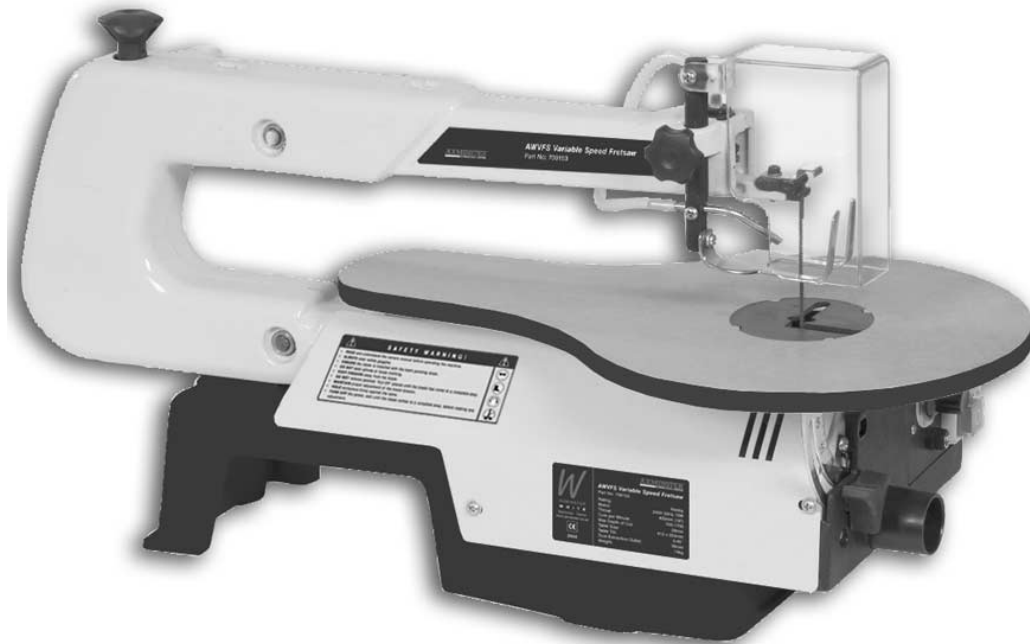


## **AWVFS Variable Speed Scroll Saw**



Axminster Tool Centre,  
Unit 10 Weycroft Avenue, Axminster, Devon EX13 5PH

**[www.axminster.co.uk](http://www.axminster.co.uk)**

# General Safety Rules



**"READ ALL INSTRUCTIONS"** Failure to follow the safety rules listed below and other basic safety precautions may result in serious personal injury.

## Work Area

### KEEP CHILDREN AWAY

Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.

### KEEP WORK AREAS CLEAN

Cluttered areas and benches invite accidents.

### WORKSHOP CHILD-PROOF

With padlocks, master switches.

### AVOID DANGEROUS ENVIRONMENTS

Don't use power tools in damp or wet locations. Keep work area well lit. Do not expose power tools to rain. Do not use the tool in the presence of flammable liquids or gases.

## Personal Safety

### KNOW YOUR POWER TOOL

Read and understand owner's manual and labels affixed to the tool. Learn its application and limitations as well as the specific potential hazards peculiar to this tool.

### DON'T OVERREACH

Keep proper footing and balance at all times.

### STAY ALERT

Watch what you are doing. Use common sense. Do not operate tool when you are tired. Do not operate while under medication or while using alcohol or other drug.

### DRESS PROPERLY

Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.

### USE SAFETY GLASSES

Also use face or dust mask if cutting operation is dusty.

### GUARD AGAINST ELECTRIC SHOCK

Prevent body contact with grounded or damp surfaces while operating this tool. For example: pipes, radiators, ranges, refrigerator.

### DISCONNECT TOOLS FROM POWER SOURCE

When not in use, before servicing, when changing blades, bits, cutters, etc.

### KEEP GUARDS IN PLACE

In working order, and in proper adjustment and alignment.

### REMOVE ADJUSTING KEYS AND WRENCHES.

When not in use, before servicing, when changing blades, bits, cutters, etc.

### AVOID ACCIDENTAL STARTING

Make sure the switch is in the "OFF" position before starting.

### GROUND ALL TOOLS

This tool is equipped with an approved 3 - conductor cord and a 3 prong grounding type plug to fit the proper grounding type receptacle. The green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal.

### NEVER STAND ON TOOL OR ITS STAND

Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted. Do not store materials on or near the tool such that it is necessary to stand on the tool or its stand to reach them.

### CHECK DAMAGED PARTS.

Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function. Check for alignment of moving parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly replaced.



All repairs, electrical or mechanical,

should be attempted only by

trained repairmen. Contact the nearest Local Factory Service Center, Authorized Service Station or other competent repair service.

**"SAVE THESE INSTRUCTIONS"**

# Additional Safety Rules

## Tool Use

### DO NOT FORCE TOOL

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

### USE THE RIGHT TOOL

Don't force small tool or attachment to do the job of a heavy duty tool. Don't use tool for purpose not intended—for example, don't use a circular saw for cutting tree limbs or logs.

### SECURE WORK

Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate the tool.

### NEVER LEAVE TOOL RUNNING UNATTENDED

Turn power off. Don't leave tool until it comes to a complete stop.

## Tool Care

### DO NOT ALTER OR MISUSE TOOL

These tools are precision built. Any alteration or modification not specified is misuse and may result in dangerous conditions.

### AVOID GASEOUS AREAS

Do not operate electric tools in gaseous or explosive atmosphere. Motors in these tools normally spark and may result in a dangerous condition.

### MAINTAIN TOOLS WITH CARE

Keep tools sharp and clean for better and safer performance. Follow instructions for lubrication and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean and free from oil and grease.

