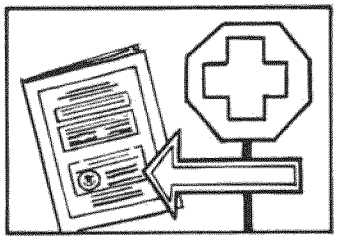
CRAFTSMAN

POWER TOOL SAFETY...AND YOU

3 MINUTES of required reading for the home Craftsman . . . whether this is your first purchase or you're an old hand at power tools.

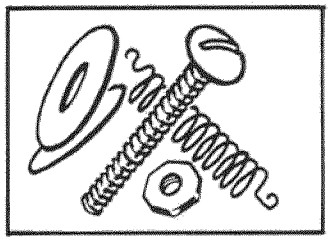
YOU'VE JUST BOUGHT A QUALITY SEARS TOOL. designed to give you many years of top performance and trouble-free operation. **It's also designed with safety in mind,** permitting you to use the tool without concern so long as certain basic rules are observed.

We'd like to call particular attention to some of the more **important rules** to follow for maximum enjoyment of your Sears power tools.



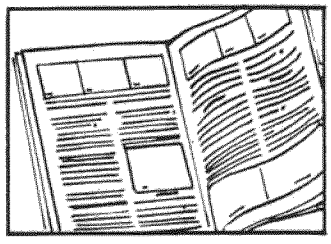
1. READ THE INSTRUCTION MANUAL . . .

completely • accurately.
Pay special attention to safety precautions and use of safety features.



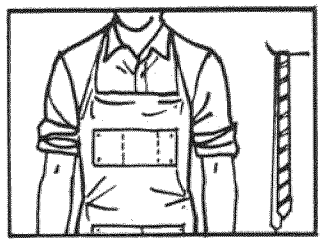
2. INSPECT THE POWER TOOL THOROUGHLY

Set up the machine according to instructions. Make certain all parts are included.



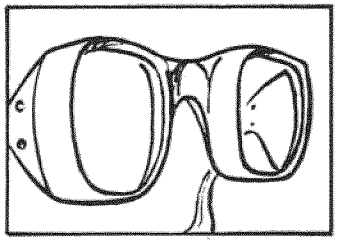
3. FOLLOW OPERATING INSTRUCTIONS CAREFULLY

They have been developed to insure correct procedure and prevent accidents.



4. DRESS PROPERLY FOR THE WORKSHOP

Get rid of loose clothing, roll up sleeves (or fasten securely), remove your tie, wear a snug-fitting shop apron.



5. WEAR SAFETY GLASSES

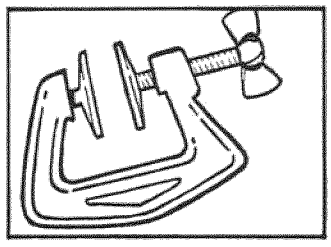
Safety glasses or eye shields are recommended for all power tool operations.

6. USE PROPER ELECTRICAL CONNECTIONS

Make certain proper voltage (110 or 220) is used. USE A GROUND WIRE; AND A SUITABLE PLUG, IF REQUIRED.

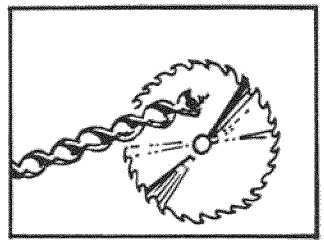
Check fusing requirements of the tool as outlined in the instruction manual.

Get in the habit of turning off the tool when not in use.



7. DOUBLE-CHECK HOLDING FIXTURES

Lock all clamps tightly.
Spin parts by hand to check against misalignment or looseness before turning on tool.

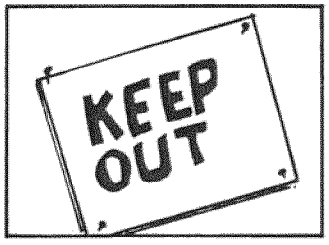


8. KEEP CUTTING TOOLS SHARP

Make certain blades, drills, cutters, etc., are in top shape. Dull tools can cause rough cuts, excessive chipping . . . and accidents.

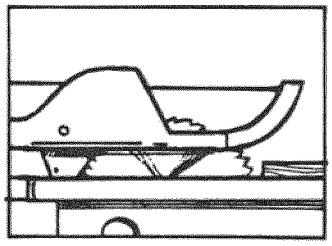
9. DON'T EXCEED THE LIMITS OF THE POWER TOOL

Abusing the power tool by doing work beyond its capacity reduces its life and increases the chance of injury to the operator. Watch especially the sizes of the work and feed rate.



