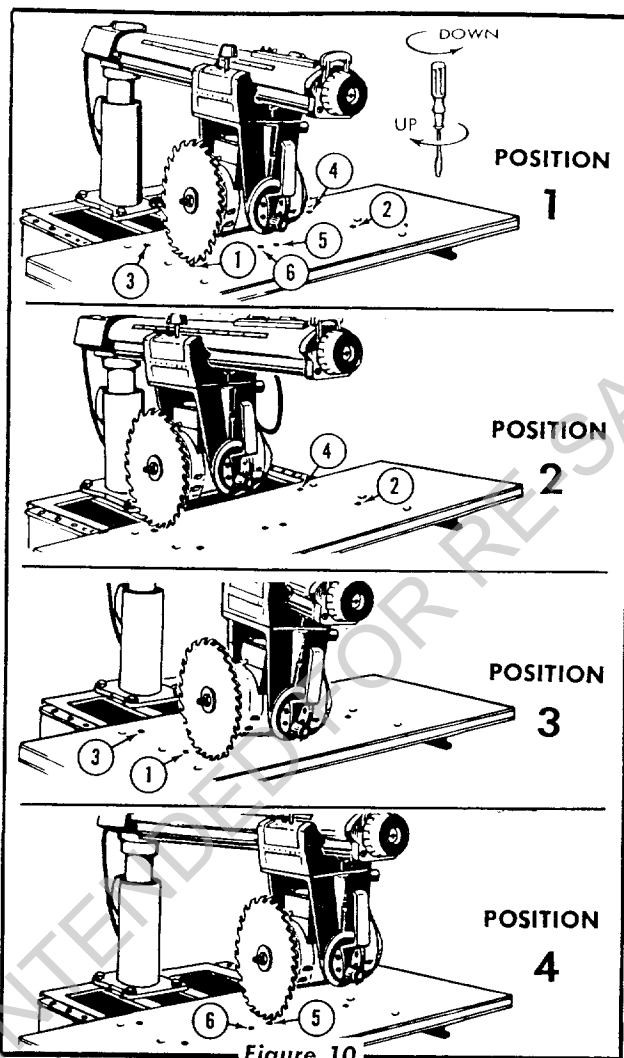


Figure 10

- Move the blade to the back of table, directly behind the high point. Raise the table to blade height at this point by adjusting leveling screws, points (2 and 4, POSITION 2) on right-hand side of table. Tighten the channel clamping bolts at front and back of base on the right-hand leveled side. (See figure 9.)
- Return the blade to front of table and make a slight adjustment of the leveling screw in this area, if necessary.
- Swing the blade to front of table on left-hand side. Adjust leveling screws at points (3 and 1, POSITION 3, figure 10).
- Tighten channel clamping bolts at front and back of base on the left-hand leveled side. (See figure 9.)
- Move the saw blade to all four leveling screw positions to recheck for proper leveling of table. (Points 1 through 4, POSITION 1, figure 10.)
- Move the saw blade to center of table. If the table is low at this point, raise it by adjusting the leveling screw (point 5, POSITION 4). It may be necessary to back off the screw (6) to provide proper clearance.
- If the table is high at the center, lower it by tightening the screw (6). When the table is level, rotate the set screw (5) clockwise until it bottoms on the base. This will serve as a lock for the adjustment of screw (6).
- Place the rip fence in vertical position behind front table board.
- Place the rear table behind the rip fence, with the cutout section forward (next to rip fence).
- Place the table spacer board behind the rear table.

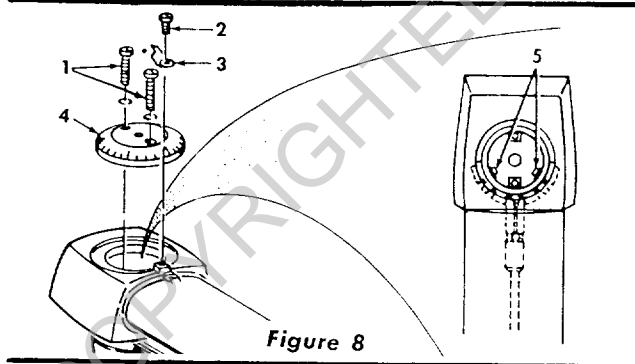


Figure 8

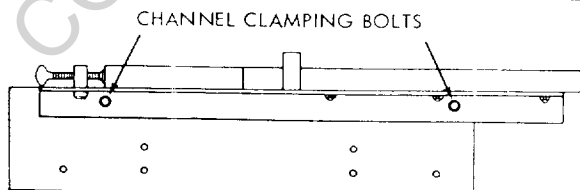


Figure 9

16. Install the table clamps at locations shown in figure 4 and tighten them securely against the edge of rear table.

#### STEP FIVE — SQUARING THE SAW BLADE TO THE TABLE TOP

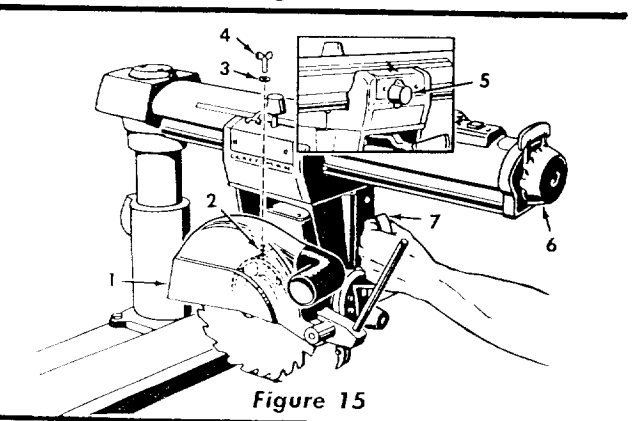
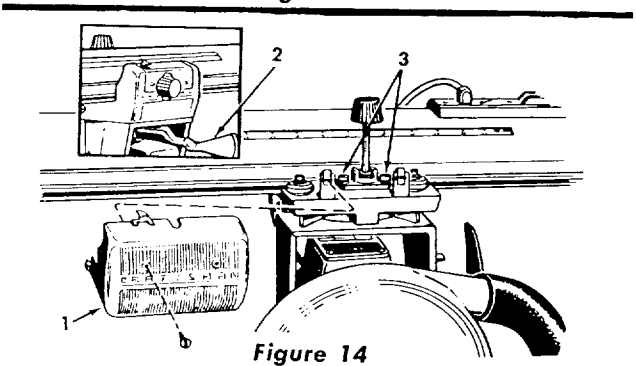
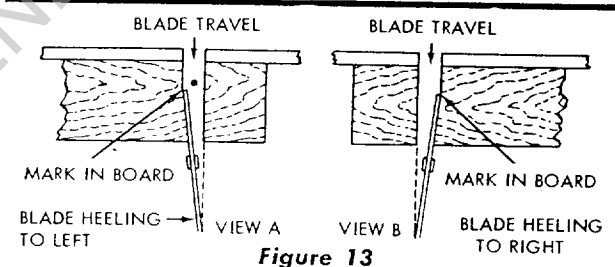
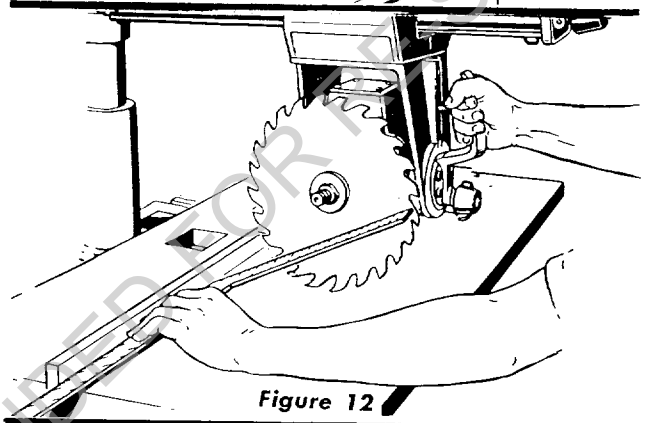
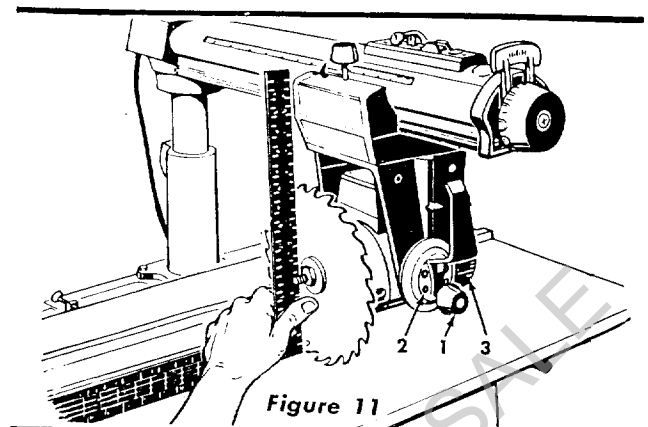
1. Place the edge of a framing square on the table top and against the saw blade as shown in figure 11.
2. When the saw blade is square to the table top, no light will be visible between the square and face of saw blade. Do not allow the square to rest against a tooth of the saw. If light is visible between the square and face of saw blade (with square leg held firm against the table top), perform the following adjustments.
  - a. Loosen the bevel lock knob (1, figure 11). Using a 7/32-inch hex "L" wrench, loosen just slightly the four socket-head screws (2, figure 11).
  - b. While holding the motor with one hand and the square with the other hand, tilt the motor until the saw blade is square with the table top. Then, while holding the square firmly against the saw blade and table top, apply pressure against lower part of saw blade with the thumb until approximately 1/32-inch clearance exists between the square and lower edge of saw blade. This is to compensate for the possible slight shifting of the motor while screws (2) are being tightened.
  - c. Tighten the socket head screws (2, figure 11) and bevel lock knob (1).
- NOTE:** It may be necessary to perform more than one trial operation before the saw blade remains perfectly square with table top after tightening screws.
- d. Recheck for blade squareness with table top.
- e. The indicator (3, figure 11) should read 0° on the bevel index scale. If not, loosen the indicator attaching screw, adjust indicator to zero and tighten screw securely.

