

# ASSEMBLY, OPERATING INSTRUCTIONS AND PARTS LIST FOR CRAFTSMAN 12 INCH BAND SAW

## MODEL NUMBER 113.24290

The Model Number will be found on a plate attached to the frame assembly, accessible with cover removed. Always mention the Model Number in all correspondence regarding the CRAFTSMAN BAND SAW or when ordering repair parts.

Carefully read the instructions provided, observe the simple safety precautions and you will have many hours of satisfactory use from your new Craftsman tool.

## 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 catalog 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 113.24290
4. The NAME OF ITEM —  
12-INCH BAND SAW.

## COAST TO COAST NATION-WIDE SERVICE FROM SEARS FOR YOUR CRAFTSMAN BAND 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**



# SAFETY RULES FOR POWER TOOLS

## 1. KNOW YOUR POWER TOOL

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

## 2. GROUND ALL TOOLS — UNLESS DOUBLE-INSULATED

If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical 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. KEEP WORK AREA CLEAN

Cluttered areas and benches invite accidents.

## 5. AVOID DANGEROUS ENVIRONMENT

Don't use power tool in damp or wet locations, and keep work area well lit.

## 6. KEEP CHILDREN AWAY

All visitors should be kept safe distance from work area.

## 7. STORE IDLE TOOLS

When not in use, tools should be stored in dry, high or locked-up place — out of reach of children.

## 8. DON'T FORCE TOOL

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

## 9. USE RIGHT TOOL

Don't force small tool or attachment to do the job of a heavy duty tool.

## 10. WEAR PROPER APPAREL

No loose clothing or jewelry to get caught in moving parts. Rubber gloves and footwear are recommended when working outdoors.

## 11. USE SAFETY GLASSES

with most tools. Also face or dust mask if cutting operation is dusty.

## 12. DON'T ABUSE CORD

Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.

## 13. SECURE WORK

Use clamps or a vise to hold work. It's safer than using your hand and it 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 at all times, and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

## 16. DISCONNECT TOOLS

When not in use, before servicing; when changing accessories such as blades, bits, cutters, etc.

## 17. REMOVE ADJUSTING KEYS AND WRENCHES

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

## 18. AVOID ACCIDENTAL STARTING

Don't carry plugged-in tool with finger on switch.

# ASSEMBLING AND ADJUSTING YOUR SAW

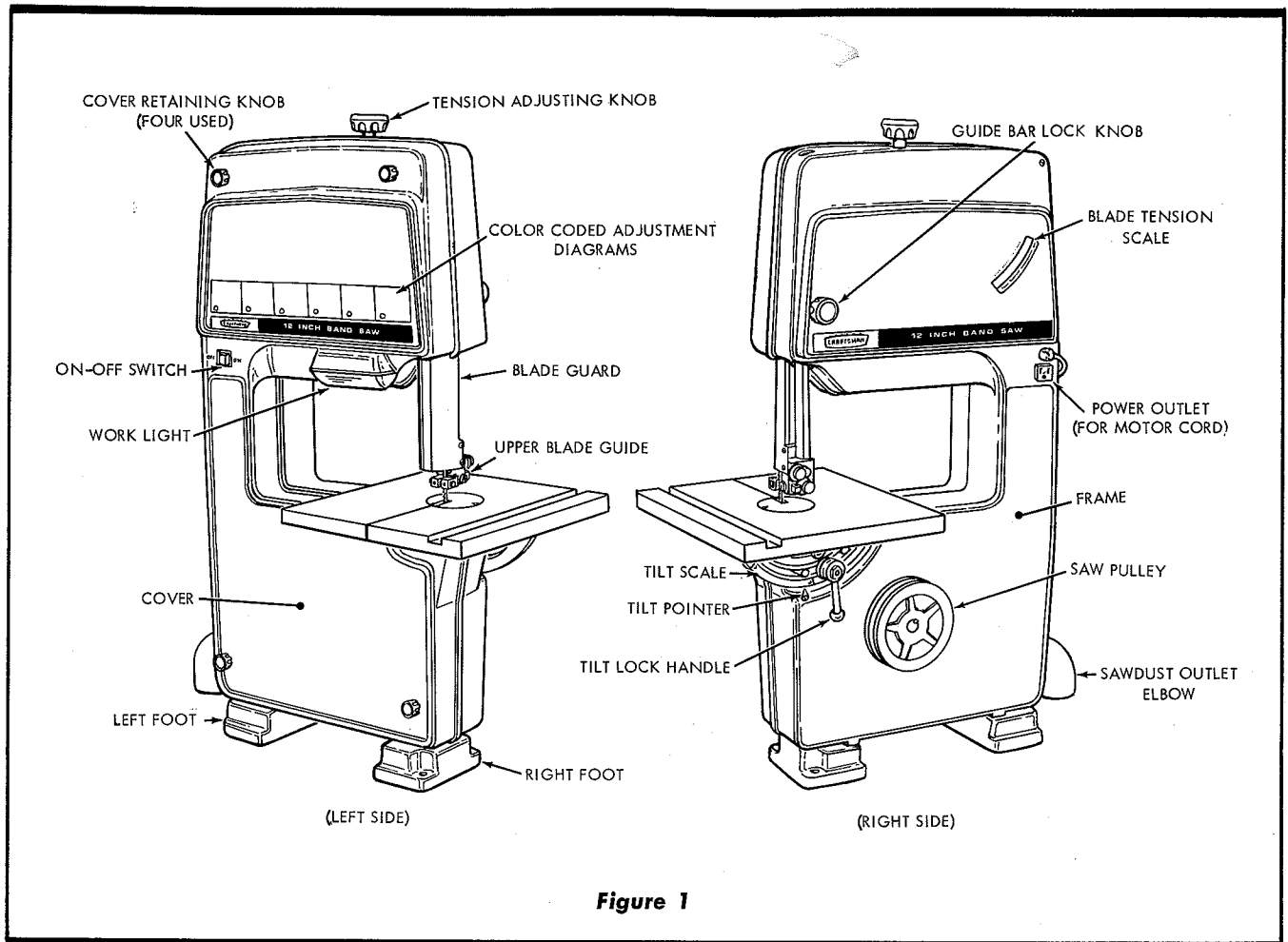


Figure 1

This Craftsman band saw is designed for rugged, dependable operation and long life. Attention has been given to every detail to provide ease of operation and to adapt the saw to the widest range of usefulness in the shop. Some principal features are:

1. The front trim panel contains six diagrams, located directly in view of the operator, which illustrate the principal adjustments encountered in operating the saw.
2. A clear-view blade tension scale enables the operator to adjust visually the blade tension for the size of the blade being used.
3. This saw has built-in sawdust collection feature which confines the sawdust to the work area. A container placed beneath the sawdust outlet elbow will collect most of the waste. However, in order to obtain maximum efficiency of this feature, use of a shop-type vacuum connected directly to the elbow is recommended.

**NOTE:** Excess accumulation of sawdust inside the saw may develop after long periods of use. To insure maximum effectiveness of the sawdust collection system, periodic removal of waste material is recommended.

## MOTOR AND BELT SPECIFICATIONS

1. **MOTOR.** This saw is designed for use with a 1725 rpm motor. A 1/3 horsepower motor should be used for light

duty, or a 1/2 horsepower motor for heavy-duty work.

2. **DRIVE PULLEYS.** The saw is equipped with a 5-inch diameter saw pulley and a 2-1/2-inch diameter motor pulley is provided. (Each pulley has a 5/8-inch bore with keyway). When the motor being used is equipped with the 2-1/2-inch pulley the saw wheel speed will be approximately 900 rpm or a blade speed of approximately 2,900 feet per minute (fpm). This speed is recommended for sawing wood and other materials having similar cutting characteristics. For metal cutting and other operations requiring considerably slower speeds, use a slow-speed converter.

**CAUTION:** The saw wheel speed should not exceed 900 rpm for any type of work.

3. **SPECIAL PULLEYS.** When purchasing different size pulleys for special use, be sure to state that the pulley should be designed for a 1/2-inch V-belt. The shaft diameter of the motor must also be specified.
4. **BELT.** A 1/2 x 43-inch V-belt is supplied with the band saw and will accommodate most applications. Should a special belt be required, measure around the outside of both motor and saw pulleys (not in pulley grooves) with a steel tape measure to determine the correct length.

**NOTE:** The motor and band saw mounting positions must be established before measuring for required belt length.

handle (wrench), place one of the .380 x 1-1/8 x .109 flat washers on the carriage bolt (in frame) and thread the trunnion lock nut onto the carriage bolt. (See figure 5.) Tighten trunnion lock nut with the tilt lock handle enough to secure the table temporarily.