10. KEEP SPECTATORS AWAY

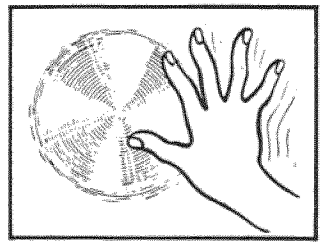
Curiosity and interest on the part of the family is fine, but avoid inspections when the power tool is running.



11. SAFETY GUARDS

Accessory safety guards are available for most tools. Use of these guards is highly recommended.

Keep protective caps on ends of exposed, rotating shafts.



12. AVOID AWKWARD HAND POSITIONS

Do not place hands in a position where a sudden slip could cause them to move into a cutting tool. Do not force work abnormally into any cutting tool.

THINK SAFETY *Carefully plan each operation before turning on tool*

ASSEMBLING AND ADJUSTING YOUR SAW

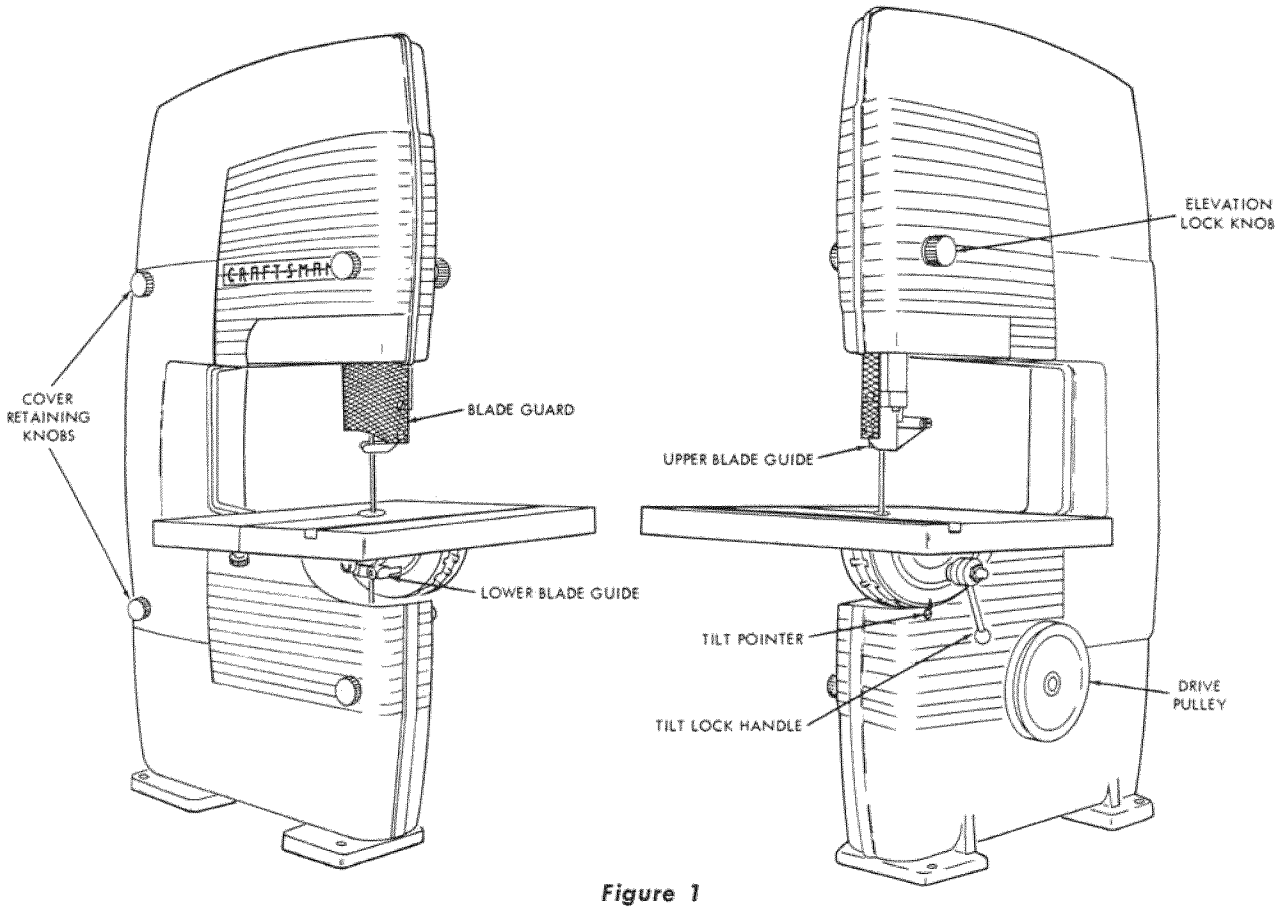


Figure 1

MOTOR AND BELT SPECIFICATIONS

1. **Motor.** A general-usage type motor of 1/2 horsepower, 1725 rpm is recommended for operating this band saw.