#### STEP SIX — CHECKING THE SAW BLADE FOR HEEL (LEFT AND RIGHT)

1. Place a square against the rip fence and the saw blade as shown in figure 12. The long leg of the square must be held firmly against the rip fence and the short leg must not touch any of the teeth on the saw blade.
2. If a gap exists between the saw blade and the square, one of two types of "heel" exists. The two types of "heel" are illustrated in views "A" and "B", figure 13. To correct for either type of "HEEL" condition, proceed as follows:
  - a. Remove the left-hand carriage cover (1, figure 14).
  - b. Loosen the yoke clamp handle (2) by pulling the handle horizontally toward the front of the saw.
  - c. Loosen (slightly) the two hex-head machine screws (3).
  - d. Rotate the yoke until the gap between the saw blade and square is eliminated.
  - e. Lock the yoke by pushing the yoke clamp handle rearward and tighten the two hex-head machine screws (3).
  - f. Recheck for "heel" after tightening screws, and make corrections if necessary.
  - g. Replace carriage cover.

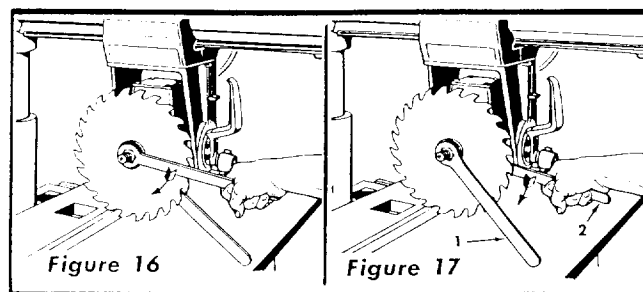
#### STEP SEVEN — DOUBLE CHECK SQUARING OF SAW

1. Recheck for correct adjustment of the saw by performing "STEPS THREE, FIVE and SIX".
2. If the cross cut travel is not perfectly squared, proceed with "STEP THREE" paragraph 4, and make all adjustments listed in sub-paragraphs "a" through "g".

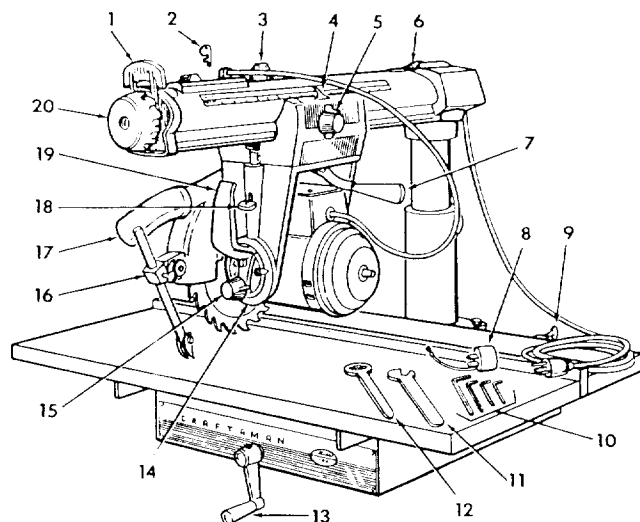


## ATTACHING AND DETACHING THE SAW BLADE

1. Remove shaft nut and one loose collar.
2. Place saw blade on motor shaft taking care that saw blade teeth are in same direction as shown in Figure 16.
3. Replace other loose collar and shaft nut. Smooth face of collar must be away from saw blade.
4. Use arbor wrench (1, figure 17) on motor shaft nut and shaft wrench (2) on slot in motor shaft to tighten shaft nut.



## OPERATING CONTROLS

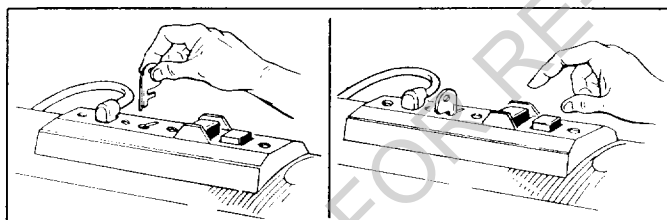


1. Arm Latch Lever
2. Switch Key
3. Swivel Latch Pin Knob
4. Rip Scale Indicator
5. Carriage Lock Knob
6. Radial Arm Indicator
7. Yoke Clamp Handle
8. Adapter Plug (Except in Canada)
9. Table Clamp
10. Hex "L" Wrenches
11. Shaft Wrench

12. Arbor Wrench
13. Elevation Crank
14. Bevel Index Scale and Indicator
15. Bevel Lock Knob
16. Anti Kick Back Pawl Assembly
17. Discharge Elbow

18. Latch Pin Handle
  19. Bevel Index Handle
  20. Arm Latch Handle
- NOTE: WHEN ORDERING REPAIR PARTS REFER TO PARTS LIST FOR CORRECT PART NUMBER.

### Instructions for use of Key and Switch



1. Insert key into slot and turn.
2. Press the red button to start saw motor. Press the gray button to stop.

NOTE: This saw can not be operated without the key, and likewise, the key can not be removed from the lock while the saw motor is running — this was designed for your safety and protection.

Figure 18

**RAISING AND LOWERING THE RADIAL ARM** is accomplished by the elevation crank (13, figure 18). One complete turn of this handle will raise or lower the radial arm  $\frac{1}{8}$ ".

**LOCKING THE CARRIAGE TO THE RADIAL ARM** is accomplished by the carriage lock knob (5, figure 18). Turn the knob clockwise to lock; counterclockwise to unlock.

**ANGULAR MOVEMENT AND LOCKING OF THE RADIAL ARM** are controlled by the arm latch lever (1, figure 18), and the arm latch handle (20). The radial arm can be rotated 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 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 and pulling out the arm latch lever (1).

For most positive and accurate settings at the index positions, the following is recommended:

1. If the radial arm is already indexed, unlock and pull out the arm latch lever and move the radial arm off the index position. Release the arm latch lever.
2. Before moving the radial arm to the desired index position, turn the arm latch handle (20, figure 18) just  $\frac{1}{4}$  turn counterclockwise from the locked position.
3. Move the radial arm into the index position (do not bump or jar) and push on the handle or the arm latch lever solidly with the palm of the hand.

4. Lock the radial arm by turning the arm latch handle fully clockwise.

**CAUTION:** When moving the radial arm in any direction beyond 45° left or right, always pull out the arm latch lever (at end of radial arm) to prevent damaging the arm lock pin. If damage occurs, the radial arm will not index properly at 0° and 45° left or right.

**MOVEMENT AND POSITION OF THE MOTOR IN THE YOKE** are controlled by the latch pin handle (18, figure 18) and bevel lock knob (15). The bevel scale indicates the angular position of the motor with respect to the horizontal from 0° to 90° in either vertical position. The latch pin handle automatically indexes the motor at 0°, 45°, and 90° up and down. Lift to release. At any other position, the latch pin handle is not engaged. The bevel lock knob locks the motor to the yoke when the motor is in any position. Locking is clockwise; unlocking is counterclockwise.

**MOVEMENT AND POSITION OF THE YOKE** are controlled by the swivel latch pin knob (3, figure 18) and the yoke clamp handle (7). The swivel latch pin automatically indexes the yoke at each 90° position and two 45° positions. Lift to release. The yoke clamp handle locks the yoke to the carriage in any position. Pull to release. Push to tighten. When "In-Ripping" it may be desirable to have more free table in front of the saw blade than is obtainable when the radial arm is at the 0° position. With the blade in the normal cross-cut position index the

radial arm to 45° left and lock it. Then loosen the yoke clamp handle and index the yoke 45° clockwise. Reclamp the yoke clamp handle. The added free table space is now to the right of the blade and ripping should be done from the right side of the table. The reverse is also true for "Out-Ripping" by indexing the radial arm 45° right and indexing the yoke 45° counterclockwise. The added table space is now to the left of the blade and ripping should be done from the left side of the table.

**CAUTION:** Under these two conditions the In-Rip and Out-Rip scales cannot be used.

### ADJUSTMENT OF RIP SCALE INDICATORS

When the fence is in its normal position (next to the front table), index the yoke 90° from the cross-cut position so that the blade is between the motor and the fence. Lock the yoke.

Move the motor along the radial arm until the blade, when spun by hand, just touches the front face of the fence (see figure 19). The indicator (4, figure 18) on the "In-Rip" scale should now read 0°. If not, shift the position of the indicator to read 0°.

The same indicator should also read correctly on the "Out-Rip" scale when the blade is in the out-rip position. **This indicator should be reset with any blade change.**

The "Out-Rip" scale on the left side of the radial arm is only used when the fence is in its extreme rear position against the table clamps and the blade is in the out-rip position. The same method of adjustment is used for this scale indicator except that the blade is positioned as shown so that 9" is measured between the fence and the nearest blade tooth. (See figure 20.)

The indicator should then be adjusted to read 9" on the "Out-Rip" scale on the left side of the radial arm.