**⚠ WARNING** Before connecting the tool to a power source ( receptacle, outlet, etc. ), be sure voltage supplied is the same as that specified on the nameplate of the tool. A power source with a voltage greater than that specified for the tool can result in serious injury to the user, as well as damage to the tool. If in doubt, **DO NOT PLUG IN THE TOOL**. Using a power source with a voltage less than the nameplate rating is harmful to the motor.

**⚠ WARNING** For your own safety, do not operate your scroll saw until it is completely assembled and installed according to the instructions... and until you have read and understood the following.

1.General Safety Rules .....	2-4
2.Motor Specification .....	6
3.Getting to know your scroll saw .....	8,9
4.Operation Adjustments .....	10
5.Basic Scroll Saw Operation .....	11-13
6.Maintenance Your Scroll Saw .....	14

### 7.STABILITY OF SAW

Your scroll saw must be bolted securely to a stand or workbench. In addition, if there is any tendency for the scroll saw to tip over or move during certain operations, such as cutting long, heavy boards, bolt your scroll saw stand or workbench to the floor.

### 8. LOCATION

This scroll saw is intended for indoor use only.

### 9. P ROTECTION: Eyes, hands, face, ears and body.

**⚠ WARNING** TO AVOID BEING PULLED INTO THE BLADE...

**DO NOT WEAR:**Loose Fitting Gloves  
Necktie  
Loose Clothing Jewelry

### DO TIE BACK LONG HAIR ROLL LONG SLEEVES ABOVE ELBOWS

a. If any part of your saw is missing, malfunctioning, has been damaged or broken. . . such as the motor switch, or other operating control, a safety device or the power cord. . . cease operating immediately until the particular part is properly repaired or replaced.

b. Do not cut piece too small to hold by hand. **HINT:** When making a very small cutout, always secure the workpiece to a scrap piece of plywood with double faced tape. This way, the work is supported and your fingers are away from the blade.

c. Never turn your scroll saw on before clearing the table of all objects( tools, scraps of wood, etc.) except for the workpiece and related feed or support devices for the operation planned.

# ***Additional Safety Rules***

d. Avoid awkward hand positions where a sudden slip could cause a hand to move into the blade.

- **ALWAYS** adjust the drop foot to just clear the workpiece to protect the operator, keep blade breakage to a minimum and provide maximum support for blade.

- Always adjust blade tension correctly.

- The scroll saw should cut on the down stroke. Always make sure blade teeth are oriented downward toward table.

- When cutting a large piece of material, make sure it is supported at table height.

- Hold the work firmly against the table.

- Do not feed the material too fast while cutting. Only feed the material fast enough so that the blade will cut. Keep fingers away from the blade.

- Use caution when cutting off material which is irregular in cross section – it could pinch the blade before the cut is completed. A piece of molding, for example, must lay flat on the table and not be permitted to rock while being cut.

- Use caution when cutting off round material such as dowel rods or tubing. They have a tendency to roll while being cut, causing the blade to "bite".

e. Never leave the scroll saw running unattended. Turn the Saw OFF, make sure the saw has come to a complete stop, and then remove plug from power supply before leaving the work area.

f. Do not perform layout, assembly or setup work on the table while the cutting tool is operating.

g. Turn saw off and remove plug from power supply outlet before installing or removing an accessory attachment.

## **9. THINK SAFETY**

**SAFETY IS A COMBINATION OF OPERATOR COMMON SENSE AND ALERTNESS AT ALL TIMES WHEN THE SCROLL SAW IS BEING USED.**

**⚠ WARNING** Do not allow familiarity (gained from frequent use of your scroll saw) to become commonplace. Always remember that a careless fraction of a second is sufficient to inflict severe injury.

**⚠ WARNING** The operation of any power tool can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety goggles that comply with ANSI Z87.1 (shown on Package) before commencing power tool operation.



**NOTE AND FOLLOW THE SAFETY WARNINGS AND INSTRUCTIONS THAT APPEAR ON THE PANEL ON THE RIGHT SIDE OF THE SCROLL SAW HOUSING:**

# **Table of Contents**

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# Unpacking and Checking Contents

**⚠ WARNING** To avoid injury from unexpected starting or electrical shock do not plug the power cord into a source of power. This cord must remain unplugged whenever you are working on the scroll saw.

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

**⚠ WARNING** If any parts are missing, do not attempt to operate scroll saw, plug in the power cord or turn the switch on until the missing parts are obtained and are installed correctly.

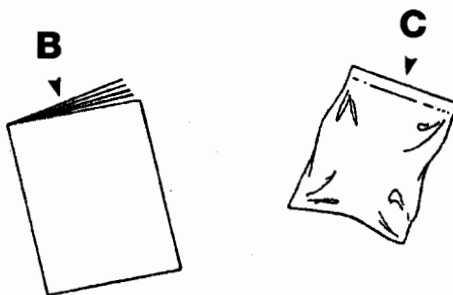
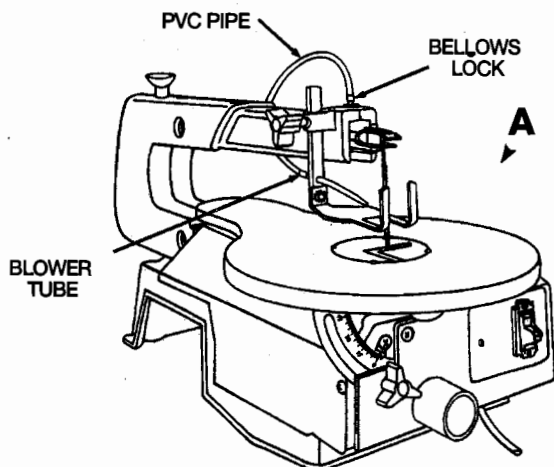
2. If you wish, you may apply a coat of paste wax to the table to allow the workpiece to slide easily across the table surface. Wipe the table thoroughly with a clean dry cloth.