2. **Motor Drive Pulley.** This motor equipped with the supplied 2-inch diameter pulley will produce a saw arbor speed of approximately 640 rpm. This speed is recommended for general use with wood and materials of similar cutting nature.

3. **Special Pulleys.** Should you purchase a pulley of different diameter for special use, be sure to state that it should be for a 1/2-inch V-belt. The shaft diameter of the motor must also be provided.

4. **Belt.** A 1/2 x 43-inch V-belt is supplied with your band saw and will accommodate most applications. Should you require a special belt, measure around the outside of both motor and saw pulleys (not in pulley grooves) with a steel tape measure.

   NOTE: The motor position must be established before measuring for belt length required.

5. **Circuit Protection.** For protection of the power supply circuit, it is recommended that a 15 ampere fuse be installed in the line to the saw. Use a "Fustat", "Fusetron" or similar slow-blow type fuses.

   CAUTION: Be sure to ground the saw frame to a cold water pipe, or other effective ground.

ASSEMBLING YOUR SAW

In order to prevent damage during shipment, 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 drawing, figure 5 for index numbers.)

1. Saw blade (86).

2. Table and mounting bracket assembly consisting of the following items:
   a. Blade thrust roller (39).
   b. Lower saw guide holder (54).
   c. Hex nut—3/4-24 (63).
   d. Plain washer (64).
   e. Trunnion (52).
   f. Table (83).
   g. Hex nut—5/16-18 (32).
   h. Machine screw—5/16-18 x 1 in. (84).
   i. Table insert (68).
   j. Pointer (78).
   k. Machine screw—No. 8-32 x 1/4 in. round head (77).
   l. Table tilt lock handle (79).
   m. Trunnion lock nut (80).
   n. Thrust bearing bushing (43).
   o. Saw-guide pin (41).
   p. Trunnion support bracket (46).
   q. Trunnion (45).
   r. Machine screw—5/16-18 x 3/4 in., round Phil. head, with lockwasher (69).
   s. Guide-holder stud (51).
   t. Trunnion lock screw (50).
   u. Set-screw—1/4-20 x 1/4 in., slotted head (40).
   v. Upper saw guide holder (38).
   w. Leveling screw (67).

3. Bag of miscellaneous small parts consisting of the following:
   a. Knurled screw (85).
   b. Hex nut—5/16-18 (32).
   c. Hex wrench—5/32 in. (76).
   d. Machine screw—5/16-18 x 1 in., hex-head, with lock washer (47).
   e. Threaded stud (65).
   f. Lock washer—5/16 in. (66).

4. **ASSEMBLY PROCEDURE.**

(See figure 5 for index numbers.)

a. Remove the four cover retaining knobs (1) and slide the cover (2) off the studs. (See figure 1.)

CAUTION: Unscrew the leveling screw (67, figure 5), until the end is flush with the back side of trunnion support bracket (46).

b. Place the two mounting bolts (47) in the two holes of the trunnion support bracket (46) and mount the table (83) and trunnion support bracket (46) to the frame (82) as shown in figure 2. Leave these two bolts (47) loose enough to allow the entire assembly to be shifted.

c. Insert the threaded stud (65), through leveling screw (67) and thread it to bottom of tapped hole in the frame.

d. Place the lock washer (66) over the stud (65) and start the hex nut (32) on the stud. Tighten the nut to a snug fit. Tighten the two mounting bolts (47) to snug fit.

e. Tilt the table so the 90° stop screw (84) is resting on the trunnion support bracket (46). Lock the table (83) in this position with the table tilt lock handle (79) as shown in figure 1.

f. Drop the upper saw guide assembly (37) until blade guard clears the wheel. (See note in figure 5 for items that make up the upper saw guide, (37). Pull the blade cam handle (35) down to release the upper idler wheel (7).