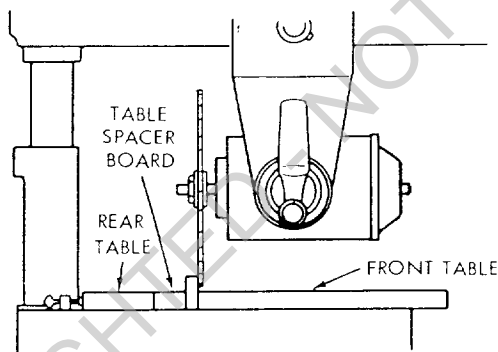


Figure 19

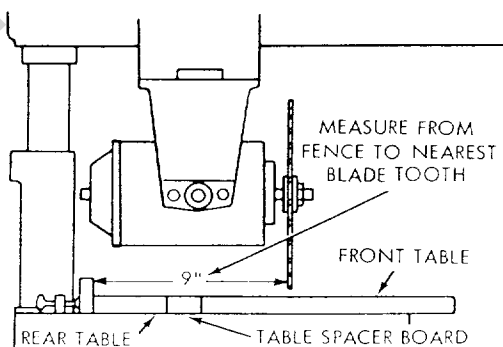


Figure 20

## ADJUSTMENTS TO COMPENSATE FOR WEAR

Even though the finest materials and precision workmanship have been used to minimize wear it is reasonable to expect some wear. Adjustments have been built into your Craftsman saw to reduce or eliminate this wear.

### ELIMINATING RADIAL ARM SIDE PLAY

(See Figure 21)

1. Loosen set screw (4) — Fig. 21A
2. Loosen set screw (5) 1/4 turn — Fig. 21B
3. Tighten set screw (6) — Fig. 21C
4. Tighten set screw (5) — Fig. 21B
5. Turn Crank (Fig. 21D) — If too tight, loosen set screw (6) 1/16 turn and check for smooth operation. Tighten set screws (5 and 6). Tighten set screw (4).

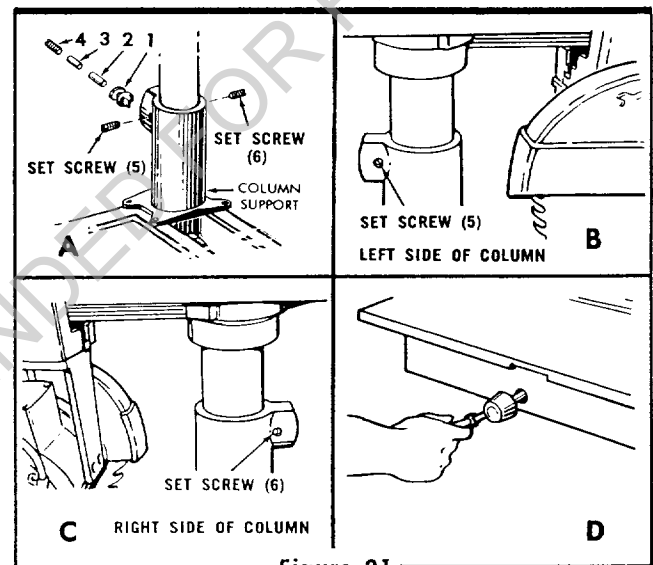


Figure 21

### YOKE CLAMP HANDLE ADJUSTMENT

The normal locking position of the yoke clamp handle (1, View A, figure 22) is midway between the two sides of the yoke.

When the handle strikes the yoke before locking, the handle may be adjusted as follows:

1. Remove saw guard and blade.
2. Set yoke clamp handle to Position "A", (View B, figure 22) (midway).
3. Remove lock screw (3).
4. With off-set screw driver turn slotted end of the yoke clamp (4) counterclockwise until a slight snugness of the yoke clamp handle is felt at Position "A".
5. To replace lock screw, align holes in yoke clamp with hole in yoke by a slight adjustment of yoke clamp using off-set screw driver. Insert lock screw and tighten.

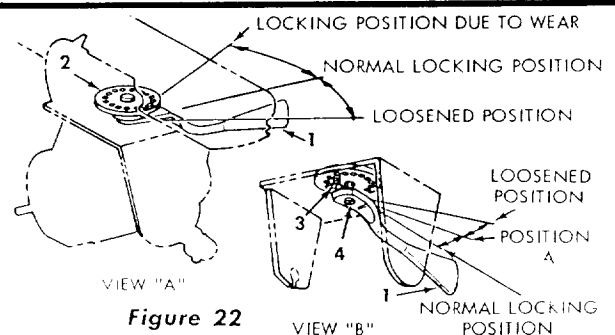


Figure 22

## CARRIAGE

To test looseness in the carriage, firmly grasp the carriage (1, figure 23) at the level of the ball bearings and apply a firm rocking motion.

Noticeable looseness may be adjusted as follows:

1. Remove saw guard and blade.
2. Place block of wood on table under motor and turn elevation crank until weight of motor just rests on block.
3. Remove left hand carriage cover (2, figure 23).
4. Loosen nuts (2, figure 24) one or two turns.
5. Turn adjusting screws (1) a partial turn left or right as required to take up looseness.
6. Hold head of screw in position established in step 5 above and tighten nut on under side of carriage.
7. Correct adjustment exists when there is no play between the carriage and radial arm, and yet the carriage moves freely.
8. Replace carriage cover.

## PROPER OPERATING PROCEDURES

**DRESS PROPERLY** — Operation of the saw is simple, safe and easy—when properly done. Always be alert. Do not wear a tie or other loose articles. Keep long sleeves down with cuffs fastened or wear short sleeves. **NEVER STOP BEING CAREFUL.** One moment of inattention can cost you a painful injury.

**AVOID AWKWARD HAND POSITIONS** — Do not get hands into a position in which a sudden slip can cause them to move into the saw blade. **NEVER OPERATE THE SAW WITH THE ARMS IN A CROSSED POSITION.** Never hold work on right side of blade with left hand while pulling saw with the right hand. Do not attempt free-hand cross-cutting. Use a push stick when hand gets too close to the blade in a ripping position.

**DISCONNECT INPUT CABLE** from power supply when adjusting the saw from one working position to another.

**NEVER TWIST WORK** — Twisting work will bind blade and cause a kickback.

### SAFETY PRECAUTION

The motor is shipped with a shaft cap threaded onto the stub end of the motor shaft. (See Parts List.) When this shaft end of the motor is not being used, this cap should always be attached.

## LUBRICATION

Your saw is a fine machine and should be given the best of care. If kept clean and properly lubricated, it will give many years of trouble-free service. Before describing the various points which may periodically require lubrication, IT IS MORE IMPORTANT TO FIRST MENTION THE VARIOUS SPOTS WHICH SHOULD NOT BE LUBRICATED.

### NO LUBRICATION REQUIRED

Do not lubricate any ball races or any ball bearings. Do not lubricate bearing fit of bevel index handle in yoke. (Refer to Parts List for location.)

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

Do not lubricate bevel latch pin in yoke.

Do not lubricate between radial arm cap and radial arm.

### PERIODICALLY LUBRICATE THESE POINTS

Use SAE No. 10-30 Auto Engine Oil and refer to Parts List for locations.

Apply a few drops of oil along the swivel latch pin only if the pin has a tendency to stick. Remove the left-hand carriage cover and use oil sparingly to prevent it from getting on the ball bearings or races.

A light film of oil can be wiped on the face of the column tube and keyway to lubricate the fit between this part and the key and column support.

Apply a few drops of oil to the bearing surfaces of the elevation crank shaft assembly. An oiling hole is provided in the elevation shaft bearing bracket to facilitate the lubrication of the rear bearing support.

The thread on the elevation shaft assembly can be lubricated through the oiling hole in the center of the radial arm cap.

## STANDARD SAW OPERATIONS

### CROSS-CUTTING

Cross-cutting is the sawing of wood across the grain. Planks are milled with the grain running the length of the plank. If a straight cross-cut is desired, the board is placed on the saw table against the fence so that the grain is parallel to the fence. (See figure 25.)

**NOTE:** When cross-cutting normal pieces of lumber, the long end of the board should be placed to the left of the saw blade as the board is normally held by the left hand during operation. The saw is pulled through the stock—not pushed.

The radial arm must be positioned at 0° as indicated by the radial arm position indicator. The arm latch handle must be indexed and tightened. (Refer to paragraph entitled "Angular Movement And Locking Of The Radial Arm".) The yoke must be indexed at the 0° position, making the saw blade perpendicular to the rip fence, and the yoke clamp handle placed in the locked position. The bevel index handle must be positioned at 0°, as indicated by the bevel scale, and locked. Turn the elevation crank to lower the saw until the blade teeth are approximately 1/32" below the table surface and ride in the saw slot made when performing the "PRELIMINARY CROSS-CUT AT THE 0° POSITION". Push the saw carriage to the rear of the radial arm so the blade is behind the rip fence. Adjust the saw guard so the bottom is parallel to the table and set the anti-kickback pawl assembly so it just clears the board to be cut. Press the switch key "On" to start the saw motor. Hold the board firmly against the rip fence with the left hand and grasp the bevel index handle with the right hand. The cut is then made by pulling the carriage forward until the saw blade cuts through the work. When the cut is