6. With saw table in horizontal position, grasp the forward flange of the frame with fingers and, with the thumb "snap" the lower end of baffle into position so it will direct sawdust through the dust passage in the frame. (See figure 6.)
7. Install the tilt pointer with the 8-32 x 1/4-inch pan-head attaching screw. Tighten the trunnion lock nut firmly by hand.

**NOTE:** If the table is removed for any reason, be careful not to damage the tilt pointer or baffle.

8. Screw the two 10-32 x 3/8-inch tapping screws (from loose parts bag) into holes at lower rear of frame, adjacent to the sawdust elbow cutout. Run the screws in firmly to cut threads in the frame. Remove the two screws, place the dust elbow and tube clamp into position and install and tighten the two tapping screws. Tighten the screws alternately to insure a firm hold on the elbow. (See figure 7.)

9. Remove the protective backing from the foam gasket (in loose parts bag) and attach the gasket, making it conform to the clamp as shown in figure 8. Make sure the ends of gasket extend slightly above and below the tube clamp, as shown.

10. Loosen the two blade guard mounting screws and remove the blade guard.

11. If necessary, loosen the blade guide set screws and retract the blade guides enough to allow the saw blade to slide freely into the upper and lower blade supports. Also retract the blade thrust bearing far enough to prevent them from touching the blade when installed. (Refer to paragraph 2, under "ADJUSTMENTS," for instructions covering adjustments of these items.) Do not attempt to adjust blade guides or thrust bearing at this time.

12. Place the saw blade on the wheels, making sure the teeth are pointing toward the left-hand (cover) side of saw and downward.

13. Screw the blade tension knob onto the blade tension stud, extending through the frame at the top, and tighten the knob until the blade tension pointer indicates the width of saw blade being used. (With the 1/4-inch blade furnished, the pointer should be aligned with the "1/4" mark on the tension scale.)

14. Make sure the blade is in the blade guides (both upper and lower) and rotate the wheels by hand a few turns to make sure the blade rides properly on the wheels. Final tracking adjustments are described in paragraph 2, under "ADJUSTMENTS".

15. Insert the knurled screw in tapped hole near the end of blade slot in saw table. (See figure 16.) If the screw does not start readily into the threads, squeeze the table with the thumb and fingers until table top surface is even at both sides of slot; then start the screw and rotate it two or more turns before releasing the finger hold.

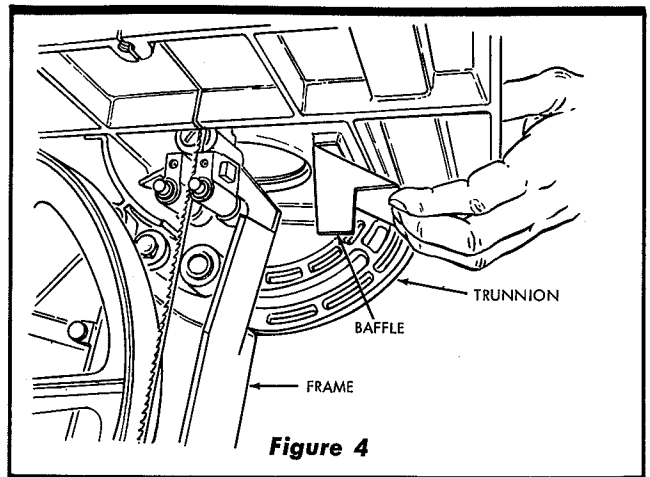


Figure 4

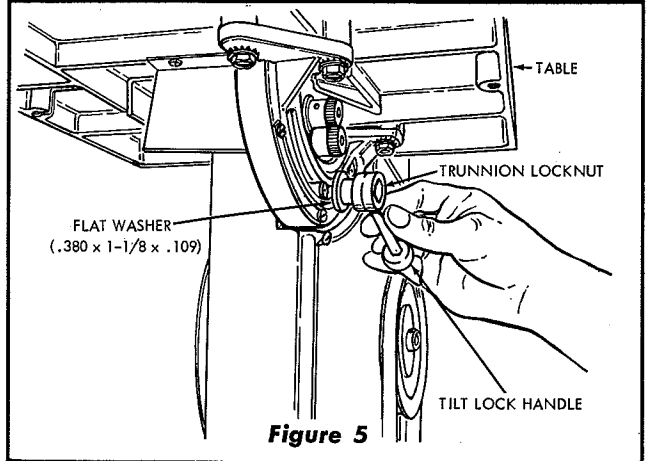


Figure 5

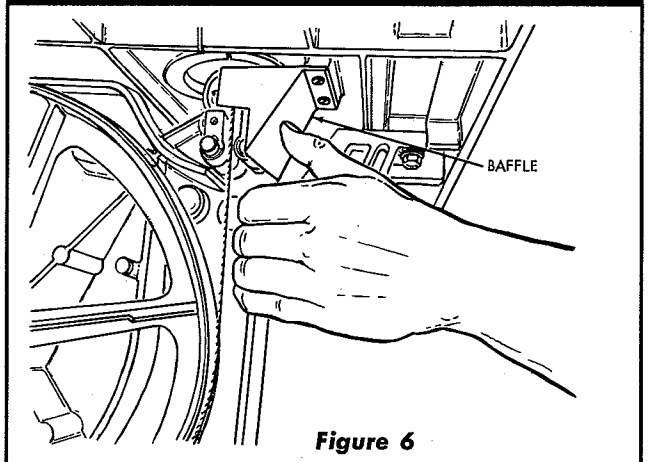


Figure 6

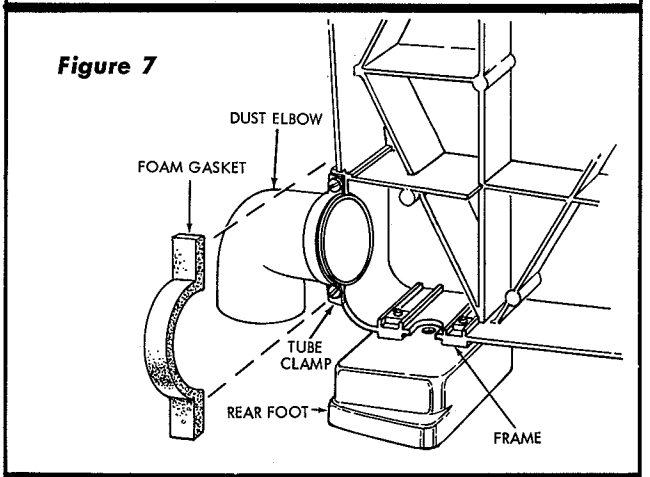
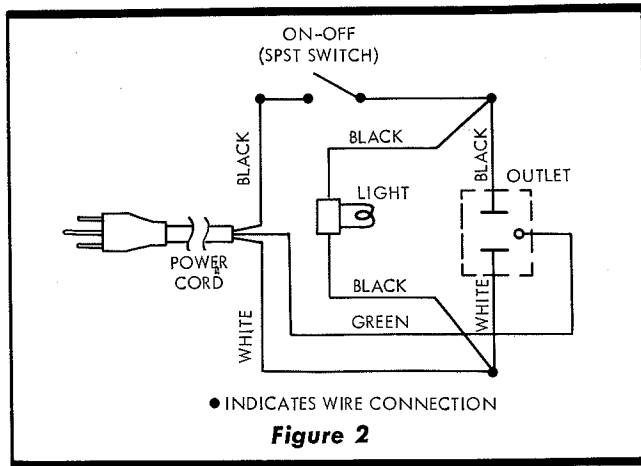
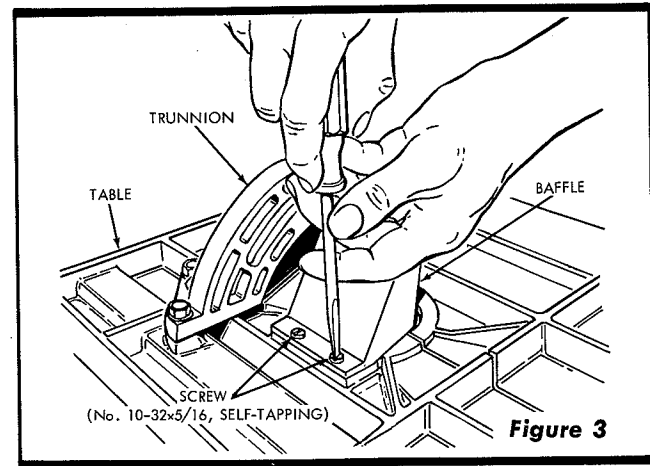


Figure 7



## ELECTRICAL CONNECTIONS

1. **BAND SAW WIRING.** A single three-wire power cord emerges from the saw frame through a molded strain relief. (See figure 1.) Mounted in the saw frame are three components as follows: (See figure 2.)
  - a. **Power Outlet.** Located on the right hand side is a standard grounded power outlet for connecting a 115 v. only drive motor to be used with the saw. This outlet should not be used for any other purpose.
  - b. **On-Off Switch.** This rocker switch is located on the left-hand side of the saw and when on, energizes the power outlet and turns on the work light. Thus,



with the motor cord plugged into the outlet, the switch turns the motor on or off.