## Table of Loose Parts

ITEM	DESCRIPTION	QTY.
A	16" Scroll Saw	1
B	Operating Guide	1
C	Loose Parts Bag (containing)	1
	Allen Wrench (4mm)	1
	Blades	2
	Blade Adapters	2
	PVC Pipe	1

NOTE: Hardware to mount this scroll saw to a bench or leg set is NOT supplied. See mounting instructions for recommended hardware size.

3. Remove the pvc pipe from the loose parts bag and attach it to the sawdust blower tube and the bellows lock on the top of the housing.



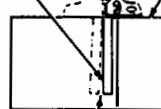
## Tools Needed



COMBINATION SQUARE MUST BE TRUE  
Check its accuracy as illustrated below.

DRAW LIGHT LINE  
ON BOARD ALONG  
THIS EDGE

STRAIGHT EDGE OF  
BOARD 3/4" THICK-  
THIS EDGE MUST BE  
PERFECTLY STRAIGHT



SHOULD BE NO GAP OR OVERLAP WHEN  
SQUARE IS FLIPPED OVER IN DOTTED POSITION

# ***Getting to know your scroll saw***

This versatile heavy-duty scroll saw is great for making toys, puzzles, games, fretwork, and jewelry, and because of its cutting capacity, is a handy do-it-yourself tool. It cuts wood up to 2 inches thick as well as plastics.

## **1. TABLE**

Provides working surface to support workpiece.

## **2. SAWDUST BLOWER**

Keeps workpiece clean for more accurate scroll cuts. For best results, always direct air flow from blower tube at blade and workpiece. To adjust, loosen set screw in the foot assembly, position tube and tighten screw. **CAUTION:** To prevent blower tube from collapsing **DO NOT OVERTIGHTEN.**

## **3. VACUUM HOOK-UP**

Your scroll saw is equipped with a vacuum hook-up. This feature will allow you to attach any 1 1/4" vacuum hose into the hole provided for convenient sawdust removal.

## **4. DROP FOOT**

The foot should always be lowered until it just rests on top of the workpiece to prevent workpiece from lifting, but not so much that the workpiece drags.

## **5. DROP FOOT LOCK KNOB**

Allows you to raise or lower the foot and lock it at desired heights.

## **6. BLADE TENSION KNOB**

Allows you to loosen or tighten the blade tension by rotating the knob.

## **7. TABLE LOCK KNOB**

Allows you to tilt the table and lock it at desired angle up to 45 degrees.

## **8. DEGREE SCALE**

Shows the degree the table is tilted.

## **9. POWER SWITCH**

Has safety feature which is intended to prevent accidental starting.

## **10. BLADE LENGTH GAUGE**

Used for attaching the blade adapters at the proper length for operation.

## **11. TABLE INSERT**

Should always be in place and flush with table during cutting operation.

## ***Glossary of Terms***

### **KERF**

The slot cut by the blade.

### **LEADING EDGE**

The edge of the workpiece which is pushed into the blade first.

### **SAWBLADE PATH**

The area of the workpiece directly in line with and moving toward the sawblade edge.

### **BLADE TOOTH SET**

The distance that the edge of the sawblade tooth is bent (onset) outward from the side of the blade.

### **TRAILING EDGE**

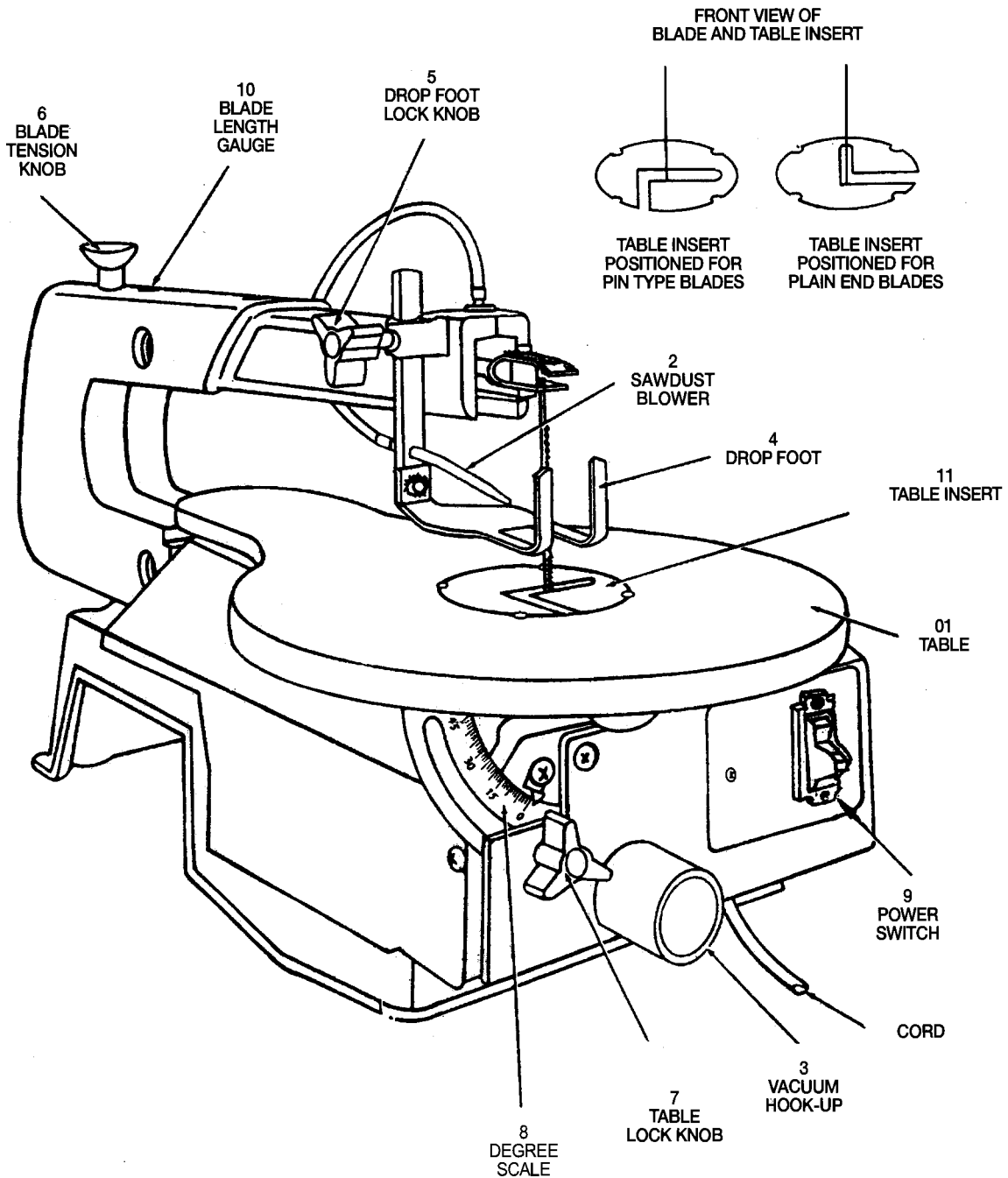
The workpiece edge last cut by the sawblade.