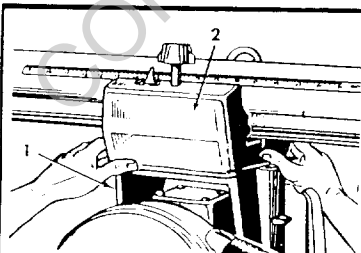


Figure 23

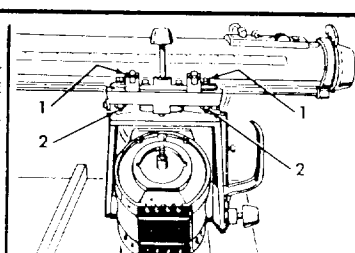


Figure 24

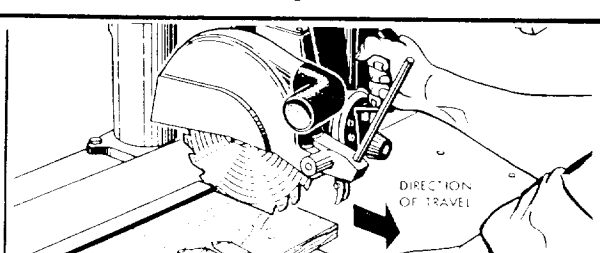


Figure 25



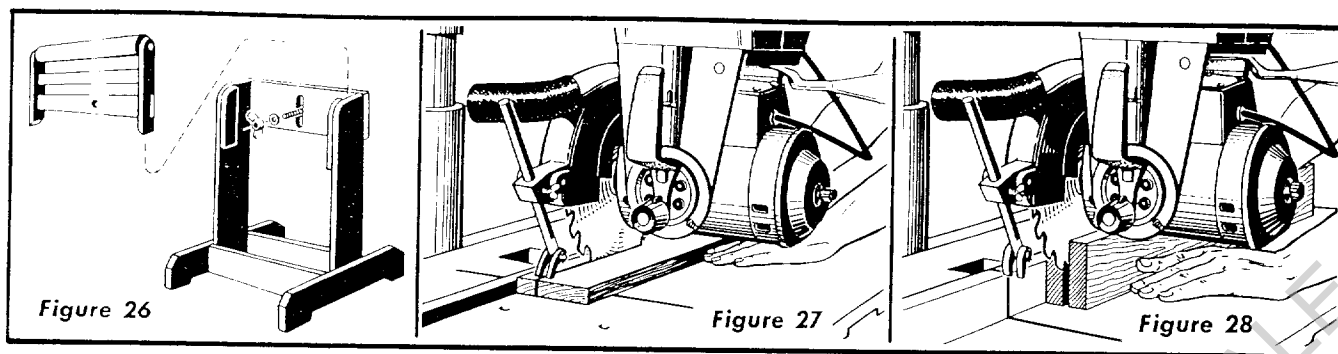


Figure 26

Figure 27

Figure 28

complete, the saw should be returned to the back of the radial arm and the switch turned "Off". When more experience is gained by using the saw, it will be noticed that when pulling the saw toward you during cross-cutting, the saw blade tends to feed itself through the work due to the rotation of the blade and the direction of feed. Therefore, the operator should develop the habit of holding his right arm straight from the shoulder to the wrist. After this method is used a few times the operator will find that it is necessary to roll or rotate the body from the waist up. If this method is followed, it will become apparent that very little effort is required on the part of the operator to move the saw blade through the work, and in most cases, the right arm is used merely to control the rate of feed of the saw through the board. It will also be found that when cross-cutting a thick board it will be necessary to retard movement of the saw through the work. By holding the right arm (right hand normally grips the saw handle) straight, the operator can easily control the rate of feed, thus preventing the saw blade from overfeeding and stalling the saw motor. This must be avoided whenever possible. In some cases it may become necessary to cross-cut long boards which extend over the saw table on one, or both sides. This can cause buckling of the board and bind the saw during the cut. To eliminate this condition the ends of the board should be supported. Figure 26 illustrates a typical support which can be made and used to facilitate cross-cutting of long lumber.

## RIPPING

Ripping is the sawing of wood with the grain. It is always done with the help of the fence as a guide to position and maintain the work at the correct width for the cut. Because the work is pushed along the fence, it must have a reasonably straight edge to make sliding contact with the fence. Also, the work must make solid contact with the table so that it will not wobble or rock. Provide a straight edge, even if this means temporary nailing of an auxiliary straight edge board to the work. If work piece is warped, turn the hollow side down.

Use of the saw guard is always recommended; and the anti-kickback pawl assembly should always be used in both ripping operations. Before ripping and after the saw has been positioned prior to cutting, the saw guard and anti-kickback pawl assembly must be properly adjusted. Loosen the wing nut holding the guard to the motor and lower the nose of the guard to within  $\frac{1}{8}$ " above the top surface of the board to be cut. Retighten the wing nut securely.

**CAUTION:** The nose of the guard refers to that end of the guard which is opposite to the end which mounts the anti-kickback pawl assembly. Always rip from the nose of the guard. See Warning Label on guard.

At the opposite end of the guard, loosen the wing screw holding the anti-kickback pawl assembly and lower the assembly until the tips of the pawls are  $1-8$ " below the top surface of the board to be cut. Retighten the wing screw securely.

**IN-RIPPING**—In-rip refers to a position when the blade is between the motor and the fence and parallel to the fence. (See figure 27.) To place the saw in this position, unlock the yoke, disengage the swivel latch pin and rotate the yoke  $90^\circ$  clockwise (viewing it from the carriage) until the swivel latch pin automatically indexes the yoke  $90^\circ$ . Relock the yoke. See "Adjustment of Pointers" to check accuracy of "In-Rip" scale reading. Position the motor on the radial arm until the pointer on the "In-Rip" scale indicates the desired width of the finished cut board. Tighten the carriage lock knob securely. Position the discharge elbow on the guard so that sawdust will be blown toward the rear of the saw. Turn the saw "On" and lower the radial arm until the saw blade cuts into the table top about  $1/32$ ". Turn the saw "Off". Now adjust the saw guard and anti-kick pawl assembly as described in the paragraph "Ripping". The board to be ripped must be fed into the saw blade from the right side of the table, therefore, the normal position for the operator is also at the right side of the table. With the left hand safely clear of the blade and holding the board to be ripped down against the table and against the face of the fence as a guide, use the right hand to feed the board into the saw. The left hand should remain stationary, serving as a guide only. As the right hand approaches the left hand, hold a push stick with the right hand to complete the cut. Do not leave a long board unsupported so that the spring of the board causes it to shift on the table. A support like that described in "Cross-Cutting" can be used to support the board behind the blade; and if the board is very long, use another support in front of the saw. Ripped boards up to  $8\frac{3}{8}$ " wide can be cut in the In-Rip position.

**OUT-RIPPING**—Out-rip refers to a position when the motor is between the blade and the fence. Normally, this position is only used when the width of the required ripped board cannot be cut from the in-rip position. Ripped boards up to  $18\frac{1}{4}$ " wide can be cut in the out-rip position when the fence is against the front table. If the fence is moved to the extreme rear position against the table clamps, ripped boards up to  $25\frac{3}{8}$ " wide can be cut. To place the saw in the out-rip position, the yoke must be rotated and indexed  $90^\circ$  counterclockwise from the cross-cut position and locked. The same procedure for pre-cutting the table top (see In-Ripping) and adjusting the saw guard and anti-kickback pawl assembly (see Ripping) should be followed. The same procedure for sawing is used except that now the operator stands at the left side of the table and a push stick is normally not required.

The same procedure for sawing is used except that now the operator stands at the left side of the table and a push stick is normally not required.

**NOTE:** For added table space in front of the blade see "Movement and Position of the Yoke".

## RESAWING

Resawing is the cutting of thick boards into thinner ones. It is a ripping operation. (See figure 28.) Small boards—up to

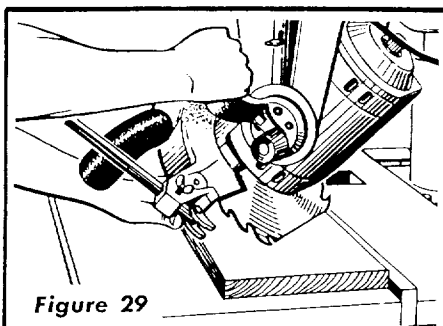


Figure 29

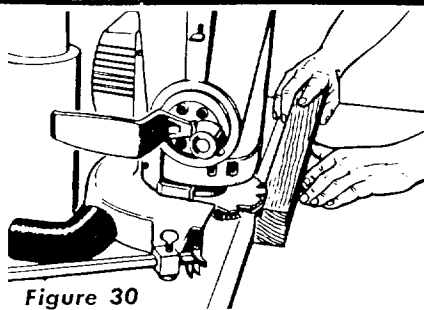


Figure 30

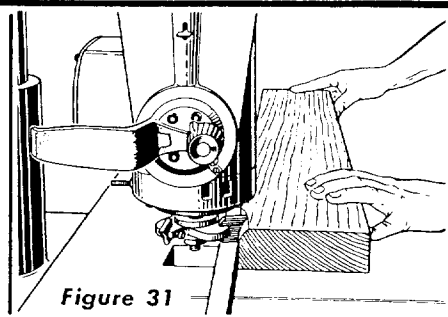


Figure 31

2½" maximum width—can be resawed in one pass; but larger boards up to 5" maximum require two passes, one pass along each edge of the board. When two cuts from opposite edges are required, these should be made to overlap ½" from the approximate center of the board. If the first cut is too deep, the kerf will close and bind the saw on the second cut, with danger of kickback. Also, when the kerf closes, the two sides of the cut are no longer parallel to the saw blade, and the saw will cut into them to spoil their appearance. Keep the same face of the board against the fence when making both cuts.

When cutting boards thicker than 4", a fence should be used which extends 3½" above the table top. When cutting boards thicker than 5", cut both sides and finish the cut with a hand saw.