- c. **Worklight.** A 25-watt light bulb, located inside the frame cover, illuminates the table area when the switch is on. A clear plastic insert in the cover protects the lamp and directs the light beam to the work area.
2. **CIRCUIT PROTECTION.** For protection of the power supply circuit if not circuit-breaker equipped, it is recommended that a 15-ampere fuse be installed in the line to the saw. Use "Fustat", "Fusetron" or similar slow-blow type fuses. If the operator should detect the presence of static electricity, it is recommended that a ground wire be connected between the saw frame and a cold water pipe, or other effective ground.

## ASSEMBLING YOUR SAW

### PARTS IDENTIFICATION

In order to prevent damage during shipment and facilitate packaging, certain parts were disassembled from the saw. These parts are listed below, and should be accounted for before discarding any of the packing material. Refer to the exploded view drawing and Parts List as an aid in identifying, locating and installing these parts.

QUANTITY	ITEM
1	Saw table
1	Saw blade (1/4-inch)
1	Dust elbow
1	V-belt
1	Sanding belt (1/2-inch)
1	Bag of miscellaneous small parts consisting of the following:
1	Table insert (narrow slot for sawing)
1	Table insert (wide slot for sanding)
1	Blade tension knob
1	Motor pulley
1	Sanding platen
1	Hex-L wrench (1/8-inch)
1	Hex-L wrench (5/32-inch)
1	Hex-L wrench (3/16-inch)
1	Tilt lock handle (wrench)
2	Flat washer (.380 x 1-1/8 x .109)
1	Trunnion lock nut
1	Baffle (Plastic — attaches under table)
2	Screw (Pan hd., type 23, self tap, 10-32 x 5/16-inch long)
1	Tube clamp (for attaching dust elbow)
1	Foam gasket
2	Screw (Type 23, tapping, pan hd., 10-32 x 3/8-in. long)
1	Screw (knurled-head, for table slot)
1	Screw (Type 23, pan-hd. No. 8-32 x 1/4-inch long)
1	Set screw — table stop (socket-hd., flat point, 5/16-18 x 3/8-inch long)
1	Alignment plate

### QUANTITY ITEM

1	Screw (flat-hd., 6-32 x 7/16-inch long)
1	Nut (hex., 6-32)
1	Lockwasher (split, No. 6)
1	Adapter plug
1	Tilt pointer

### ASSEMBLY PROCEDURE

**WARNING:** Do not plug in the power cord to attempt to operate the saw until it has been completely assembled as outlined in the following instructions:

1. Remove the four cover retaining knobs and slide the cover carefully off the studs. (See figure 1.)
2. Screw the socket head, flat-point table-stop set screw (5/16-18 x 3/8-inch) from the loose parts bag into the tapped hole at rear center of the saw table, with socket head at top. This screw adjusts the 90° stop position of table and is to be adjusted after the table is installed.
3. Place the saw table upside-down on a work bench and install the baffle with two pan-head self tapping 10-32 x 5/16-inch screws. (See figure 3.) Be sure to locate the baffle in position shown.
4. Grasp the saw table with fingers holding the baffle so it will not strike the saw frame (figure 4), and slide the table carefully onto the frame from right-hand side. Make sure the two guide pins in the frame enter the slot in the trunnion.
5. Place the saw table in an approximate horizontal position, insert the trunnion lock nut through the tilt lock

16. Install the blade guard and tighten the two attaching screws.
17. Install the table insert.
18. Carefully place the frame cover on the frame and install the four cover retaining knobs.

**NOTE:** The saw is now assembled, but before operating it with power, all adjustments should be checked and corrected. Refer to the next paragraph entitled "INSTALLATION AND ADJUSTMENTS."

## INSTALLATION AND ADJUSTMENTS

### INSTALLATION

1. The right foot contains two mounting holes and the left foot contains a single hole for mounting the saw to a table or tool base with bolts or lag screws. The cover must be removed to provide access to the single hole in left foot. When mounting the saw, consideration should be given to drive motor location, position of sawdust outlet elbow and length of belt.
  2. When installing the bolt, (or screw — not supplied) in the rear foot, be sure to use the .380 x 1-1/8 x .109 flat washer (from loose parts bag) under the bolt (or screw) head in order to prevent sawdust leakage around the bolt. (See figure 8.)
- NOTE:** Make sure the washer is placed on the frame (figure 8) — not on rear foot.
3. Mount the motor so it will drive the saw pulley counter-clockwise (when facing the pulley). Mount the motor so the slotted mounting holes in the base will permit subsequent belt adjustments when required. Make sure the motor pulley is aligned with the saw pulley.
  4. Install the belt, shift motor until belt adjustment is correct, and tighten saw and motor mounting bolts (or screws).

### ADJUSTMENTS

All items listed in this paragraph should be checked and corrected when necessary to insure proper operation of the saw.

1. **BLADE TENSION.** Correct blade tension is accomplished by rotating the tension adjusting knob (figure 1) while watching the blade tension scale on right-hand side of saw. Markings on the scale are "1/2", "3/8", "1/4", "1/8", and "SANDING". These indications represent the width of the blade being used. Thus when using a 1/2-inch blade, the pointer should be set to "1/2", a 1/4-inch blade to "1/4", etc. When using a sanding

belt on the saw, rotate the tension adjusting knob until the pointer is aligned with the mark labeled "SANDING".

2. **WHEEL ALIGNMENT.** The upper and lower wheels must operate in the same vertical plane. This has been established when the saw was assembled at the factory. If, due to rough handling during shipment, the upper wheel has become misaligned, proper alignment may be accomplished as follows: (See figure 9.)
  - a. After installing the saw blade, and rotating the wheels a few turns by hand, remove the baffle and saw table and place a straightedge across the two wheels at the end of the light support bracket, as shown in figure 9.
  - b. If wheels are in correct alignment, the straightedge will contact the wheels at four points, A, B, C, and D.
  - c. If any misalignment exists, first rotate the slotted-head set screw in the center of upper wheel shaft and, with the straightedge contacting points C and D on the lower wheel, adjust the set screw in or out until the straightedge contacts points A and B on the upper wheel. If straightedge contact is made on upper wheel at points "A" and "B" but fails to touch lower wheel at both "C" and "D", it will be necessary to loosen the set screw in the lower wheel hub and slide it a short distance in or out on the shaft as required, to permit both wheels to be aligned at all four points. The set screw in the upper wheel will have to be adjusted each time the lower wheel is moved on its shaft. Be sure to tighten the set screw in lower wheel hub after alignment is complete.
3. **FINAL TRACKING.** After aligning the wheels as described in the preceding paragraph, rotate the wheels by hand to determine if the saw blade rides on the center of both wheels. If not, readjust the alignment very slightly by adjusting the tilt of upper wheel with the slotted-head set screw at the center of wheel hub. Rotate the wheels several turns after each trial adjust-

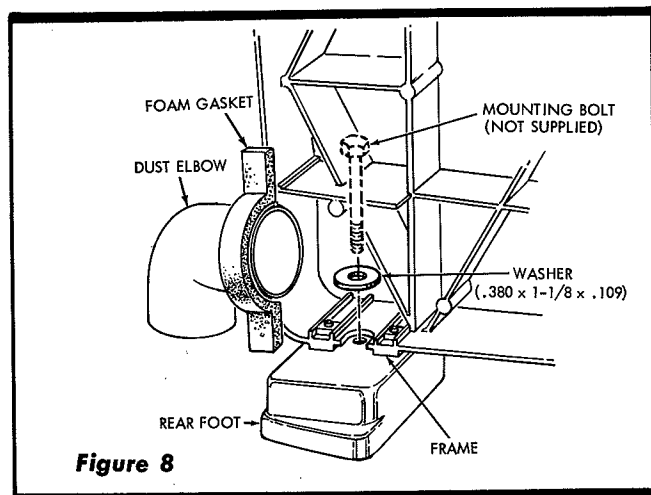


Figure 8

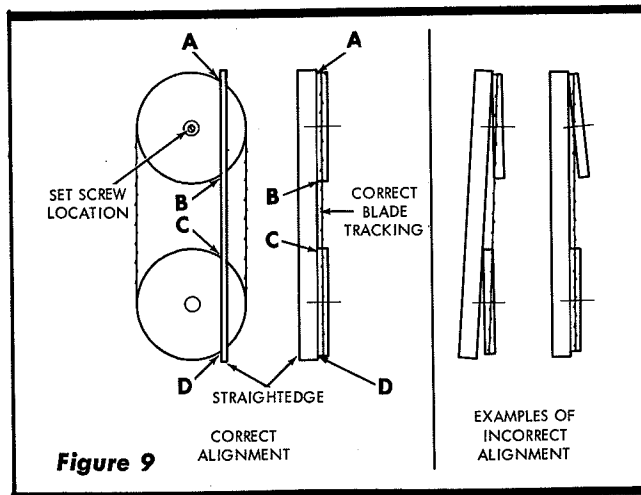


Figure 9

ment to check for proper blade tracking. After completing the blade tracking adjustment, install the saw table and baffle. (See figure 4.)