### **WORKPIECE**

The item on which the cutting operation is being performed.

# Getting to know your Scroll Saw

FIG.1





# Operating Adjustments

## Setting The Table For Horizontal Or Bevel Cutting

FIG.2

1. Loosen the table lock knob, and the saw table can be tilted to the left and locked at any angle from 0 degree horizontal cutting position up to 45 degrees for bevel cutting. (Fig 2).

2. A degree scale is also provided under the work table as a convenient reference for setting the approximate table angle for bevel cutting. When greater precision is required, make practice cuts and adjust the table as necessary for your requirements.

3. **NOTE:** When cutting at angles, the drop foot can be tilted so it's parallel to the table and rests flat against the workpiece. To tilt drop foot, loosen allen screw, tilt foot so it's parallel to table and securely tighten screw.

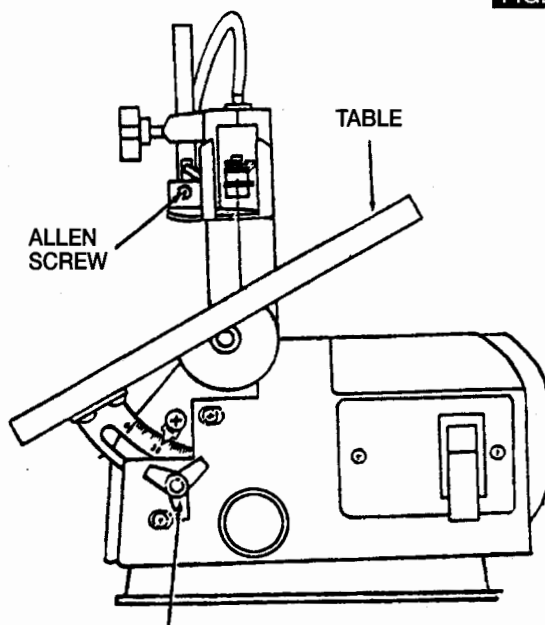


TABLE LOCK KNOB

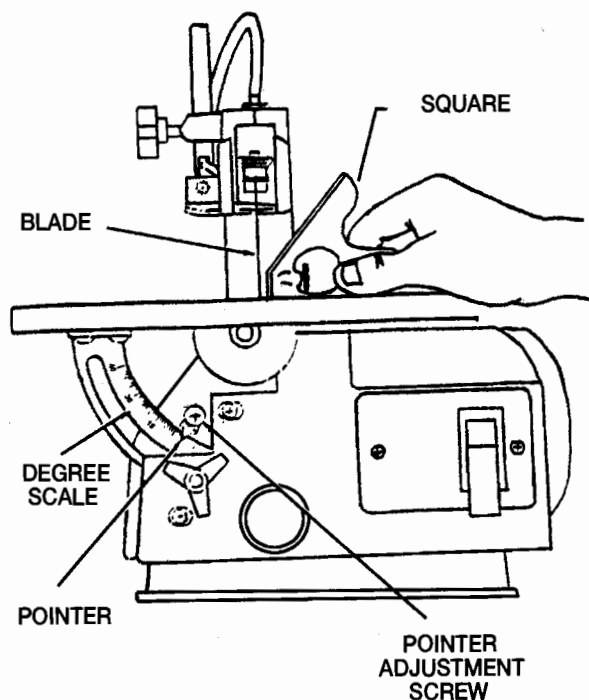
## Aligning The Degree Scale Pointer

FIG.3

1. Loosen the table lock knob and move the table until it is approximately perpendicular, or at a right angle to the blade.

2. Place a small square on the table next to the blade as shown in (Fig.3) to check if the table is 90 degrees to the blade. If adjustment is needed, raise or lower the table until table is approximately 90 degrees to the blade and securely tighten the table lock knob.

3. Loosen the screw holding the degree scale pointer, as shown in (Fig.3), move pointer to the 0 degree mark and securely tighten screw. Remember, the degree scale is a convenient guide but should not be relied upon for precision. Make practice cuts in scrap wood to determine if your angle settings are correct.