### BEVEL AND MITER CUTS

Bevel cuts can be made from either a cross-cutting or ripping position by tilting the blade to the desired angle. Miter cuts can be made only from a cross-cutting position when the blade and radial arm are at some angle other than 90° to the fence. A bevel miter cut is a cut which is both beveled and mitered. This cut is made with the blade and radial arm set at the desired miter angle to the fence and then the blade only is tilted with respect to the table top to the desired bevel angle. This cut is also referred to as a compound miter. (See figure 29.)

### USE OF THE DADO HEAD

The dado saw or head, as it is called, is a special set of blades for cutting grooves and dados. Craftsman 8" Krom-edge Dado Set can be purchased at any Sears Retail Store or Mail Order House. The head consists of two outside blades 1/8" thick, six 1/8" thick chipper blades and paper washers for 1/16" width adjustments. With these blades, grooves of 1/8", 1/4", and additional widths increased in steps of 1/16" up to a maximum of 13/16" wide can be cut. Outside blades can be used alone, chippers cannot.

When using the maximum width of dado of 13/16" on the motor shaft, the outside loose collar must not be used. The width of the dado can be reduced while using the loose collar and two or more passes can be made with the work to obtain the desired width of cut. Whenever two or more chippers are used, stagger the cutting ends as evenly as possible around the circumference. Fractional adjustments in thickness of the head can be made by using paper washers between the outside blades and chippers. Dado head operations are much the same as those with a standard blade—but the dado head takes a bigger bite, so that the work-piece should be held more firmly. When a groove wider than the dado head is needed, make two or more passes. Space cuts so that they overlap a trifle. Dado work is done in the cross-cut position. Ploughing is done in the ripping position. If the rip or plough position is used the saw guard and anti-kickback pawl assembly should be adjusted as described in the paragraph "Ripping". Rabbeting is done in the vertical position. (See figure 30.) When

rabbeting, the motor is indexed 90° to the vertical position so that the blades are between the table top and the motor and the yoke is indexed 90° clockwise and locked. The saw is moved back on the radial arm and locked to the arm when the amount of the blade extending forward of the fence is equal to the depth of the rabbet desired. If the depth of the rabbet is large, do not attempt to cut it in one operation. Lower the radial arm until the blades are in a position to cut the desired width of rabbet in the edge of the board. The bottom of the saw guard should be parallel to the fence and the discharge elbow directed to the rear of the saw.

### MOLDING OR SHAPING

This work is done using the Craftsman Molding Cutter Head and a set of cutters depending on the type of molding cut desired. This work is done with the saw in the same position as that described for rabbeting. (See figure 31.) Since the position of the cutters with respect to the fence and the table top can be adjusted any or all of the cutter shapes can be used.

### ROUTING AND DOVETAILING

Routing and dovetailing are done with the motor indexed and locked 90° from the horizontal except that this time the externally threaded stub end opposite the normal blade end is between the motor and the table top. The following chucks will mate with this external 1/2-20 thread. (See figure 32.)

0" to 1/4" Key Chuck

5/64" to 1/2" Key Chuck

The following routers and dovetails are recommended:

- 1/8" router
- 1/4" router
- 3/8" router
- 1/2" router
- 5/8" router
- 3/8" dovetail
- 1/2" dovetail

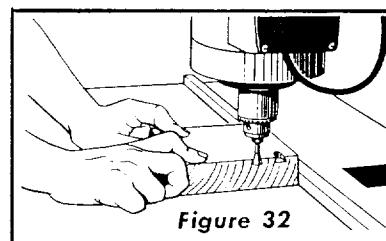


Figure 32

Routing may be done by either moving the work with a stationary router or by clamping the work to the table and moving the router. Always approach the router bit from the left hand side of the saw.

### BORING

Your saw can also be converted to a horizontal drill for boring by using one of the recommended chucks and the proper drill. For drilling holes on an angle the radial arm should be positioned to the desired angle while the work is parallel to the fence. (See figure 33.)

### SANDING

Using the 10" sanding disc mounted on the saw end of the motor, you can convert your saw into a sander which can be operated in any position. The loose collars should be used on both sides of the sanding disc.

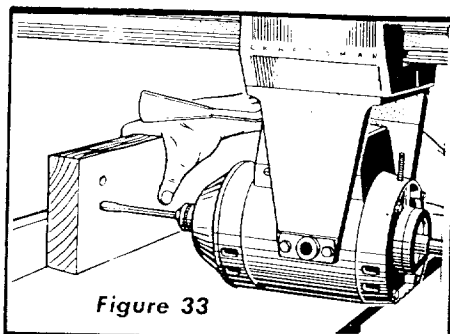


Figure 33

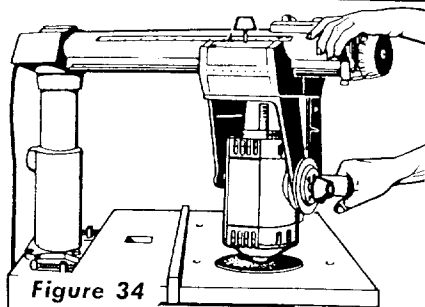


Figure 34

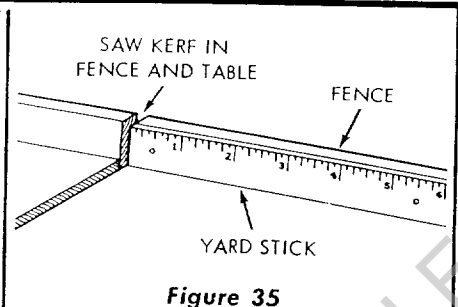


Figure 35

## STABILIZING WASHERS FOR THIN BLADES

Stabilizing washers should be used with blades for improved appearance of the finish cuts.

## BRAKE

The motor of this saw is equipped with a built-in electro-mechanical brake to eliminate a long coast time after the saw is turned off. When the motor is started, the brake shoe is instantly pulled away from the brake lining so that the motor does not start under load. When the motor is turned off the braking action takes place automatically. This brake is designed to stop a free running saw blade in 5 to 10 seconds. DO NOT attempt to alter either the brake disc or the lining to get a faster stopping time. Stopping the blade too suddenly could possibly unscrew the shaft nut.

## HELPFUL HINTS

1. The life of the laminated saw table can be greatly lengthened if a  $\frac{1}{4}$ " piece of plywood is tacked to the table top after leveling. Then all cutting can be done in the added piece of plywood instead of the laminated table.
2. There is a possibility that during or after shipment, the wooden front table; spacer board, or rear table might become slightly warped. Lay a straight edge across the surface of the table and check for gaps or high spots on the table. Any portions of the table which are not flat should be planed and sanded until flat. Sanding can be done by using one of the two key chucks referred to under "Routing" and a Craftsman moulded rubber 7" sanding disc.
3. When sanding the table top or routing with the work stationary, the arm lock pin can be prevented from automatically indexing at  $0^\circ$  and  $45^\circ$  by rotating the arm locked handle about 6 turns counterclockwise from the locked position. (See figure 34.)
4. A scale may be attached to the fence to aid the operator when measuring lengths during cross-cut operations. This can be accomplished by tacking a yard stick to the fence as shown. (See figure 35.)

5. In the event that the fence is warped and cannot be straightened by tightening the table clamps proceed as follows: Remove the fence and replace with a temporary fence made from a straight piece of scrap lumber. Proceed to cut slots in the original fence where the gap between the fence and front table was determined to be the greatest. (See figure 36 for slotting.) Replace the fence, after slotting, behind the front table with the slots toward the rear and tighten the table clamps.

6. There are three positions in which the fence can be located. (See figure 37.)

1. Normal position.

2. Position used for maximum cross-cut on 1" material and for greater bevel and miter capacity.

**CAUTION:** Rip scales cannot be used in this position.

3. Position used for maximum out-rip capacity.

7. Keep all cutting tools such as saw blades, drills, molding cutters, dados, etc. sharp and do not force feed the work to the point where the motor speed is drastically reduced. This will minimize effort, give better cuts, and better resist overheating and possible burn out caused by the abuse of overload.
8. When using planer, molding, or dado blades, repeated light cuts will give the best results. Deep cuts reduce the quality of the finish.
9. An auxiliary table top for molding or shaping can be constructed similar to figure 38. Note the shape of the back guide fence against which your work piece is moved. A cut-out 5" wide should be made at the center of this guide fence to give adequate clearance for the molding head and cutters. Also a wider clearance marked "A" should be made to allow for the radial saw motor. Be sure the front edge of the auxiliary table is parallel with the surface of the guide fence. With the auxiliary table top thus completed it is ready for use by merely clamping it into position with "C" clamps.