4. **BLADE GUIDES.** Blade guide assemblies are provided both above and below the table in order to support the blade against lateral thrust and direct thrust. Both guides must be kept in correct adjustment.

#### 5. UPPER BLADE GUIDE ADJUSTMENT.

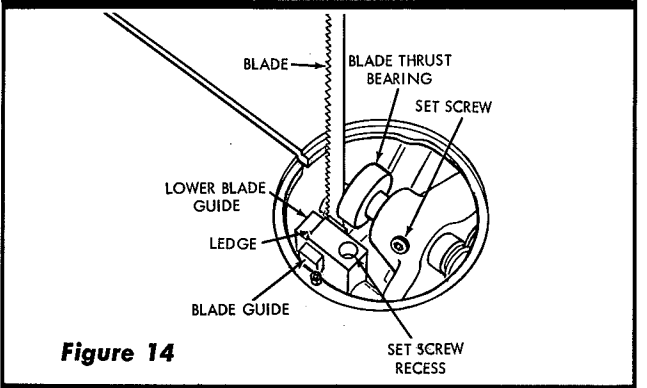
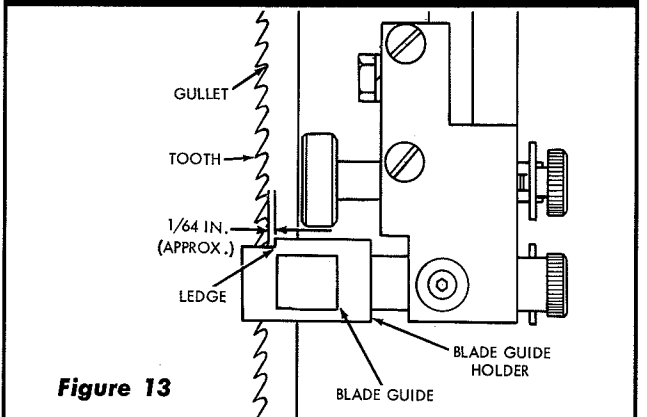
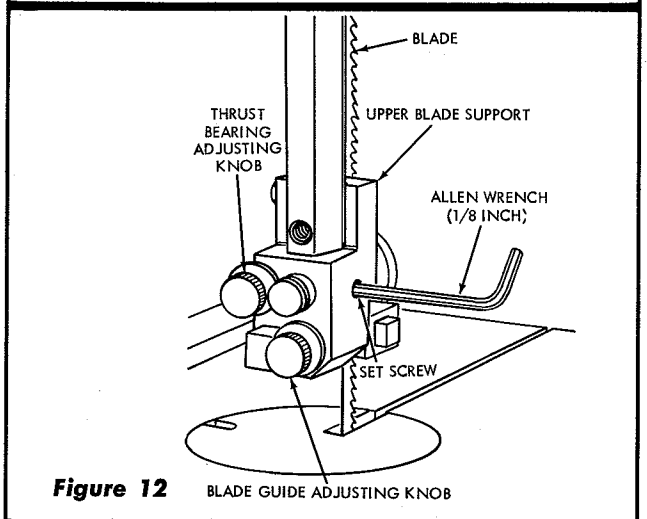
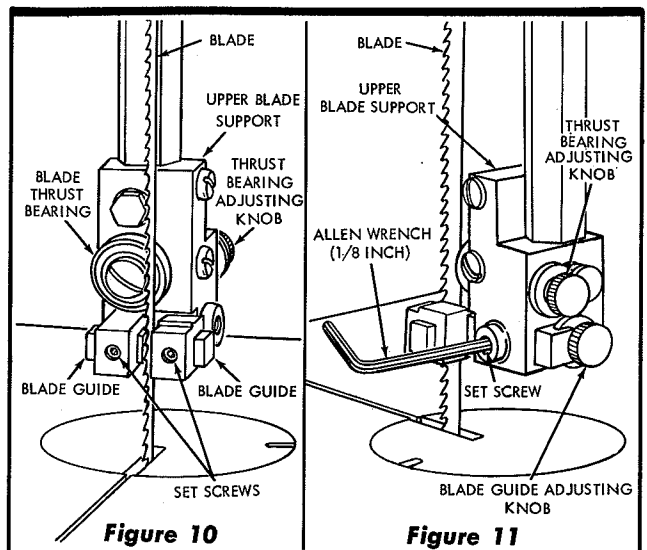
- a. Loosen the guide-bar lock knob and move the upper blade guide assembly up or down until it is two or three inches above the table top surface. Tighten guide-bar lock knob firmly and remove the table insert.
- b. Loosen the two guard attaching screws and remove the guard. The guard has mounting slots, making it unnecessary to remove these screws.
- c. Using a 1/8-inch hex-L wrench, loosen the two set screws that lock the blade guides in the upper blade guide assembly and position the guides so that both guides are clear of the blade. (See figure 10.) Tighten set screws just enough to hold the blade guides temporarily.
- f. Loosen the set screw (figure 12) and rotate the thrust bearing adjusting knob until it clears the blade approximately 1/16-inch.
- g. Grasp the saw pulley (figure 1) and rotate it counterclockwise (when facing pulley) several times to "spin" the wheels and make sure the blade remains in its normal tracking position.
- h. With the thrust bearing set screws (figure 12) loose, rotate the thrust bearing adjusting knob (figures 10 and 12) until the upper thrust bearing just touches the back edge of blade. Back off until a piece of newspaper stock can be slipped between the thrust bearing and blade. Tighten the set screw securely (figure 12).
- i. Loosen the set screw (figure 11) and rotate the blade guide adjusting knob until the ledge on right-hand portion of blade guide holder is approximately 1/64-inch rearward of gullets in the blade. (See figure 13.) Tighten the set screw securely (figure 11). With blade guide holders in this position, the blade guides will contact only the solid position of the blade.
- j. Loosen the two blade guide set screws (figure 10) just enough to permit blade guides to slip. Then move each guide in against the blade. Adjust until guides are as close to the blade as possible without binding it and tighten set screws securely to lock the guides.

**CAUTION:** Make sure the blade is not deflected when adjusting the blade guides.

- k. Rotate the saw pulley counterclockwise to make sure the blade is not binding in the guides and that it remains in the same position with respect to the guides and thrust bearing. Readjust blade guides and thrust bearing if necessary.

#### 6. LOWER BLADE GUIDE ADJUSTMENT.

- a. Loosen the thrust bearing set screw (figure 14) with a 1/8-inch hex-L wrench and rotate the thrust bearing adjusting knob (figure 15) until the thrust bearing clears the back edge of blade the thickness of newspaper stock. Tighten the set screw securely.
- b. Using a 1/8-inch hex-L wrench, loosen the lower blade guide locking set screw at the bottom of the