g. Install the saw blade (with teeth pointing down and away from the saw blade guides). Apply tension to the blade by pushing the blade tension cam handle (35) upward.

h. Revolve the wheels, with tensioned blade in place, two or three full turns. Refer to paragraph under "Adjustments", "Tracking".

i. With an accurate square, resting on the table surface and to back edge of blade, square the table (83) and

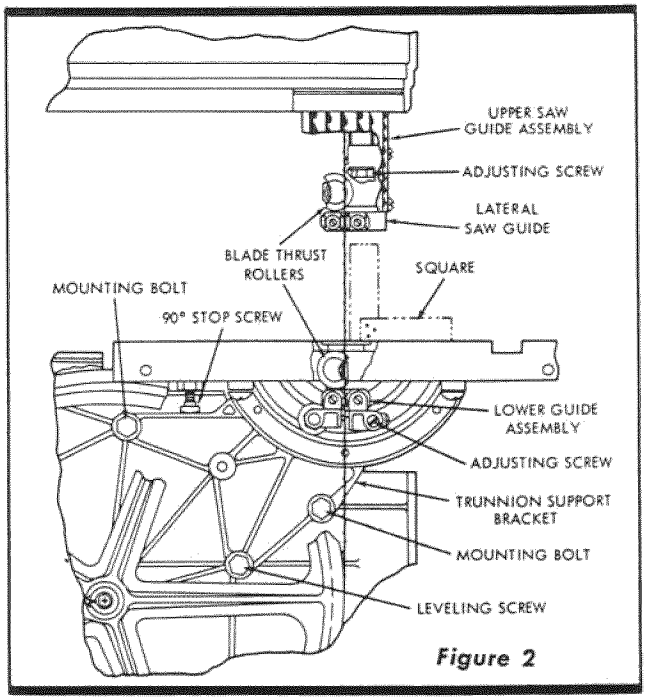


Figure 2

support bracket assembly with the saw blade by adjusting the leveling screw (67) in or out.

j. Lock the screw (67) in place with the hex nut (32). Finish tightening the two mounting bolts (47).

k. Recheck for proper squareness of table to saw blade and make any corrections that might be necessary.

l. Correct the squareness of table to side of blade (if necessary), by adjusting the stop screw (84). (See figure 2.)

m. Place the knurled screw (85) in the saw slot of table (83, figure 5.)

n. Before replacing the cover assembly (2), check the blade for "Tension" and "Tracking" as explained in the following paragraph entitled "Adjustments".

INSTALLATION

Three holes have been provided to secure the saw to the bench. There are two holes in the front foot on the outside of the saw. The rear foot has only one hole, which is accessible from inside the cover.

The motor may be installed either behind or below the saw.

ADJUSTMENTS

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

1. **Tension.** Proper tension for all blades recommended for use with this saw is a built-in feature and no further attention is required.

2. **Tracking.** The upper and lower wheels (58, and 7, figure 5) 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 lower wheel has become misaligned, the proper alignment may be accomplished as follows:

a. After installing the saw blade, and rotating the wheels a few turns, place a straight edge across the two wheels. (See figure 3.)

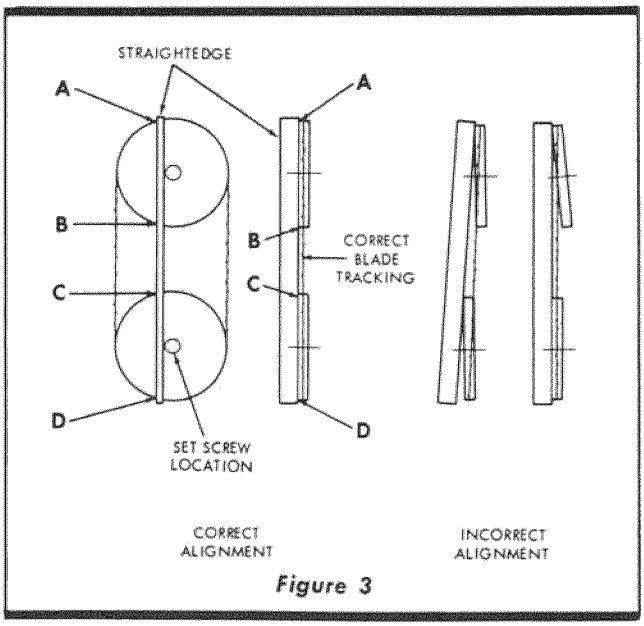


Figure 3

b. If wheels are in correct alignment, the straight edge will contact the wheels at four points, A, B, C and D.

c. If any misalignment exists, loosen the set screw (57, figure 5) in the lower wheel and, with the straight-edge contacting points C and D on the lower wheel, adjust it in or out until the straightedge contacts points A and B of the upper wheel.

d. If only one point A or B is contacted, adjust the self-locking blade alignment screw (19) to tilt the upper wheel until all four points are in contact.

e. After proper alignment has been accomplished, tighten the set screw (57) to secure the lower wheel on the arbor shaft (60).