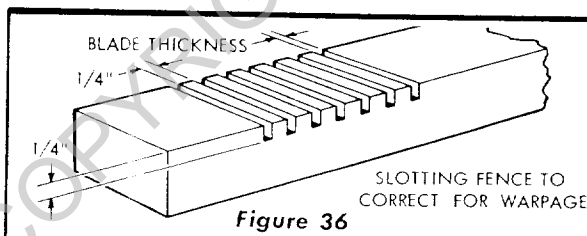


Figure 36

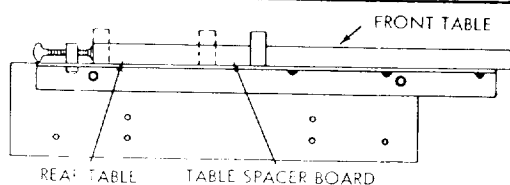


Figure 37

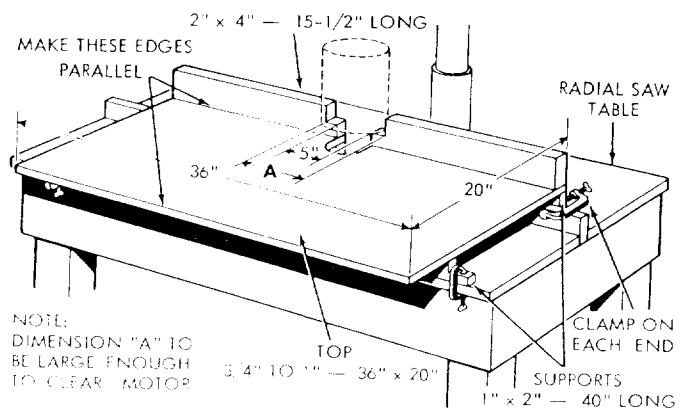


Figure 38

CRAFTSMAN ACCRA-ARM, 10-INCH RADIAL SAW, MODEL No. 113.29419

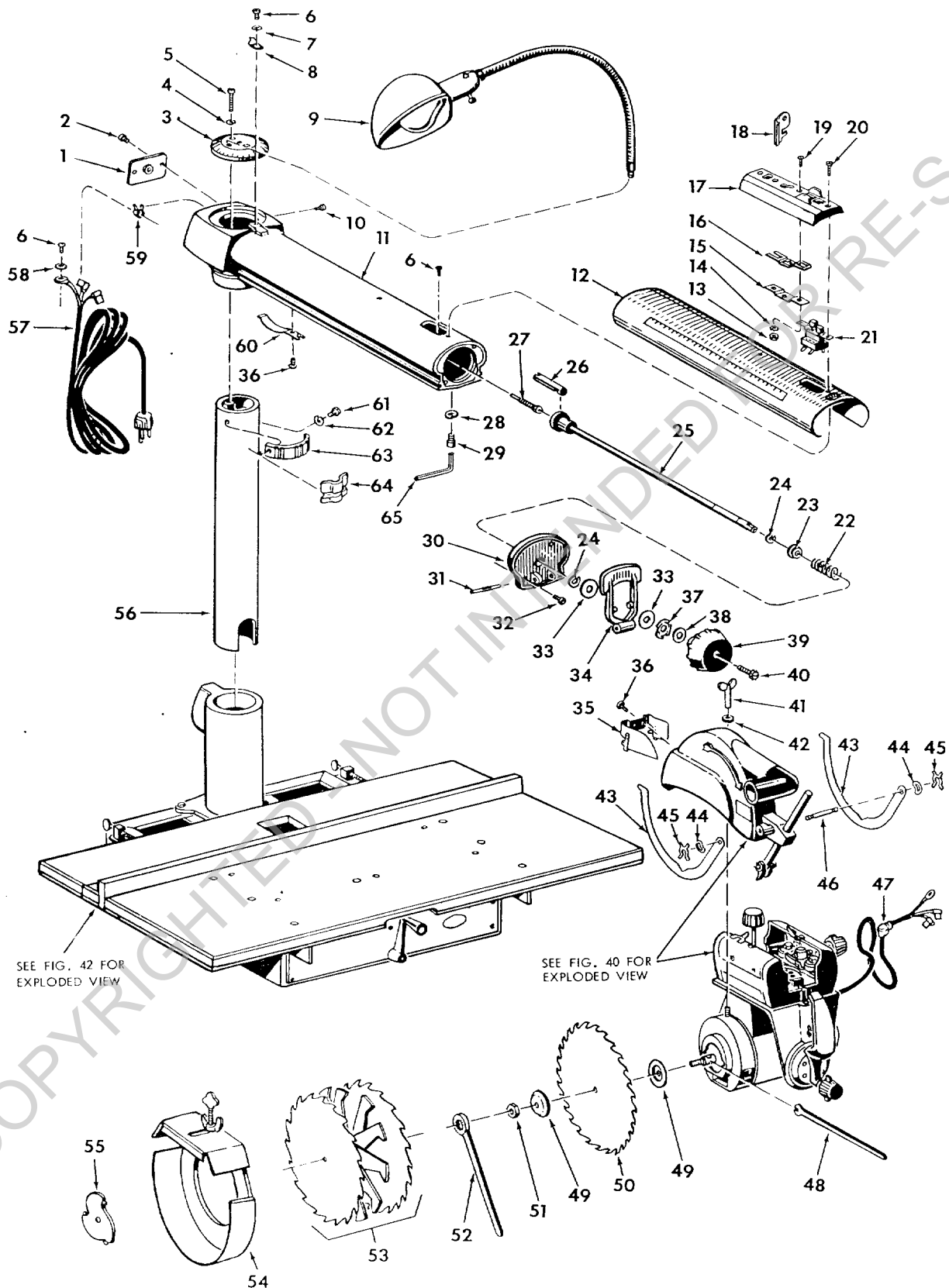


Figure 39

## CRAFTSMAN ACCRA-ARM, 10-INCH RADIAL SAW, MODEL No. 113.29419

All parts illustrated in Figures 39 through 42 and listed under part numbers may be ordered through any Sears retail or mail order store. Order parts by mail from the mail order store which 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 113.29419
4. THE NAME OF ITEM—RADIAL SAW

Always order by Part Number — not by Key Number

### FIGURE 39 PARTS LIST

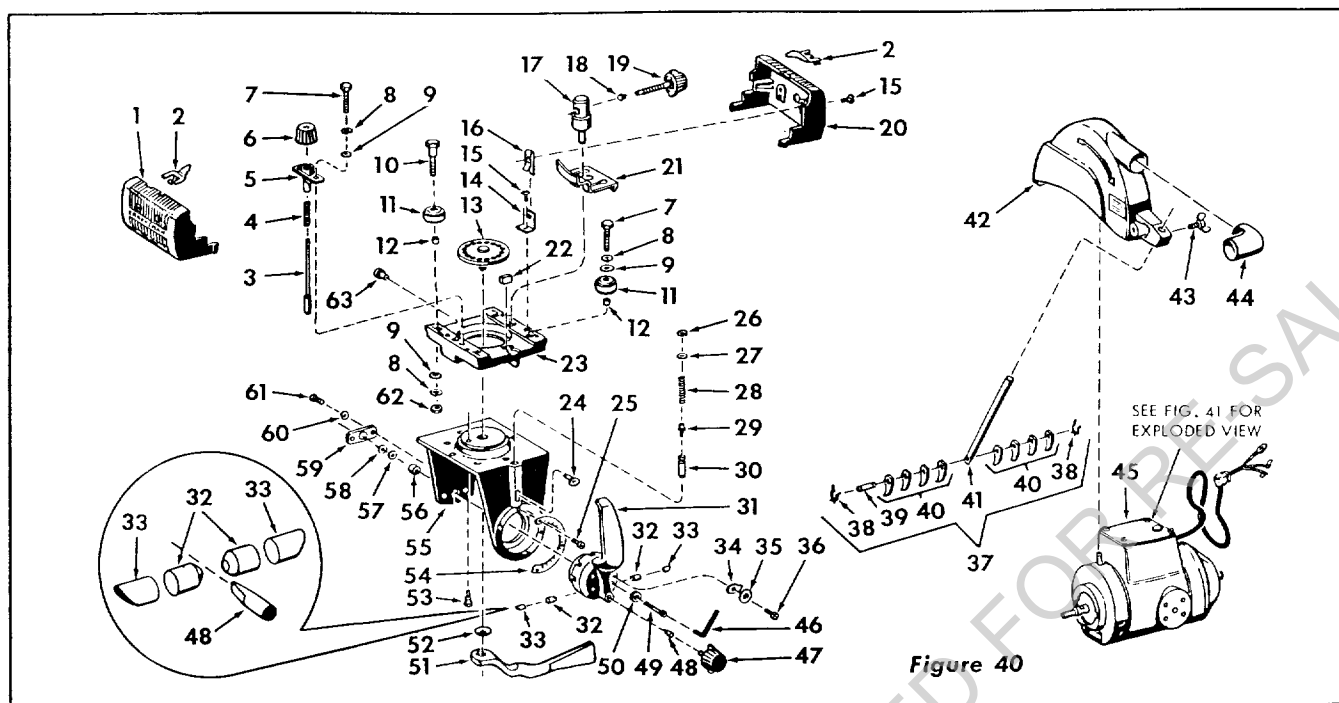
Key No.	Part No.	Description	Key No.	Part No.	Description
1	30473	Plate Assembly Cover	33	60076	Washer, Plain, .505 x 1-1/8 x 1/16, Steel
2	448033	Screw, No. 10-32 x 3/8, Type 23C1, Pan Hd. Slotted, Cad. Pl. Steel	34	37372	Lever, Arm Latch
3	37418	Cap, Radial Arm	35	37368	Guide Assembly, Safety
4	115109	*Washer, Lock, Med., 1/4 S.A.E., Steel	36	448011	Screw, No. 8-32 x 3/8, Type 23C1, Pan Hd. Slotted, Cad. Pl. Steel
5	191230	*Screw, Mach., 1/4 x 28 x 1, Fil. Hd. Slotted, Cad. Pl. Steel	37	37373	Washer, Spring
6	448001	Screw, No. 6-32 x 1/4, Type 23C1, Pan Hd. Slotted, Cad. Pl. Steel	38	60030	Washer, Plain, .505 x 1 x 1/32, Steel
7	37935	*Washer, Fiber, .140 x .250 x 1/32	39	37374	Handle
8	30474	Indicator No. 1	40	60077	Screw, Mach., 1/4-20 x 1-3/8, Truss Hd. with Lockwasher, Steel
9	9-2536	†Light, Work	41	30493	Nut, Wing
10	145205	*Screw, Sheet Metal, No. 8 x 3/4, Type B, Pan Hd., Cad. Pl. Steel	42	37938	Washer, Plain, 11/32 x 7/8 x 1/16, Cad. Pl. Steel
11	37863	Arm, Radial	43	30707	Guard, Safety
12	37867	Trim, Radial Arm	44	30709	Washer, Spring
13	134530	*Nut, Hex., No. 6-32 x 5/16 x 7/64, Cad. Pl. Steel	45	30708	Washer "X"
14	138473	*Washer, Lock, No. 6, External Tooth, Steel	46	30710	Pin, Cross
15	37873	Plate Safety Lock	47	37875	Relief, Strain
16	37876	Bolt, Safety Lock	48	30496	Wrench, Shaft
17	37878	Cover, Switch	49	30494	Collar
18	37861	Key, Safety Lock	50	9-3240	†Blade, Saw, 10" Kromedge Chisel Tooth
19	133427	*Screw, Mach., No. 6-32 x 7/16, Flat Hd. Slotted, Cad. Pl. Steel	51	30495	Nut, Shaft
20	448017	*Screw, No. 8-32 x 3/4, Type 23C1, Pan Hd. Slotted, Cad. Pl. Steel	52	3540	Wrench, Arbor
21	37874	Switch	53	9-3247	†Set, Dado Blades
22	30490	Spring, Arm Latch	54	9-29525	†Guard, Molding Cutter
23	30489	Washer, Spring Support	55	9-3220	†Head, Molding Cutter
24	30655	Ring, Retaining	56	30671	Tube Assembly, Column
25	37370	Shaft Assembly, Latch Arm	57	37363	Cord and Plug
26	30482	Pin, Arm Lock	58	115543	*Washer, Lock, No. 6, Internal Tooth, Steel
27	30662	Screw, Arm Lock	59	30472	Clamp, Cord
28	120214	*Washer, Lock, Med., 5/16 S.A.E., Steel	60	37871	Clip, Retaining
29	9421621	*Screw, 5/16-18 x 5/8, Socket Hd. Cap, Steel	61	9415837	*Screw, Mach., 3/8-16 x 3/4, Hex. Hd., Cad. Pl. Steel
30	37866	Cap, Trim	62	115548	*Washer, Lock, 3/8, Internal Tooth, Steel
31	453151	Pin, Groove, 3/16 x 1-3/4, Type E	63	30479	Latch, Arm
32	448039	Screw, No. 10-32 x 3/4, Type 23C1, Pan Hd. Slotted, Cad. Pl. Steel	64	30661	Shoe, Brake
			65	37909	*Wrench, Hex. "L", 7/32 Across Flats
			Not Shown	51454	Operating Instructions and Parts List for Craftsman Accra-Arm 10" Radial Arm Saw Model 113.29419