# Basic Scroll Saw Operation

Follow these instructions for operating your scroll saw to get the best results and to minimize the likelihood of personal injury.

**▲WARNING** ALWAYS OBSERVE THE SAFETY PRECAUTIONS HERE AND ON PAGES 2, 3, AND 4.

1. Protection: Eyes, Hands, Face, Ears and Body

**▲WARNING** To AVOID BEING PULLED INTO THE BLADE-

DO NOT WEAR: Loose Fitting Gloves  
Necktie  
Loose Clothing  
Jewelry

DO TIE BACK LONG HAIR

ROLL LONG SLEEVES ABOVE ELBOWS

a. If any part of your saw is missing, malfunctioning, has been damaged or broken . . . such as the motor switch, or other operating control, a safety device or the power cord . . . cease operating immediately until the particular part is properly repaired or replaced.

b. Do not cut piece too small to hold by hand.

HINT: When making a very small cutout, always secure the workpiece to a scrap piece of plywood with doublefaced tape. This way, the work is supported and your fingers are away from the blade.

c. Never turn your scroll saw on before clearing the table of all objects ( tools, scraps of wood, etc. ) except for the workpiece and related feed or support devices for the operation planned.

d. Avoid awkward hand positions where a sudden slip could cause a hand to move into the blade.

• ALWAYS adjust the drop foot to just clear the workpiece to protect the operator, keep blade breakage to a minimum and provide maximum support for blade.

• Always adjust blade tension correctly.

• Make sure blade teeth run downward toward table.

• When cutting a large piece of material, make sure it is supported at table height.

• Hold the work firmly against the table.

• Do not feed the material too fast while cutting. Only feed the material fast enough so that the blade will cut. Keep fingers away from the blade.

• Use caution when cutting off material which is irregular in cross section - it could pinch the blade before the cut is completed. A piece of molding, for example, must lay flat on the table and not be permitted to rock while being cut.

• Use caution when cutting off round material such as dowel rods or tubing. They have a tendency to roll while being cut, causing the blade to "bite".

• Never leave the scroll saw running unattended. Turn the saw OFF, make sure the saw has come to a complete stop, and then remove plug from power supply before leaving the work area.

• Do not perform layout, assembly or setup work on the table while the cutting tool is operating.

• Turn saw off and remove plug from power supply outlet before installing or removing an accessory attachment.

• The saw does not cut wood by itself. You allow the saw to cut wood by guiding the wood into the blade as it moves.

• The blade teeth cut ONLY on the down stroke.

• The drop foot should always be lowered until it just rests on top of the workpiece.

• You must feed the wood into the blade slowly because the teeth of the blade are very small and they can only remove wood when they are on the down stroke. The blade will flex backwards when applying feed pressure. Too much feed pressure will cause blade breakage.

• There is a learning curve for each person who wants to use this saw. During that period of time it is expected that some blades will break until you learn how to use the saw and receive the greatest benefit from the blades.

• Best results are achieved when cutting wood less than one inch thick.

e. When cutting wood thicker than one inch the user must feed the wood very slowly into the blade, increase blade tension and take extra care not to bend or twist the blade while cutting in order to maximize blade life.

f. Teeth on the scroll blades wear out and as such must be replaced frequently for best cutting results. Scroll saw blades generally stay sharp for 1/2 hour to 2 hours of cutting.

g. To get accurate cuts be prepared to compensate for the blade's tendency to follow the wood grain as you are cutting.

2. When choosing a blade to use with your scroll saw consider the following carefully:

a. Choose a blade that allows at least three (3) teeth to be in contact with the workpiece at all times.

b. Very fine, narrow blades should be used to scroll cut in thin wood ( 1/4 inch thick or less).

c. To cut thicker wood, use wider blades with fewer teeth per inch.

d. Most blade packages state the size or thickness of wood which that blade is intended to cut, and the radius ( size of curve ) which can be cut with that blade.

e. Wider blades can't cut curves as tight or small as thinner blades.

f. This saw uses 5 inch long, pin or plain - end type blades only.

g. Blades wear faster when ( 1 ) cutting plywood, which is very abrasive, ( 2 ) when sawing wood which is thicker than the 3/4 inch blade stroke, and ( 3 ) when sawing hardwood, or when side pressure is placed on the blade.

# Basic Scroll Saw Operation

## Blades

Your new scroll saw accepts 5 inch pin type blades. Your saw is also equipped with blade adapters that allow you to use a variety of 5 inch plain-end blades.

**▲ WARNING** To prevent personal injury always disconnect the plug from power source before changing blades or making adjustments.