NOTE: If a 1/8-inch width blade is used, the alignment screw (19) will require further adjustment.

3. **Guides.** Saw guide assemblies are provided both above and below the table in order to support the blade against lateral thrust and direct thrust. The upper saw guide assembly must operate so the distance from the back of the saw blade to the thrust roller remains the same throughout the entire up and down movement of the assembly.

a. If an adjustment is necessary, remove the cover and turn the upper saw guide bar adjusting screw, either in or out as required. (See figure 4.) When adjustment is completed lock the adjusting screw lock nut to maintain the adjustment.

b. Adjust the saw guide assemblies so the lateral saw guides (when adjusted) will contact the blade on the solid portion only, not on the teeth or valleys between teeth. (See figure 2.) This is accomplished by loosening the saw guide assembly adjusting screws and moving the saw guide assemblies forward or backward as required. When the adjustment is correct, lock the saw guide assemblies in position.

c. Set the lateral saw guides as close as possible to the blade without binding the blade at any point or deflecting it sidewise. Lock the set screws securing the lateral saw guides when the adjustment is correct.

d. The blade thrust rollers should be set the thickness of a piece of newspaper from the back edge of the blade. (See figure 4.) Using a screwdriver, turn the the bearing holder in or out until the roller is in correct position. The blade should touch these rollers only when cutting, not when saw is running free.

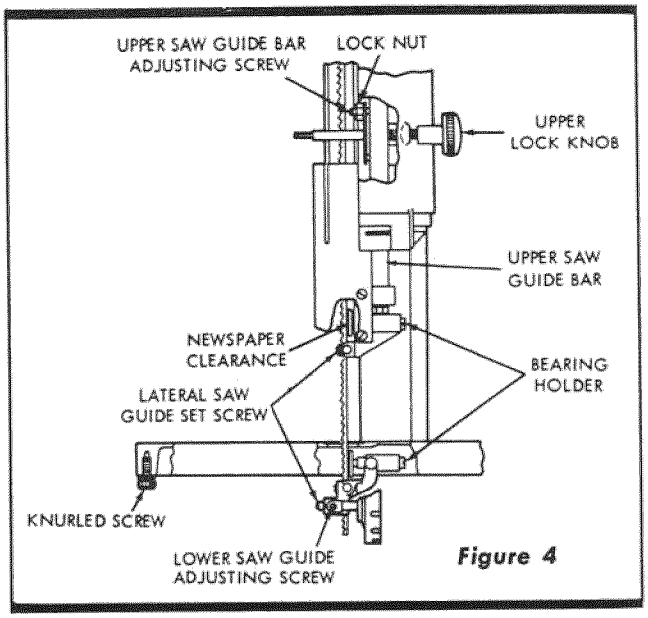


Figure 4

e. The above adjustments should result in a free running saw blade when no cutting operations are being performed.

f. The table should be square with the blade and, at the same time, the pointer should indicate zero on the scale. If a correction is necessary, it may be made by placing an accurate square on the table surface and against the saw blade. (See figure 2.) Adjust the 90° stop screw until the adjustment is correct.

g. The table tilt pointer may now be readjusted to the zero mark on the scale by loosening the screw which holds the pointer to the saw. (See figure 1.)

h. After completing all adjustments on the saw, check carefully by turning the mechanism by hand several revolutions before operating the saw with power.

NOTE: After a few hours of operation, tighten all pulley set screws.

OPERATION

1. **Controls.** The operator should become familiar with all controls before operating the saw. A little time spent in this effort will protect the saw and insure operational safety. (See figures 2 and 4.)

a. **The table tilt lock handle** — locks the table in any position with the saw blade from 90° to 45°.

b. **The table tilt pointer** — indicates the table angle on the calibrated trunnion scale.

c. **The blade guides** — back up the blade for both lateral and direct thrust.

d. **The blade guide elevation lock knob** — controls the upper assembly in relation to table surface for various work piece thicknesses.

e. **The blade alignment screw** — provides a means of tilting the upper wheel for correct saw blade tracking.

f. **The blade tension cam** — (35, figure 5) provides a quick and easy means for changing saw blades. Pull the cam handle down to release the upper wheel and loosen the saw blade. Push the cam handle up to reposition the wheel and tighten the saw blade.