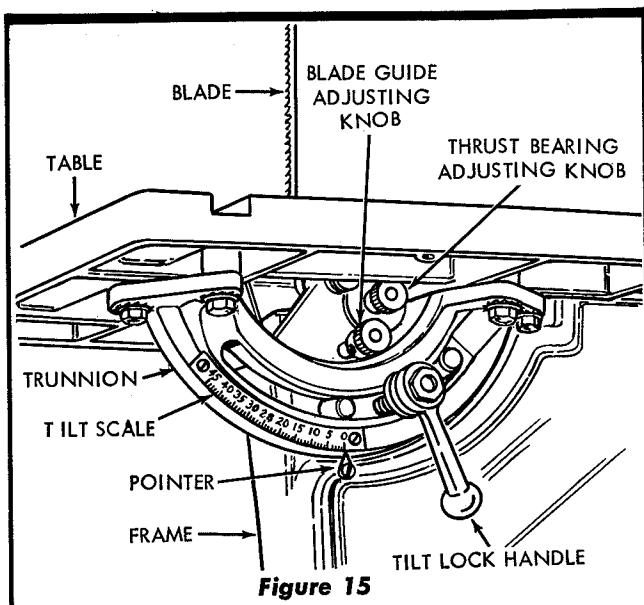


Figure 15

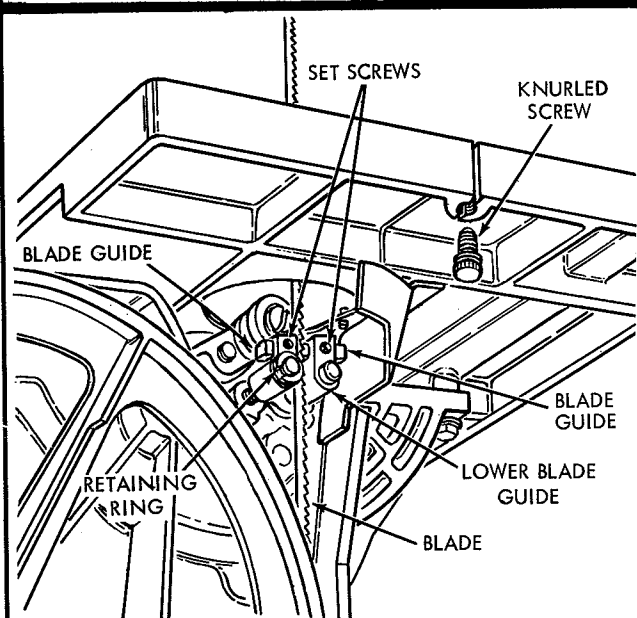


Figure 16

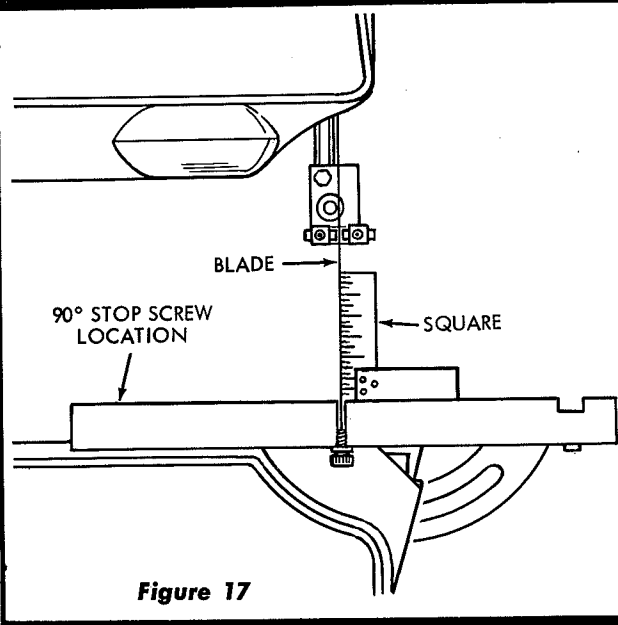


Figure 17

set screw recess (figure 14), and rotate the blade guide adjusting knob (figure 15) until the ledge on lower blade guide bar holder is approximately 1/64-inch rearward of the blade gullets. (Refer to figure 13 which shows the same dimension on the upper guide.) When correctly adjusted, the blade guides will contact the blade on the solid portion only, not on the teeth or the gullets. Tighten the set screw at the bottom of the recess securely and recheck to make sure tightening the screw did not alter the adjustment.

- c. Loosen the two lower blade guide set screws (figure 16) just enough to permit blade guides to slip. Then move each guide in against the blade until guides are as close to the blade as possible without binding it and tighten set screws securely to lock the guides in the holder. Make sure the blade is not deflected when adjusting the guides.
- d. Install the table insert.

**NOTE:** If the above adjustments are made accurately the saw blade will be free running when no cutting operations are being performed.

## 7. ADJUSTING SAW TABLE TO 90-DEGREE POSITION.

- a. Loosen the tilt lock handle (wrench) (figure 15) and move the saw table to a horizontal position (until rear edge of table touches the frame.) Tighten the tilt lock handle (wrench) just enough to keep the table "snug", but loose enough to be slipped with hand force.
- b. Loosen the guide-bar lock knob (figure 1) and raise the upper blade guide high enough to permit insertion of a small combination square or try square.
- c. Place the square on the table and touching the blade as shown in figure 17.
- d. Using a 5/32-inch hex-L wrench rotate the 90° stop screw, accessible through the hole in table top, until the table is square with the blade. (See figure 17.) Do not force the square against the blade enough to deflect it.
- e. After adjusting the table to the 90° position, tighten the tilt lock handle. Loosen the pointer attaching screw (figure 15), set the pointer to the exact "0" position on the tilt scale and tighten the pointer screw.
- f. Install the blade guard and tighten the two attaching screws.
- g. After completing all adjustments on the saw, check carefully by turning the drive pulley by hand several revolutions before operating the saw with power.

**NOTE:** After a few hours of operation, tighten the drive pulley set screw and motor pulley set screw.



# OPERATION

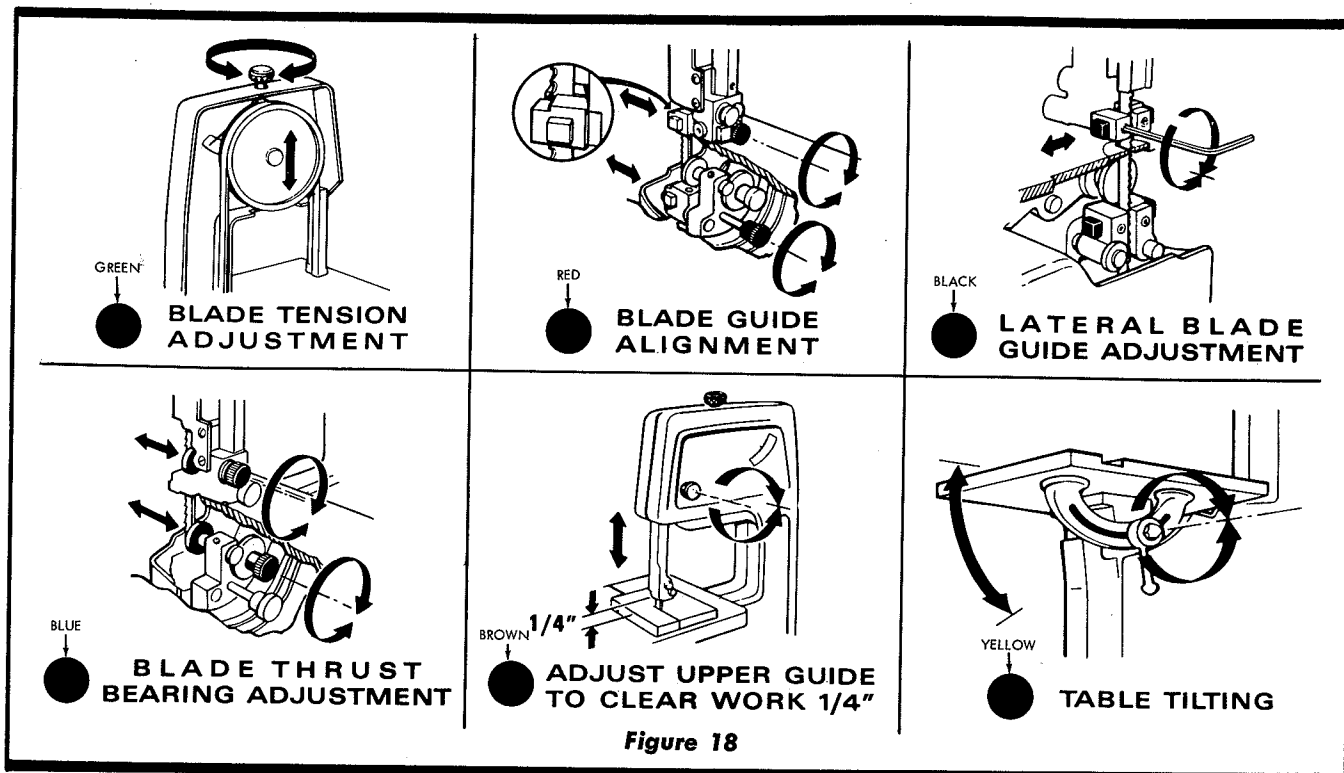


Figure 18

## COLOR CODED CONTROLS (See figure 18.)

In order to simplify operation of the band saw, the basic operating adjustments are keyed to their respective control or adjustments components with color applied directly to the item involved. These adjustments and color-codes are illustrated on the trim panel which is attached to the cover. The colors and operations they represent are as follows: (See figure 18.)