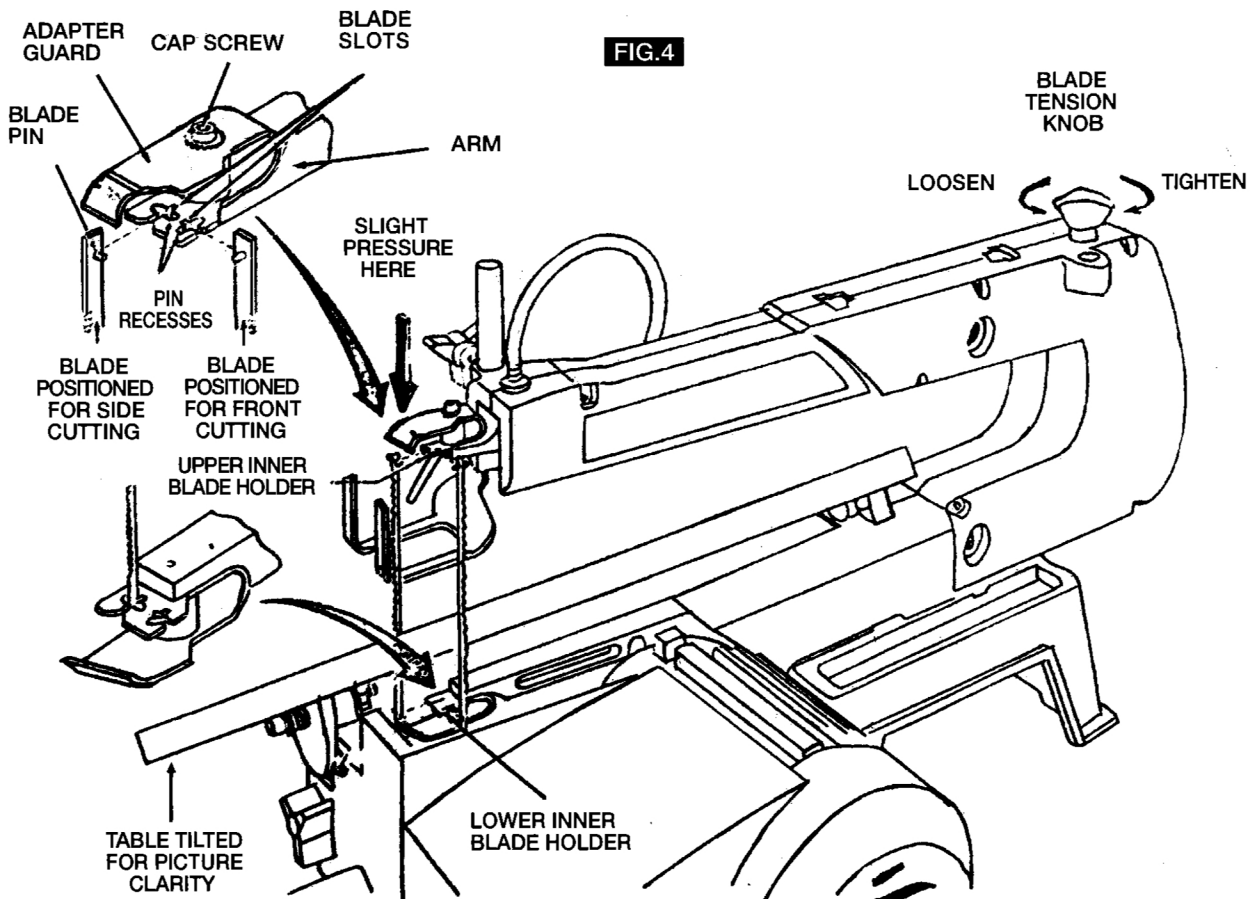
## Removing and Installing Pin Type Blades

1. Rotate the blade tension knob counter – clockwise to release blade tension.
2. Remove table insert and remove blade from the inner upper and lower blade holders by pulling forward on blade and then lifting the blade through the access hole in the table. Slight downward pressure against the upper holder may be helpful when removing blade from upper holder.
3. Look at the blade holders closely and notice the blade slots and pin recesses in the blade holders.

4. In order to cut, and avoid uncontrollable lifting of the workpiece, the teeth of the blade used on the scroll saw should always point downward as shown in (Fig. 4) when installed.

5. Install the blade by inserting one end of the blade through the access hole in the table and hook the blade pin in the pin recess in the inner lower blade holder. Slide the top blade pin into the pin recess of the inner upper blade holder. You may need to press down lightly on the upper blade holder to install the blade.

6. Carefully tighten the blade by rotating the blade tension knob clockwise just until you feel the slack in the blade removed. Double check to see that the pins are properly located in the blade holder. Then turn the blade tension knob ONE full turn clockwise. This amount of blade pressure should do well for most cutting operations and blades.



**TO FIT PINLESS BLADE SEE APPENDIX (A) TO THE REAR OF THE MANUAL**

# Mounting the scroll saw to a bench

1. When mounting this saw to a workbench, a solid bench is preferable to a plywood bench where noise and vibration will be more noticeable.

2. Hardware to mount this saw to a workbench is NOT SUPPLIED with the saw. However, we recommend the hardware used be no smaller than the following:

## Quantity Description

- 4 Hex Head Bolts, 1/4 - 20 Length Required
- 4 Flat Washers, 9/32 I.D.
- 4 Lockwasher, 9/32 I.D.
- 8 Hex Nuts, 1/4 - 20

3. Soft foam pad to place between your scroll saw and workbench is NOT supplied with the saw. However, we highly recommend the use of such a pad to reduce noise and vibration.

## Quantity Description

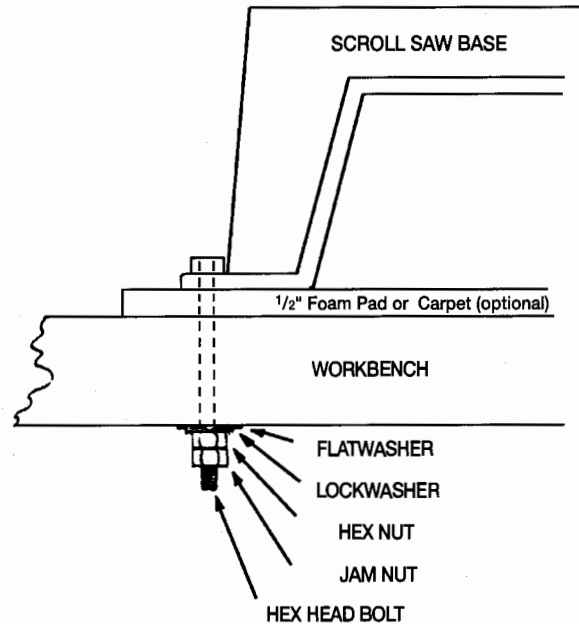
- 1 Soft foam pad, such as carpet padding, 24" x 12" x 1/2"

DO NOT overtighten mounting bolts - leave some cushion in the foam pad for absorbing noise and vibration.