\* Standard Hardware Item — May be Purchased Locally.

† Accessory item not furnished with saw — contact your nearest Sears Retail Store or Mail Order House.

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.

# CRAFTSMAN ACCRA-ARM, 10-INCH RADIAL SAW, MODEL No. 113.29419



**FIGURE 40 PARTS LIST**

Key No.	Part No.	Description
1	37864	Cover, Carriage, Left Hand
2	30683	Indicator, Rip Scale
3	37494	Pin, Swivel Latch
4	30521	Spring, Swivel Latch
5	37385	Housing, Latch Pin
6	30519	Handle, Swivel Latch Pin
7	9415815	*Screw, Mach., 5/16-18 x 1, Hex. Hd. Indented, Cad. Pl. Steel
8	120214	*Washer, Lock, Med., 5/16 S.A.E., Steel
9	37936	*Washer, Plain, .328 x 3/4 x 1/16, Stl.
10	37387	Screw, Eccentric
11	37386	Bearing, Ball
12	37388	Sleeve, Bearing
13	30566	Clamp Assembly, Yoke
14	37392	Bracket, Carriage Cover Mounting
15	9404365	Screw, No. 8-32 x 5/16, Type 23C1, Pan Hd. Slotted, Cad. Pl. Steel
16	37393	U-Nut
17	37389	Pin, Lock Screw
18	37390	Plug, Brake
19	37391	Knob Assembly, Carriage Lock
20	37865	Cover, Carriage, Right Hand
21	37870	Shoe, Rip Lock
22	30567	Bumper, No. 2
23	37396	Carriage
24	30693	Handle, Latch Pin
25	113256	*Screw, Drive, No. 2 x 1/8, Type U
26	30546	Ring, Retaining, No. 2
27	30547	Disc
28	30548	Spring, Latch Pin
29	30690	Retainer, Latch Pin Handle
30	30689	Pin, Bevel Latch
31	30556	Handle, Bevel Index
32	30663	Expander
33	30665	Shoe, Index Handle Brake
34	30559	Indicator, No. 2

Key No.	Part No.	Description
35	37935	Washer, Fibre, .140 x .250 x 1/32
36	448001	Screw, No. 6-32 x 1/4, Type 23C1, Pan Hd. Slotted, Cad. Pl. Steel
37	37398	Pawl Assembly, Anti-Kickback
38	30542	Washer "X"
39	37400	Pin, Cross
40	30543	Pawl, Anti-Kickback
41	37399	Rod
42	37397	Guard
43	30540	Screw, Wing
44	37429	Elbow, Discharge
45	51447	Motor Assembly (Less Guard Stud) 115 Volts
	51448	Motor Assembly (Less Guard Stud) 230 Volts (See Fig. 41 for Exploded View)
46	37435	*Wrench, Hex. "L", 1/4 Across Flats
47	30551	Knob Assembly, Bevel Lock
48	30664	Pad, Pressure
49	9421626	*Screw, 5/16-18 x 1-1/2, Hex. Socket Hd. Cap, Plain
50	30606	Washer, Index Handle
51	37403	Handle, Yoke Clamp
52	37816	*Washer, .630 x 1-1/8 x 3/32, Steel
53	30558	Screw, Lock
54	30592	Scale, Bevel
55	37426	Yoke
56	37402	Bushing, Motor Support
57	30509	Washer, End Play, No. 8
58	30604	Washer, Oil Sling
59	37401	Plate, Motor Support Bushing
60	115109	*Washer, Lock, Med., 1/4 S.A.E. Steel
61	60021	*Screw, Mach., 1/4-20 x 7/16, Hex. Hd., Steel
62	124824	*Nut, Hex., 5/16-18 x 1/2 x 3/16, Stl.
63	30565	Bumper

\* Standard Hardware Item — May be Purchased Locally.