1. **GREEN** — Blade tension adjustments; made by rotating the green-coded tension adjusting knob until the pointer is aligned with the proper size blade being used, as indicated on the blade tension scale.
2. **RED** — Blade guide alignment; performed by loosening set screws and rotating the red-coded knobs to align blade guides with smooth surfaces of blade.
3. **BLACK** — Lateral blade guide adjustment; made by loosening set screws and positioning black-coded blade guides to provide correct lateral alignment of blade, along with proper blade running clearance.
4. **BLUE** — Blade thrust bearing adjustment; made by loosening set screws and blue-coded knobs to properly position the blade thrust bearings with respect to the blade.
5. **BROWN** — Work clearance adjustment; made by loosening the brown-coded guide-bar lock knob and moving the guide-bar up or down to provide proper work clearance between the table and upper blade guide. (Upper blade guide should be as close to work piece as possible.)
6. **YELLOW** — Table tilting adjustment; performed by loosening the yellow-coded tilt lock handle and positioning the table for the desired angle cut, as indicated by the tilt scale. (The tilt range is from 0° to 45°.)

**NOTE:** All set screws loosened in preceding instructions must be tightened before using the saw.

## OPERATING PROCEDURES

1. Hold the work piece firmly against the table surface during all sawing operations.
2. Do not force the work against the blade beyond the cutting capacity of the blade, as it will produce extreme difficulty in following the pattern layout.

**WARNING:** Disconnect the power cord from the power supply when adjusting the saw from one working position to another.

3. Always stop the saw before moving the upper blade guide.
4. Set the upper blade guide and guard as close to the work as possible to keep blade breakage to a minimum and protect the operator.
5. Use wax or tallow on blade when cutting non-ferrous (soft) metals, or other materials that tend to clog blade teeth.

## USE OF THE SANDING BELT

The sanding platen, table insert (with a wide slot for sanding operations) and their attaching parts (listed in the loose parts list under "Parts Identification"), permits the saw to be quickly converted for sanding operations.

### 1. ASSEMBLING THE SANDING TABLE INSERT.

(See figure 20.)

- a. Attach the alignment plate to underside of sanding table insert with the 6-32 x 7/16-inch screw, No. 6 split lockwasher and No. 6 nut. (See figure 20.)
- b. Leave the nut loose enough to permit alignment of platen, when installed.

### 2. INSTALLING SANDING PLATEN. (See figure 20.)

- a. Remove the blade guard by loosening the two attaching screws. Remove the saw table insert.

- b. Remove the frame cover by removing the four cover retaining knobs.
- c. Loosen the tension adjusting knob and remove the saw blade.
- d. Remove the upper blade guide assembly from the guide bar by removing the one hex-head attaching screw that secures the guide assembly to the guide bar. This screw is used to attach the sanding platen.
- e. Remove the lower guide assembly by loosening the set screw in the lower guide knob (figure 15), removing the knob and turning the lower guide adjusting screw until the guide assembly can be slipped off the pin.
- f. Loosen the set screw (figure 14) that secures the lower blade thrust bearing, rotate the thrust bearing adjusting knob (figure 15) to position the bearing rearward to its limit of travel. Tighten the set screw (figure 14) and remove the thrust bearing by removing the slotted pan-head screw at the center of the bearing.
- g. Position the sanding belt with sand side out and the splice in the direction shown in figure 19.

**NOTE:** If the belt is installed with the lap in the wrong direction, its useful life will be shortened materially.

- h. Place the sanding belt on the wheels and tighten the tension adjusting knob until the tension pointer is aligned with the "SANDING" mark on the blade tension scale. Rotate the saw pulley by hand to make sure the belt is tracking properly.
- i. Install the sanding table insert in the table opening.
- j. Attach the sanding platen to the guide-bar with the same hex-head screw that held the blade guide assembly. (See figure 20.)
- k. Loosen the guide-bar lock knob (figure 1) and lower the blade guide-bar until lower end of platen enters the opening in the center of table insert. (It may be necessary to lift the insert out of the recess to insert lower end of platen.)
- l. With sanding table insert in position, raise the guide-

bar until the U-shaped sanding belt guide (at lower end of platen) is just below the alignment plate attached to the underside of the table insert (See figure 20.)

- m. Loosen the hex-head screw at top of platen (in guide-bar) and the flat-head screw in table insert.
- n. Shift the platen at the top and the alignment plate at the bottom until the platen rests against the sanding belt from top to bottom (See figure 20). Tighten the hex-head screw to secure the platen at the top and the flat-head screw in the table insert to secure the platen at the bottom. Make sure it is still aligned with sanding belt.

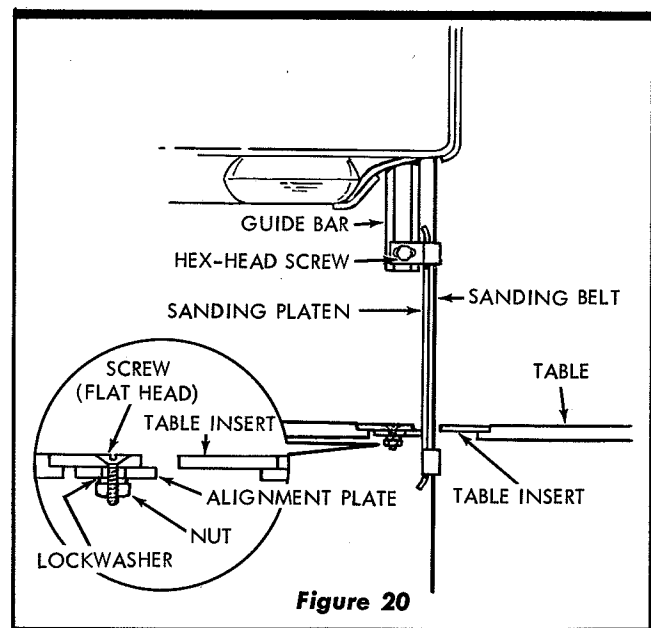
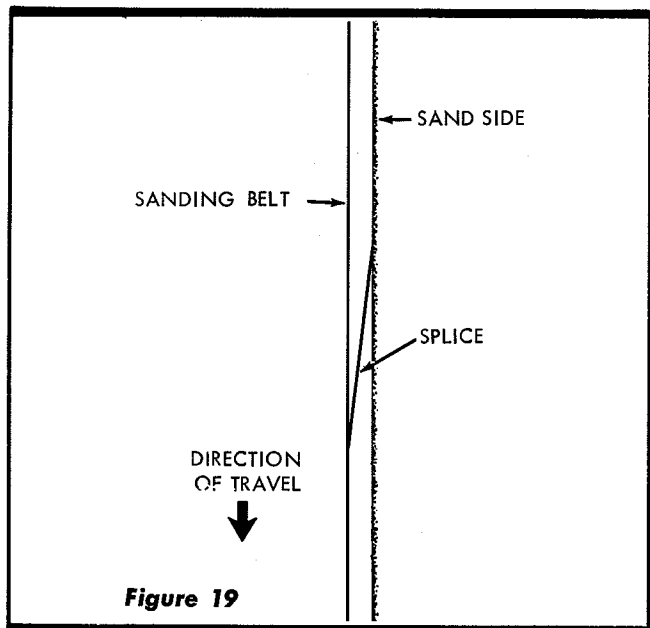
**NOTE:** Normally, aligning the platen with the taut sanding belt will square the platen to saw table with accuracy sufficient for most sanding operations. If greater accuracy is required, use a square positioned as shown in figure 17. Do not change the table adjustment — adjust the platen only.

- o. Spin the saw drive pulley to check for proper tracking of sanding belt.

## OPERATING ACCESSORIES

The following accessories are available for this band saw:

1. RIP FENCE.
2. MITER GAUGE.
3. SLO-SPEED CONVERTER. This accessory may be quickly attached to the saw to make available proper operating speeds for wood or metal cutting. Any of these items may be purchased from the nearest Sears Retail Store or Catalog Order House.
4. SANDING BELTS. This accessory item in various grades is also available at the nearest Sears Retail Store or Catalog Order House.



# CARE AND MAINTENANCE

## BLADE CARE

Several common causes of band saw blade breakage are described in the following paragraphs. A frequent check of saw adjustments and care exercised in operation will provide better work and greatly increase blade life.