**WARNING** Always remove the front right hex head bolt. It will be necessary to insert hex head bolt from bottom side of workbench, and secure with hex nut from top side of scroll saw base.

4. Example of mounting this scroll saw to workbench: (Fig. 5)

FIG.5



# Maintaining Your Scroll Saw

## Maintenance

### ⚠️ WARNING

For your own safety, turn power switch "OFF" and remove plug from the power source outlet before maintaining or lubricating your scroll saw.

### GENERAL

Frequently blow out any dust that may accumulate inside the motor. An occasional coat of paste wax on the work table will allow the wood being cut to glide smoothly across the work surface.

### ⚠️ CAUTION

Certain cleaning agents and solvents damage plastic parts. Some of these are: gasoline, carbon tetrachloride, chlorinated cleaning solvents, ammonia and household detergents that contain ammonia. Avoiding use of these and other types of cleaning agents minimizes the probability of damage.

### ⚠️ WARNING

To avoid shock or fire hazard, if the power cord is worn or cut, or damaged in any way, have it replaced immediately.

### ⚠️ WARNING

All repairs, electrical or mechanical, should be attempted only by trained repairmen. Contact the nearest Local Factory Service Center.

## Lubrication

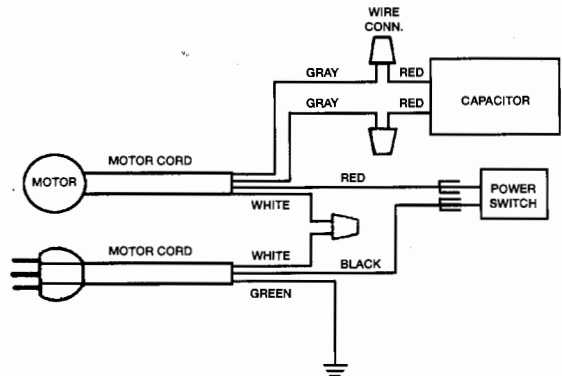
### ARM BEARINGS

Lubricate the arm bearings with oil after 10 hours of use. Re-oil after every 50 hours of use or whenever there is a squeak coming from the bearings.

### TO LUBRICATE

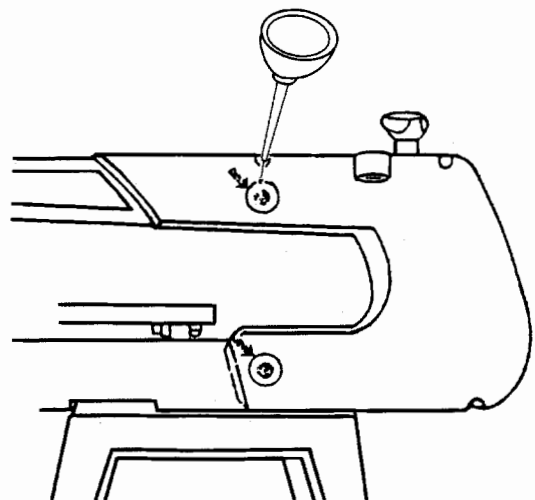
1. Turn saw on its side as shown in ( Fig.7 ).
2. Squirt a generous amount of SAE 20 oil around the shaft end and bronze bearing.
3. Let the oil soak in overnight in this condition.
4. Next day repeat the above procedure for the opposite side of the saw.