2. **Operating Procedure.**

a. Hold the work piece firmly against the table surface during all cutting operations.

b. 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.

3. **Safety During Operation.**

CAUTION: Always disconnect input cable from power supply when adjusting the saw, from one working position to another.

a. Always 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.

b. Always stop the saw before moving the blade guide.

4. **Operating Accessories.** The following accessories are available for this band saw.

a. Rip fence.

b. Miter gage.

c. Slo-speed converter. This accessory may be quickly attached to your saw to make available proper operating speeds for wood or metal cutting. Any of these items may be purchased from your nearest Sears Retail Store or Catalog-Order House.

CARE AND MAINTENANCE

1. **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 reward you with greatly increased blade life and service.

a. Failure to bring the upper guide assembly down close to the work piece allows distortion of the blade which encourages breakage.

b. Excessive feed pressure causes the blade to ride hard on the thrust rollers, producing cracking and eventual breakage. A dull blade, or one that has been improperly set or sharpened will require much greater feed pressure than a good, sharp, properly set blade.

c. If the lateral guides are set too close to the blade and rubbing constantly, or causing blade deflection, the blade life and service are shortened considerably.

d. Both of the guides and blades will be damaged if the guides touch the teeth rather than the smooth sides of the blade.

e. A poor weld where the blade ends are joined, or a weld that is improperly dressed leaving a bump, is often the cause of short blade life.

f. 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; wipe off the oil before installing them on the saw.

g. Finally, one of the most common causes of blade difficulty is the practice of cutting too sharp a radius, or turning the work piece too fast when cutting a radius, thus binding or twisting the blade.

h. 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

2. **Lubrication.**
A special double row ball bearing, built into the drive shaft, and two single row ball bearings in the idler wheel have been packed with lubricant and sealed at the factory. They require no further attention.

The blade thrust rollers should be lubricated occasionally. (See figure 2, for locations of these rollers.) Other moving and sliding parts such as the guide slide bar (15, figure 5) and table trunnions (52 and 45) may require occasional lubrication to maintain smooth operation.

3. **Cleanliness.** The saw should be kept clean and free of accumulated saw dust 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. Many other unpainted (or unplated) areas may also be protected against rust with Sears "Stop-Rust."

TROUBLE SHOOTING CHART

TROUBLE	PROBABLE CAUSE	REMEDY
Blade moves back and forth when running.	Not tracking properly.	1. Adjust tilt of upper wheel with screwdriver. 2. Make sure lower wheel is in line with upper wheel, use straightedge.
Wheel tires come off.	Excessive speed.	Make sure proper motor and pulley size are being used.
Can not make true 90° and 45° cuts.	Stop pin out of adjustment.	Re-adjust, using combination square setting on table and against blade.
Can not make 90° cut after previous adjustment has been made.	Upper and lower saw guide pins (one set above and one below) are out of line with each other.	Back off all four pins (with blade under tension, re-adjust each pin until it just clears side of saw blade and retighten).
Table assembly loose.	Loose mounting bolts.	Check bolts holding trunnion and table to frame.
Excessive blade breakage.	1. Twisting of blade. 2. Improper adjustment of side guides. 3. Cutting of metal materials.	1. Cutting too small a radius. 2. Readjust as previously outlined. 3. Speed reducer and metal cutting blade necessary.