1. Failure to bring the upper guide assembly down close to the workpiece produces blade distortion and accelerates breakage.
2. Excessive feed pressure causes the blade to ride hard which tends to start minute cracks in the blade, resulting in eventual breakage. A dull blade, or one that has been improperly set or sharpened, will require much greater feed pressure than a properly set and sharpened blade.
3. If blade guides are set too close to the blade and rub constantly, heat is increased and wear on guides will be excessive.
4. If blade guides are set to produce constant blade deflection, it will produce inaccurate work and shorten blade life.
5. Guides and blade will be damaged if the guides touch the teeth rather than the smooth areas of the blade.
6. If the blade is allowed to rust, either on the saw or in storage, the resultant pitting may be severe enough to produce breakage. Oil all blades before storing them and wipe off the oil before installing them on the saw.
7. One of the most common causes of blade difficulty is the practice of cutting curves that are too "sharp" to permit the blade to follow the curve without forcing. Turning the workpiece too rapidly, when cutting a radius, will bind and distort the blade.
8. The following table shows the approximate minimum diameters which should be cut with various width blades:

Blade Width	Minimum Diameter
1/8 .....	1/2
1/4 .....	2
3/8 .....	3
1/2 .....	5

## LUBRICATION

1. All ball bearings, including blade thrust bearings, are life-time packed with lubricant and require no additional lubrication.
2. Certain parts having moving and sliding contact with each other may require an occasional drop of light oil to insure smooth operation. Use oil sparingly to prevent collecting dust in vital areas.

## CLEANLINESS

The saw should be kept clean and free of accumulated sawdust and other foreign material. To prevent the table from rusting, it should be kept covered with a film of Sears "Stop-Rust" when not in use. This coating may be readily

removed with a cloth before using the saw. Other exposed steel parts may also be protected against rust with Sears "Stop-Rust".

## TIPS FOR MORE EFFECTIVE SAWDUST COLLECTION

1. Make sure the foam gasket and flat washer are properly installed. (See figures 7 and 8; refer to paragraph 9 under "ASSEMBLY PROCEDURE" and paragraphs 1 and 2, under "INSTALLATION.")
2. Check position of baffle, located beneath the saw table, to make sure it is positioned inside the frame. (Refer to figure 6 and paragraph 6 under "ASSEMBLY PROCEDURE.")
3. Use a shop-type vacuum connected to the dust elbow. Do not attach paper or cloth bag to the elbow.

## BELT GUARD

For maximum safety and protection use Sears Belt and Pulley Guard (Catalog No. 9-22242) and Base (Catalog No. 9-2224), available at Sears Retail Store or Catalog Order House. (See figure 21.) If the guard is used with a base other than the one shown, make sure the pulley and belt are enclosed in a similar manner.

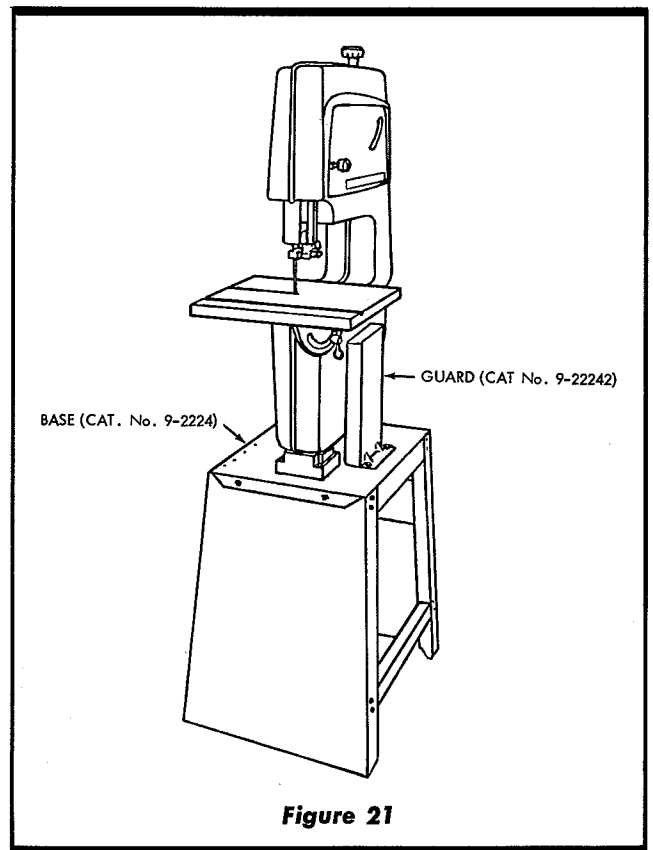


Figure 21

SEE PAGE 15 FOR TROUBLE SHOOTING CHART

**PARTS LIST FOR CRAFTSMAN 12-INCH BAND SAW  
MODEL NUMBER 113.24290**

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

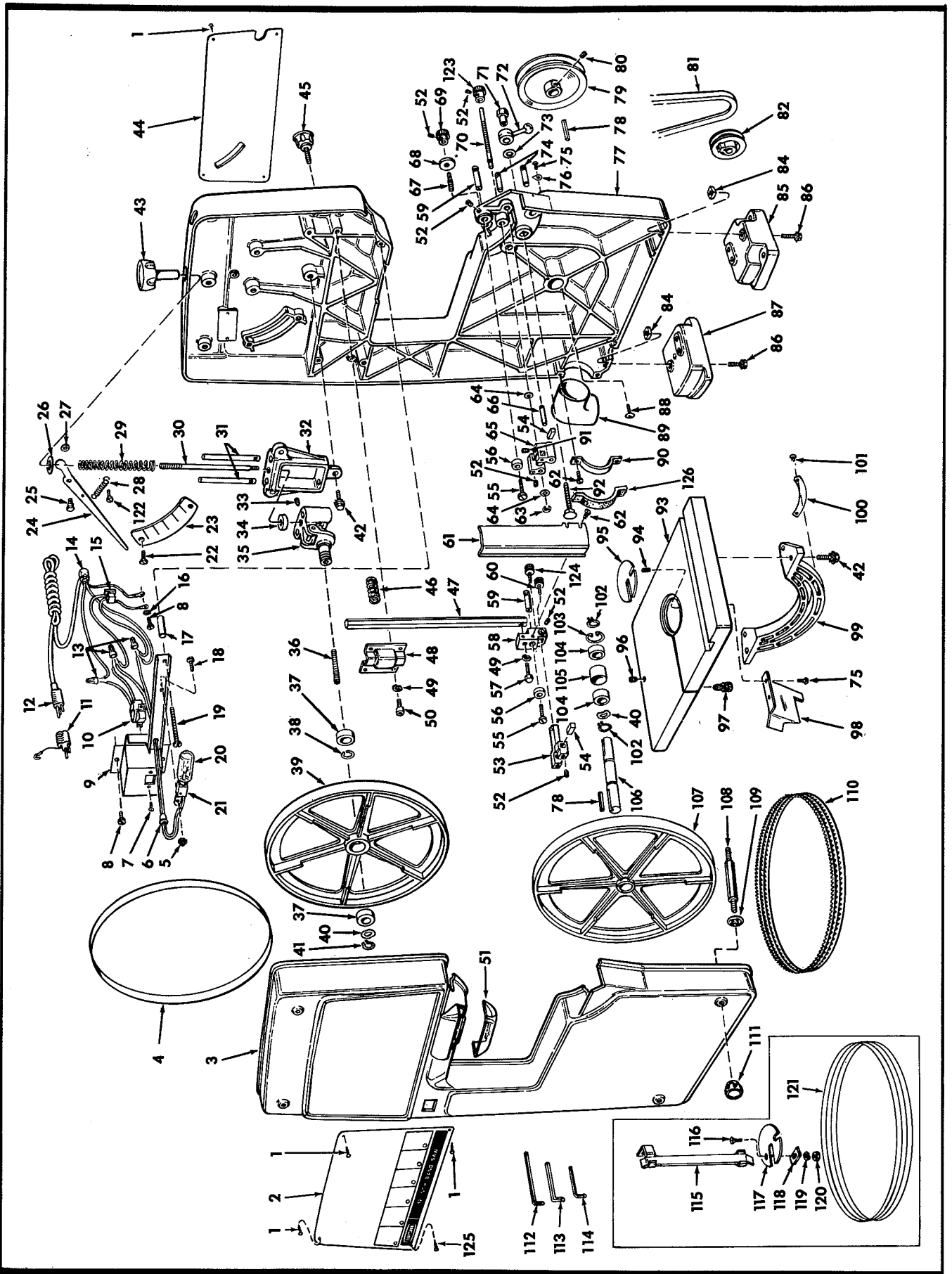
1. THE PART NUMBER.
2. THE PART NAME.
3. THE MODEL NUMBER 113.24290
4. THE NAME OF ITEM — 12-INCH BAND SAW.