# **CRAFTSMAN ACCRA-ARM, 10-INCH RADIAL SAW, MODEL No. 113.29419**

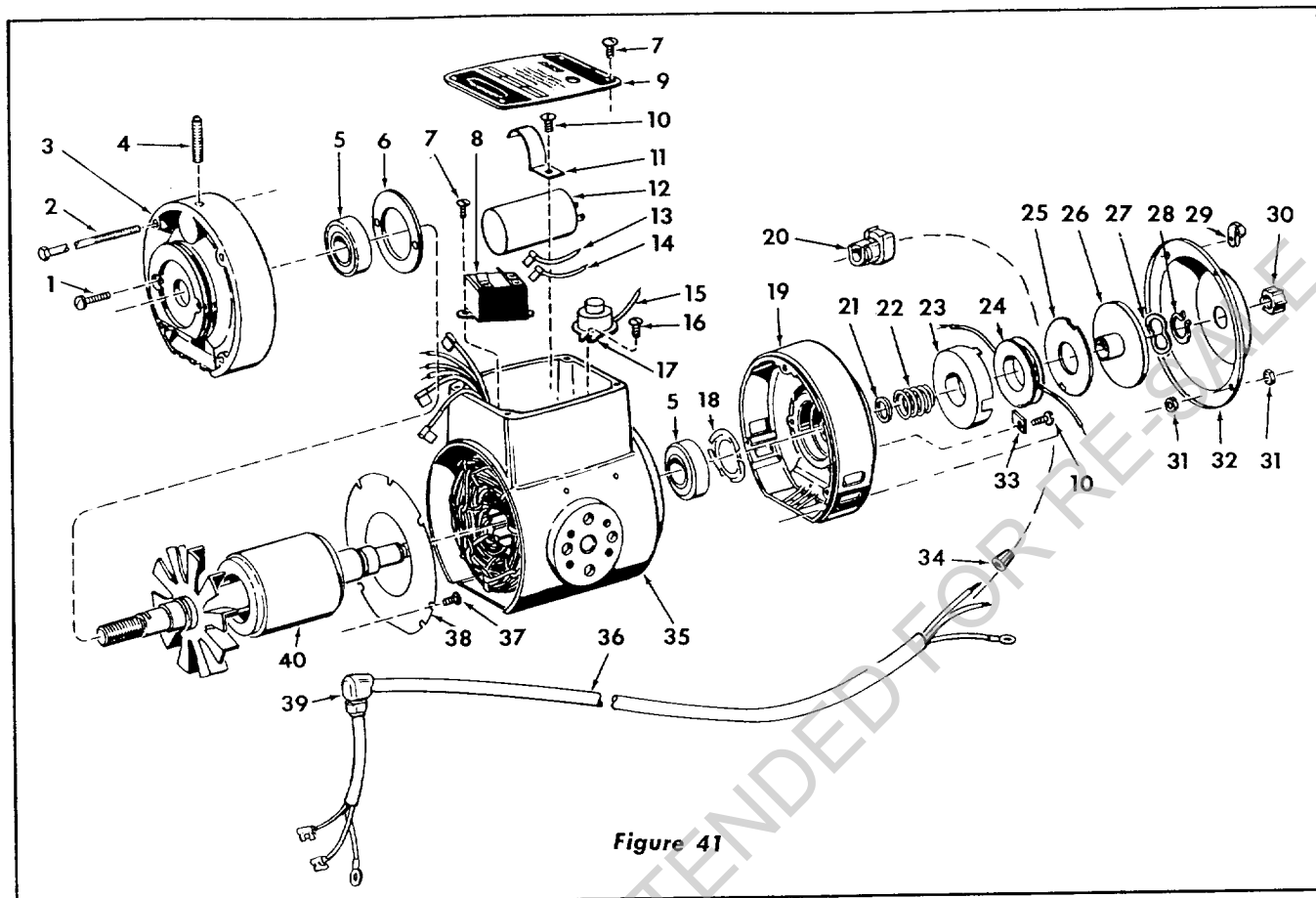


Figure 41

## **FIGURE 41 PARTS LIST**

Key No.	Part No.	Description
1	455330	*Screw, Mach., No. 10-32 x 1, Pan Hd. Slotted with Lockwasher, Cad. Pl. Steel
2	30697	Screw, Stator, No. 2
3	37427	Shield, End (Fan Blade End)
4	30570	Stud, Guard
5	30571	Bearing
6	30572	Plate, Bearing Retainer
7	448003	Screw, No. 6-32 x 3/8, Type 23C1, Pan Hd. Slotted, Cad. Pl. Steel
8	30588	Relay
9	51451	Plate, Identification (115 Volt Motor Only)
	51452	Plate, Identification (230 Volt Motor Only)
10	448011	Screw, No. 8-32 x 3/8, Type 23C1, Pan Hd. Slotted, Cad. Pl. Steel
11	30700	Clamp, Capacitor
12	30586	Capacitor
13	37409	Lead Assembly, No. 1
14	37410	Lead Assembly, No. 2
15	30619	Wire, No. 16, 3-1/2", AWG U.L. Approved
16	9404353	*Screw, No. 6-32 x 7/16, Type 23C1, Pan Hd. Slotted, Cad. Pl. Steel
17	37408	Protector
18	30580	Washer, Spring

Key No.	Part No.	Description
19	37407	Shield, End (Opposite Fan Blade End)
20	37818	Relief, Strain
21	37942	Washer, Spacer
22	37415	Spring
23	37908	Housing, Brake Coil
24	37883	Coil, Brake
25	37414	Shoe Assembly, Brake
26	37884	Disc, Brake
27	37886	Washer, Spring
28	30783	*Ring, Retaining
29	30613	Clamp, No. 2, Cord
30	30582	Cap, Shaft
31	120622	*Nut, Hex., No. 8-32 x 11/32 x 1/8, Cad. Pl. Steel
32	37434	Cover, Brake
33	37412	Cleat
34	30573	Connector, Wire
35	51449	Stator Assembly (115 Volt Motor Only)
	51450	Stator Assembly (230 Volt Motor Only)
36	51453	Cord
37	448001	Screw, No. 6-32 x 1/4, Type 23C1, Pan Hd. Slotted, Cad. Pl. Steel
38	30577	Plate, Baffle
39	37875	Relief, Strain
40	37885	Rotor Assembly

\* Standard Hardware Item — May be Purchased Locally.

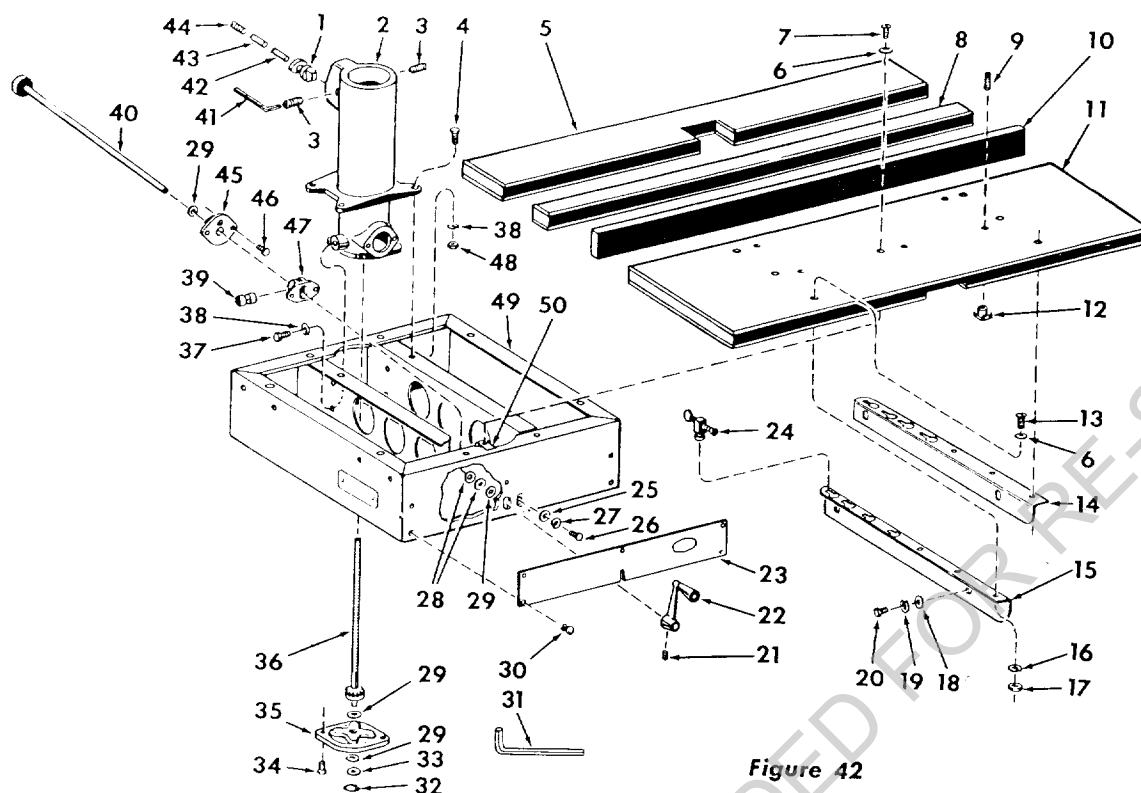


Figure 42

FIGURE 42 PARTS LIST

Key No.	Part No.	Description
1	63079	Key, Column Tube
2	37868	Support, Column
3	139416	Screw, Set, 3/8-16 x 5/8, Socket Hd., Cone Pt.
4	60020	*Screw, Mach., 3/8-16 x 1-1/8, Hex. Hd. Slotted, Steel
5	37379	Table, Rear
6	37937	Washer, 17/64 x 5/8 x 1/32, Cad. Pl. Steel
7	60057	*Screw, Mach., 1/4-20 x 1-1/4, Pan Hd. Slotted
8	37378	Board, Table Spacer
9	102707	*Screw, Set, 1/4-20 x 1/2, Slotted
10	37377	Fence
11	37376	Table, Front
12	37384	T-Nut
13	60056	Screw, Mach., 1/4-20 x 1, Pan Hd. Slotted
14	37880	Channel, Table Mtg., Right Hand
15	37879	Channel, Table Mtg., Left Hand
16	115109	*Washer, Lock, Med., 1/4 S.A.E., Steel
17	115120	*Nut, Hex., 1/4-20 x 7/16 x 3/16, Stl.
18	60013	*Washer, 11/32 x 7/8 x 1/16, Steel
19	120214	*Washer, Lock, Med., 5/16 S.A.E., Stl.
20	60078	*Screw, Mach., 5/16-18 x 1/2, Hex. Hd., Steel
21	102570	*Screw, Set, 1/4-20 x 3/8, Socket Hd., Cad. Pl. Steel
22	30518	Crank Assembly, Elevation
23	30517	Plate, Identification
24	37862	Clamp, Table
25	60079	*Washer, 13/64 x 7/16 x 1/16, Cad. Pl. Steel

Key No.	Part No.	Description
26	178451	*Screw, Mach., No. 10-32 x 3/8, Hex. Hd., Cad. Pl. Steel
27	120217	Washer, Lock, Med., No. 10 S.A.E., Stl.
28	30604	Washer, Oil Sling
29	30509	Washer, Flat, No. 8 (End Play) (as required)
30	30675	Fastener, Stud
31	30505	Wrench, Hex "L", 1/8 Across Flats
32	30516	Ring, Retaining
33	60080	Washer, Plain, .515 x 7/8 x 1/32, Stl.
34	423561	*Screw, Mach., 5/16-18 x 7/8, Hex. Hd., Cad. Pl. Steel
35	37428	Plate, Retaining
36	30678	Shaft Assembly, Elevation
37	60022	*Screw, Mach., 3/8-16 x 5/8, Hex. Hd., Steel
38	115093	Washer, Lock, Med., 3/8 S.A.E., Steel
39	30511	Pin, Pivot
40	30508	Shaft Assembly, Elevation Crank
41	37911	Wrench, Hex "L", 3/16 Across Flats
42	63077	Plug, Friction (Nylon)
43	63078	Plug, Back-up (Steel)
44	102718	Screw, Set, 5/16-18 x 1/2, Slotted, Cup Pt.
45	30510	Bracket, Elevation Shaft Bearing
46	448649	*Screw, 1/4-20 x 3/4, Type 23C1, Hex. Hd., Cad. Pl. Steel
47	30512	Bracket, Bearing
48	118615	*Nut, Hex., 3/8-16 x 9/16 x 21/64, Steel
49	37383	Base Assembly
50	37530	Nut, "U" Clip, 1/4-20