PARTS LIST FOR CRAFTSMAN BAND SAW
12-INCH, MODEL NO. 113.24261

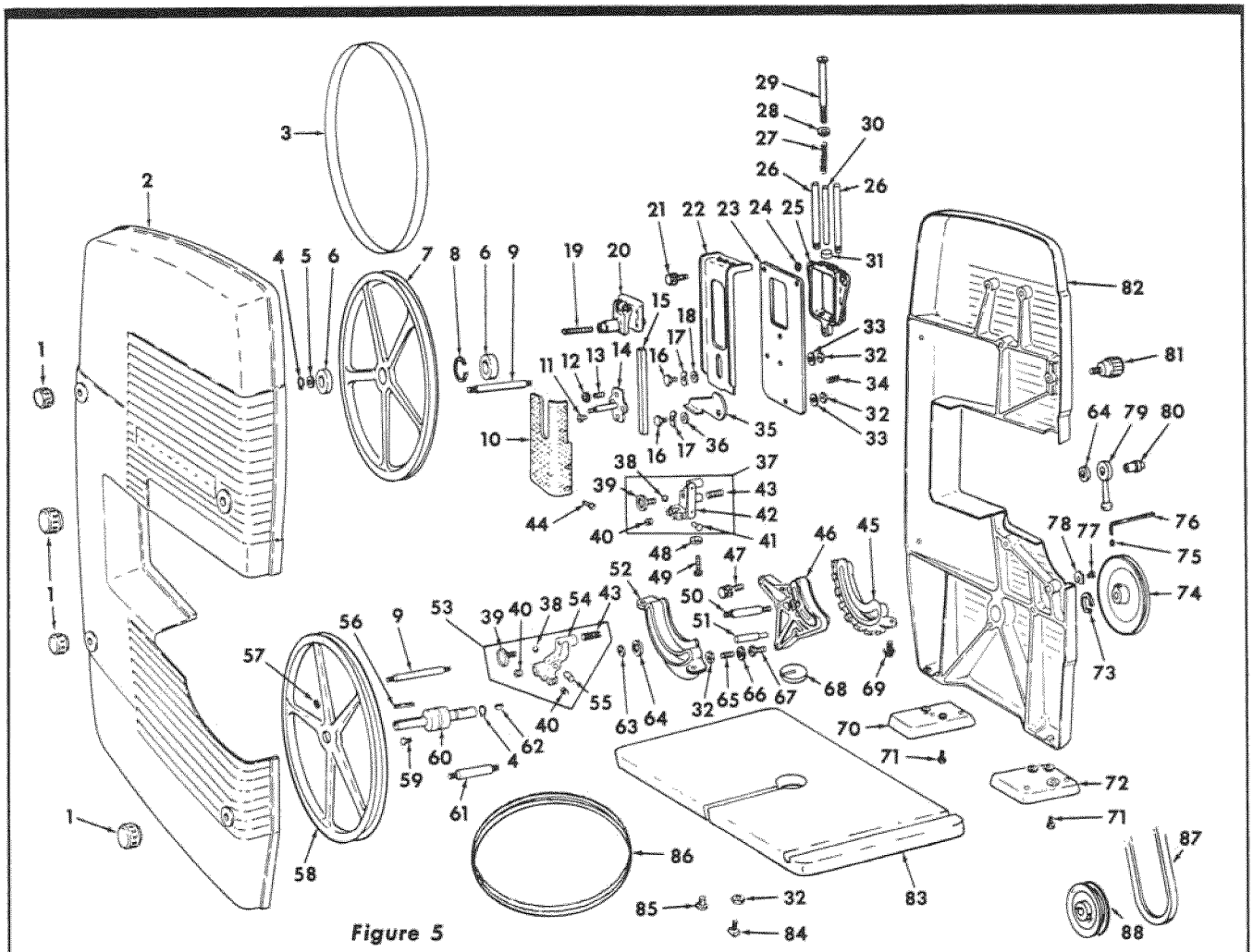


Figure 5

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 — 113.24261
4. THE NAME OF ITEM — 12-INCH BAND SAW

Always order by Part Number — not by Key Number

Key No.	Part No.	Description
1	41638	Knob
2	41510	Cover Assembly
3	41815	Tire
4	38716	Ring, Retaining
5	41711	Washer, Spring
6	41818	Bearing, Ball
7	41312	Wheel, Idler
8	41812	Ring, Retaining
9	41624	Stud, Cover — Left
10	41728	Guard
11	9407635	*Screw, Mach., 1/4-20 x 3/8, Bind Hd., Slotted Hd.
12	134551	*Nut, Hex., 1/4-20
13	181042	*Screw, Headless, 1/4-20 x 1/2, Slotted
14	41530	Stud Assy., Cover — Upper Right

Key No.	Part No.	Description
15	41617	Bar, Saw Guide
16	41632	Bolt, Shoulder
17	38782	Washer, Spring
18	60140	*Washer, Plain, 29/64 I.D. x 3/4 O.D. x 16 Ga.
19	38524	Screw, Self-Locking
20	41101	Fulcrum Assy., Upper Wheel
21	425340	*Screw, Mach., 5/16-18 x 1-1/4, Hex. Hd., w/Int. Tooth L/washer
22	41723	Bracket, Tensioner Slide
23	41722	Bracket, Tensioner Support
24	41637	Spacer
25	41426	Bracket, Upper Wheel Support
26	41631	Rod, Upper Wheel Guide
27	41822	Spring
28	120393	*Washer, Plain, 11/32 I.D.