Always order by Part Number — not by Key Number

Key No.	Part No.	Description
1	145372	Screw, Type U, Rd. Hd., No. 4 x 1/4"
2	69007	Panel, Front Trim
3	69008	Cover, Frame
4	41815	Tire
5	441253	Nut, Acorn No. 8-32
6	69009	Relief, Strain
7	436663	*Screw, Mach., Pan Hd., Slotted, No. 6-32 x 3/8"
8	192390	*Screw, Type F, Pan Hd., 1/4-20 x 3/8"
9	69010	Box Assy., Switch
10	69011	Switch
11	37568	†Adapter, Plug
12	69026	Cord Assembly
13	71046	*Connector, Wire
14	37875	Relief, Strain
15	69027	Outlet, Assembly
16	114604	*Lockwasher, External Tooth, 1/4"
17	69012	Spacer
18	9404365	Screw, Type 23, Pan Hd., No. 8-32 x 5/16"
19	60057	*Screw, Mach., Pan Hd., 1/4-20 x 1-1/4"
20	69013	*Bulb, Light, 115/125v. 25 watt, Double Contact, Bayonet Base, Appliance
21	69014	Socket
22	60189	*Screw, Type F, Flat Hd., Undercut, 1/4-20 x 7/16"
23	69015	Scale, Tension
24	69016	Pointer
25	69017	Pin, Pointer Pivot
26	60186	Washer, Plain, Stl., .507 x 1-1/4 x 1/8"
27	60089	Washer, Plain, .031 x 17/64 x 1/2"
28	69018	Spring, Pointer
29	69019	Spring, Wheel Tension
30	69020	Stud, Blade Tension
31	69022	Rod, Upper Wheel Guide
32	41426	Bracket, Upper Wheel Support
33	60187	Screw, Slotted Hd. Set., Brass Fl. Pt., 1/4-20 x 3/8"
34	69029	Bumper, Upper Wheel
35	69030	Guide Assy., Fulcrum
36	38524	Screw, Self-Locking
37	41818	Bearing, Ball

Key No.	Part No.	Description
38	41812	Ring, Retaining
39	69028	Wheel, Upper Drive
40	41711	Washer, Spring
41	38716	Ring, Retaining
42	453068	*Screw, Sems, Hex. Hd., 5/16-18 x 3/4"
43	69031	Knob Assy., Tension Adj.
44	69032	Panel, Rear Trim
45	69033	Knob Assy., 1-1/2"
46	69034	Spring, Guide-Bar
47	69035	Bar, Guide
48	69036	Support, Guide-Bar
49	115109	*Lockwasher, .109 x .062 x 1/4"
50	216278	*Screw, Cap, Socket Hd., 1/4-20 x 1/2"
51	69025	Lens
52	222386	*Screw, Set, Socket Hd., Fl. Pt., 1/4-20 x 1/4"
53	69038	Guide, Upper Blade
54	69039	Guide Blade
55	443507	*Screw, Mach., Pan Hd., 1/4-20 x 1/2"
56	69040	Bearing, Ball
57	9415477	*Screw, Mach., Hex., 1/4-20 x 7/8"
58	69041	Support, Upper Blade
59	69042	Sleeve, Thrust Bearing
60	69043	Knob, Upper Guide
61	69044	Guard
62	448033	*Screw, Mach., Pan Hd., No. 10-32 x 3/8"
63	38866	Ring, Retaining
64	60188	Washer, Plain, Brass, .319 x .562 x 1/16"
65	69045	Guide, Lower Blade
66	69024	Pin, Lower Guide Support
67	69046	Screw, Thrust Adjusting
68	69047	Washer
69	69048	Knob, Lower Guide
70	69049	Screw, Guide, Adjusting
71	69002	Nut, Trunnion Lock
72	38414	Wrench
73	60071	Washer, Plain
74	69021	Pin, Trunnion
75	9404377	*Screw, Type 23, Pan Hd., No. 10 x 5/16"
76	38724	Pointer, Tilt
77	69050	Frame Assy., (Includes Key Nos. 66 and 74)

**PARTS LIST FOR CRAFTSMAN 12-INCH BAND SAW  
MODEL NUMBER 113.24290**



**PARTS LIST FOR CRAFTSMAN 12-INCH BAND SAW  
MODEL NUMBER 113.24290**

Key No.	Part No.	Description	Key No.	Part No.	Description
78	30789	Key, Square	102	30783	Ring, Retaining
79	38450	†Pulley, 5" O.D. x 1/2" V-Groove, 5/8" Bore, Keyed (w/Set Screw)	103	38884	Ring, Retaining
80	9411963	*Screw, Set, Soc. Hd., Cup Pt., 5/16-18 x 12"	104	37161	Bearing, Ball
81	60146	†Belt, Vee (1/2 x 43")	105	69023	Spacer, Bearing
82	30646	†Pulley, 2-1/2" O.D. x 1/2" V-Groove, 5/8" Bore, Keyed (w/Set Screw)	106	69058	Shaft
84	120399	*Nut, Square, 5/16-18 x 9/16 x 7/32"	107	69059	Wheel, Lower Drive
85	69052	Foot, Right	108	69060	Stud, Cover
86	425338	*Screw, Sems, Hex. Hd., 5/16-18 x 1"	109	69061	Nut, Speed
87	69053	Foot, Left	110	41716	†Blade, Band Saw (1/4 x 80")
88	60151	*Screw, Mach., Truss Hd., Sl., 1/4-20 x 3/8"	111	69006	Knob Assembly, 1"
89	65013	Elbow	112	37911	†Wrench, Hex., "L", 3/16"
90	69004	Clamp, Tube	113	60096	†Wrench, Hex., "L", 5/32"
91	222410	Screw, Set, Socket Hd., Fl. Pt., 1/4-20 x 3/4"	114	37887	†Wrench, Hex., "L", 1/8"
92	109116	*Bolt, Carriage, 3/8-16 x 2"	115	69062	Platen, Sanding
93	69054	Table	116	133427	*Screw, Mach., Flat Hd., No. 6-32 x 7/16"
94	30274	Pin	117	69063	Insert, Table (Sanding)
95	69055	Insert, Table	118	69005	Plate, Sanding Alignment
96	60190	Screw, Self-locking, 5/16-18 x 3/8"	119	114601	*Lockwasher, No. 6 .047 x .031"
97	38794	Screw, Knurled	120	115997	*Nut, Hex., No. 6-32 x 5/8 x 7/64"
98	69003	Baffle	121	69037	†Belt, Sanding (1/2 x 80")
99	69057	Trunnion	122	273229	Screw, Tapping, 1/4-20 x 1/2", Hex. Washer Hd.
100	69056	Scale, Tilt	123	69064	Knob, Lower Guide
101	448001	*Screw, Type 23, Pan Hd., No. 6-32 x 1/4"	124	69065	Knob, Upper Guide
			125	189592	Screw, Type U, Rd. Hd., No. 4 x 1/8"
			126	None	Gasket, Foam
			—	69051	Operating Instructions and Parts List for Craftsman 12" Band Saw, Model 113.24290

\* Standard Hardware Item — May be purchased locally.

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

**BENCH POWER TOOL GUARANTEE**

We guarantee all 12-inch Band Saws to be free from defects in material and workmanship. When properly used, cared for and maintained, we will replace or repair at our option and install without cost to you, for a period of one (1) year from date of sale, any part which proves, upon our examination, to be defective under normal use. This guarantee doesn't apply to saws used in rental service.

# TROUBLE SHOOTING CHART

TROUBLE	PROBABLE CAUSE	REMEDY
<b>Blade moves back and forth when running or runs off.</b>	1. Not tracking properly.	1. Adjust for proper tracking (Refer to paragraph 2, under "Adjustments").
<b>Wheel tires come off.</b>	1. Excessive speed.	1. Make sure proper motor and pulley size are being used. (Refer to "Installation", under "Installation and Adjustments").
<b>Cannot make true 90° cuts.</b>	1. Table not square with blade.	1. Re-adjust, using combination square setting on table and against blade.
<b>Saw does not make true 45° cut when set at the 45° position.</b>	1. Pointer out of alignment. 2. Loose table mounting.	1. Adjust table as described in paragraph 7 under "Adjustments". 2. Check and tighten all table attaching screws. Recheck table for correct 90° stop position after tightening.
<b>Excessive blade breakage.</b>	1. Twisting of blade. 2. Improper adjustment of blade guides. 3. Cutting metals at too high blade speed, or stock that is too thick.	1. Cutting too small a radius. 2. Re-adjust (Refer to paragraphs 5 and 6 under "Adjustments"). 3. Speed reducer and proper metal cutting blade necessary. Use wax or tallow on blade.
<b>Wheel rubs against table recess.</b>	1. Lower wheel mounted incorrectly.	1. Check and correct wheel alignment. (Refer to paragraph 2, under "Adjustments").
<b>Upper blade guide does not move parallel to blade when raised or lowered.</b>	1. Guide bar out of alignment.	1. Loosen socket-head screws in guide bar support and shift the support (slightly). Tighten screws securely.
<b>Wheels strike ribs in cover.</b>	1. Wheels not correctly aligned.	1. Readjust (realign) wheels.