Key No.	Part No.	Description
29	137654	*Screw, Mach., 5/16-18 x 5-1/2, Slotted Rd. Hd.
30	41725	Spacer, Blade Tensioner
31	41823	Bumper
32	134556	*Nut, Hex., 5/16-18
33	60141	*Washer, Plain, 11/32 I.D. x 1-1/16 O.D. x 1/16
34	41816	Spring, Guide Bar Tension
35	41724	Cam, Blade Tension
36	60142	*Washer, Plain, 29/64 I.D. x 1-1/8 O.D. x 20 Ga.
37	41107	Guide Assembly, Upper
38	453568	Ball, 7/32 Dia.
39	18232	Roller, Blade Thrust
40	142620	*Screw, Set, 1/4-20 x 1/4, Slotted
41	41636	Pin, Saw Guide
42	41429	Holder, Upper Saw Guide
43	41635	Bushing, Thrust Bearing
44	9407608	*Screw, Mach., No. 10-24 x 3/8, Bind Hd.
45	41150	Trunnion
46	41433	Bracket, Trunnion Support
47	425338	*Screw, Mach., 5/16-18 x 1, Hex. Hd., w/Int. Tooth L/washer
48	60143	*Washer, Plain, 17/64 I.D. x 19/32 O.D. x 18 Ga.
49	175519	Screw, Thread Cutting, 1/4-20 x 1-1/4, Flat Hd.
50	41616	Stud, Guide Holder
51	41621	Screw, Trunnion Lock
52	41417	Trunnion
53	41106	Guide Assy., Lower
54	41428	Holder, Lower Saw Guide
55	41636	Pin, Saw Guide
56	38831	Key, Square
57	102582	*Screw, Set, 5/16-18 x 1/2, Socket Hd., Cup Pt.
58	41311	Wheel, Lower
59	137952	*Screw, Mach., 1/4-20 x 3/8, Slotted Truss Hd.
60	41819	Bearing
61	41625	Stud, Cover — Lower Right
62	106751	Key, Woodruff No. 606
63	179319	*Nut, Hex., 3/8-24
64	60144	*Washer, Plain, 25/64 I.D. x 3/4 O.D. x 1/8
65	41639	Stud, Threaded
66	120214	Washer, Lock, Med., 5/16 S.A.E., Stl.
67	41642	Screw, Leveling
68	38416	Insert, Table
69	9414972	*Screw, Mach., 5/16 x 18 x 3/4, Cross Recess Truss. Hd., w/Int. Tooth L/washer
70	41219	Foot, Rear
71	187993	Screw, Mach., 5/16-18 x 3/4, Hex. Hd., w/Ext. Tooth L/washer
72	41218	Foot, Front
73	41715	Ring, Retaining
74	38450	**Pulley, 5" O.D. x 1/2 V-Groove x 5/8 Bore, Keyed, (w/Set Screw)
75	115321	*Screw, Set, 5/16-18 x 5/16, Socket Hd., Cup Pt.
76	60145	*Wrench, Hex. 5/32
77	193257	*Screw, Mach., No. 8-32 x 1/4, Slotted Pan Hd.
78	18922	Pointer
79	38414	Handle, Table Tilt Lock
80	38417	Nut, Trunnion Lock
81	41720	Knob and Stud Assembly
82	69000	Frame
83	41217	Table
84	109165	*Bolt, Mach., 5/16-18 x 1, Sq. Hd.
85	38794	Screw, Knurled
86	41716	**Blade, Band Saw (1/4 x 80" Long)
87	60146	Belt Vee
88	62023	Pulley
	69001	Instructions and Parts List

* Standard Hardware Item — May be purchased locally.

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

CRAFTSMAN BENCH POWER TOOL GUARANTEE

We guarantee all Craftsman 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 examinations, to be defective under normal use. This guarantee doesn't apply to Band Saws used in rental service.

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

MODEL NUMBER 113.24261

The model number will be found on a plate attached to your saw, on the back cover. Always mention this model number when communicating with us regarding your Band Saw or when ordering 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 113.24261
4. The NAME of item — BAND SAW

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

PROTECTIVE Sears Care MAINTENANCE

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

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