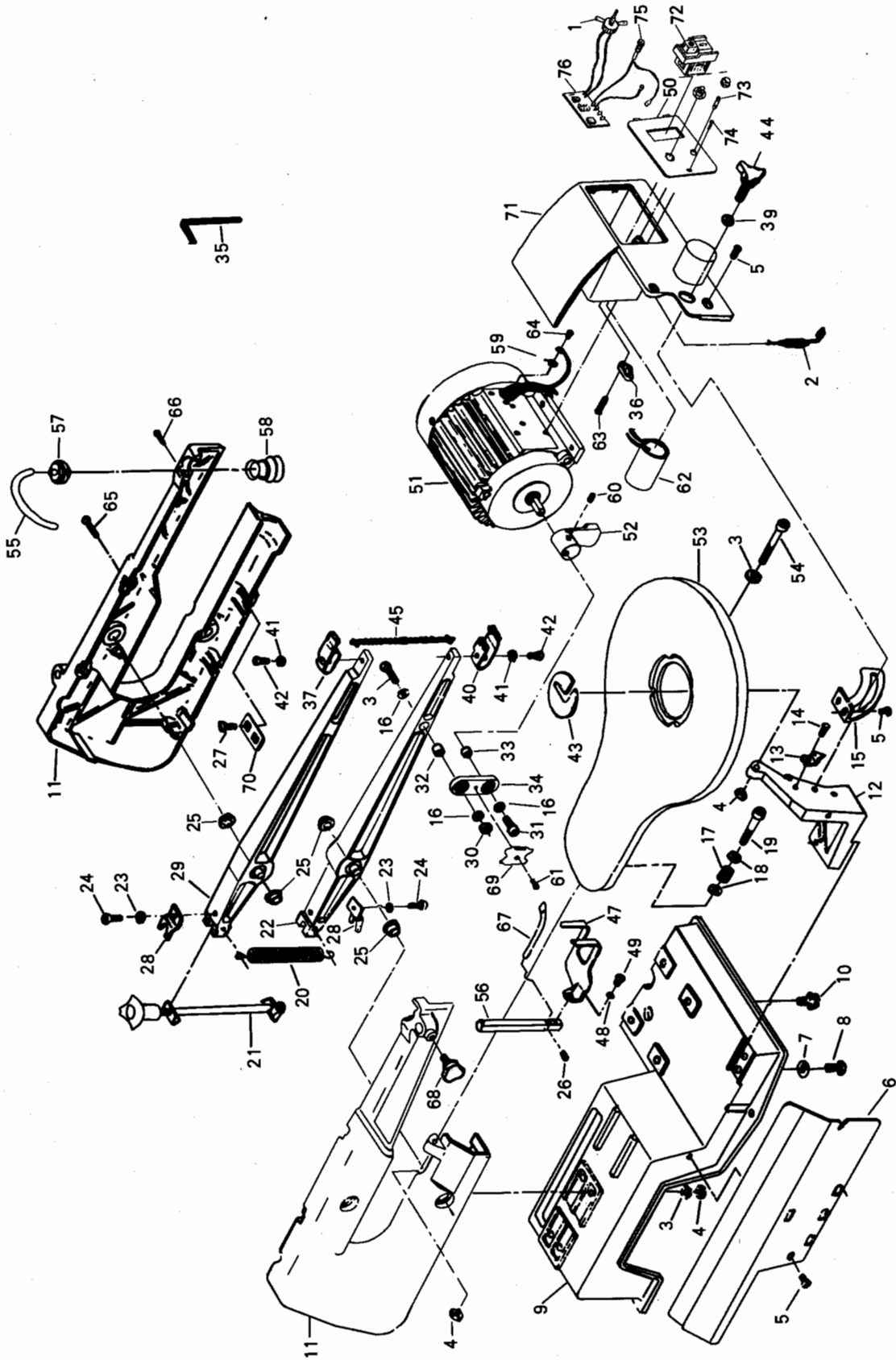
## WIRING DIAGRAM



carbon brush of motor is changed per 60 hour

FIG.7





# 16" SCROLL SAW

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1	RF1004	SPEED SWITCH	28	S1604004	RETAINER	55	S1601018	PVC PIPE
2	S1605004	POWER SUPPLY	29	S1602001 - 1	UPPER ROCKER ARM ASSY	56	S1601015	SUPPORT ROD
3	GB93-86	SPRING WASHER 6	30	GB170 - 86	HEX NUT M5	57	S1601020	BELLOWS LOCK
4	GB6170-86	HEX NUT M6	31	GB70 - 86	HEX HEAD BOLT M5 x 30	58	S1601019	BELLOWS
5	GB818-85	PAN HEAD SCREW M5 x10	32	S1602003	SPACER BEARING	59	GB862.1 - 86	TOOTH WASHER 4
6	S1601009	PLATE COVER	33	S1602004	SPACER BEARING	60	GB80 - 86	SET SCREWS M8 x 8
7	GB93-86	SPRING WASHER 8	34	S1602002	LINK ASSEMBLY	61	GB845 - 85	PAN HEAD SCREWST 4.2 x 8
8	GB5781-86	HEX HEAD SCREW M8 x 25	35	GB5356 - 86	ALLEN WRENCH	62	S1605002	CAPACTOR
9	S1601004	BASE	36		CORD CLAMP	63	GB818 - 85	PAN HEAD SCREW M4 x 20
10	GB6781-89	HEX HEAD SCREW M6 x 20	37	S1603001	HOLDER UPPER	64	GB818 - 85	PAN HEAD SCREW M4 x 6
11	S1601001,2	HOUSING SET	38	GB70 - 86	HEX HEAD BOLT M5 x 25	65	GB818 - 85	PAN HEAD SCREW M5 x 35
12	S1601006	SUPPORT TABLE	39	GB96 - 85	FLAT WASHER	66	GB818 - 85	PAN HEAD SCREW M5 x 30
13	S1601012	INDICATOR	40	S1603002	HILOSER LOWER	67	S1601017	BLOWER TUBE
14	GB818-85	PAN HEAD SCREW M5 x 10	41	GB862.1 - 86	TOOTH WASHER	68	S1601016	KNOB
15	S1601010	BRACKET TILT	42	GB70 - 86	HEX HEAD BOLT M4 x 10	69	S1602002 - 2	BEARING FENCE
16	GB93-76	SPRING WASHER 5	43	S1603004	TABLE INSERT	70	S1601005	SET PLATE
17	S1601008	SPRING	44	S1601011	KNOB	71	S1605005	SWTTCN CASE
18	GB97.2-86	FLAT WASHER 6	45	S1603003	BLADE	72		POWER SWITCH
19	GB70-86	HEX HEAD BOLT M6 x 40	46	GB818 - 85	PAN HEAD SCREW M4 x 16	73		FUSE
20	S1604005	SPRING	47	S1601014	GUARD BLADE	74		SCREW
21	S1604000	BOLT TENSION	48	GB862.1 - 86	TOOTH WASHER 5	75		FUSE BASE
22	S1602001-2	LOWR ROCKER ARM ASSY	49	GB818 - 85	PAN HEAD SCREW M5 x 10	76		ELECTRIC CIRCUIT
23	GB93-86	SPRING WASHER 4	50	S1605006	SWTTCN COVER			
24	GB70-86	HEX HEAD BOLT M4 x 10	51	S1605001	MOTOR			
25	S1601003	BEARING FLANGE	52	S1602005	ECCENTRIC			
26	GB818-85	PAN HEAD SCREW M5 x 6	53	S1601007	TABLE			
27	GB12-88	ROUND HEAD SCREW M6 x 25	54	GB70 - 86	HEX HEAD BOLT M6 x 40			

# Trouble Shooting



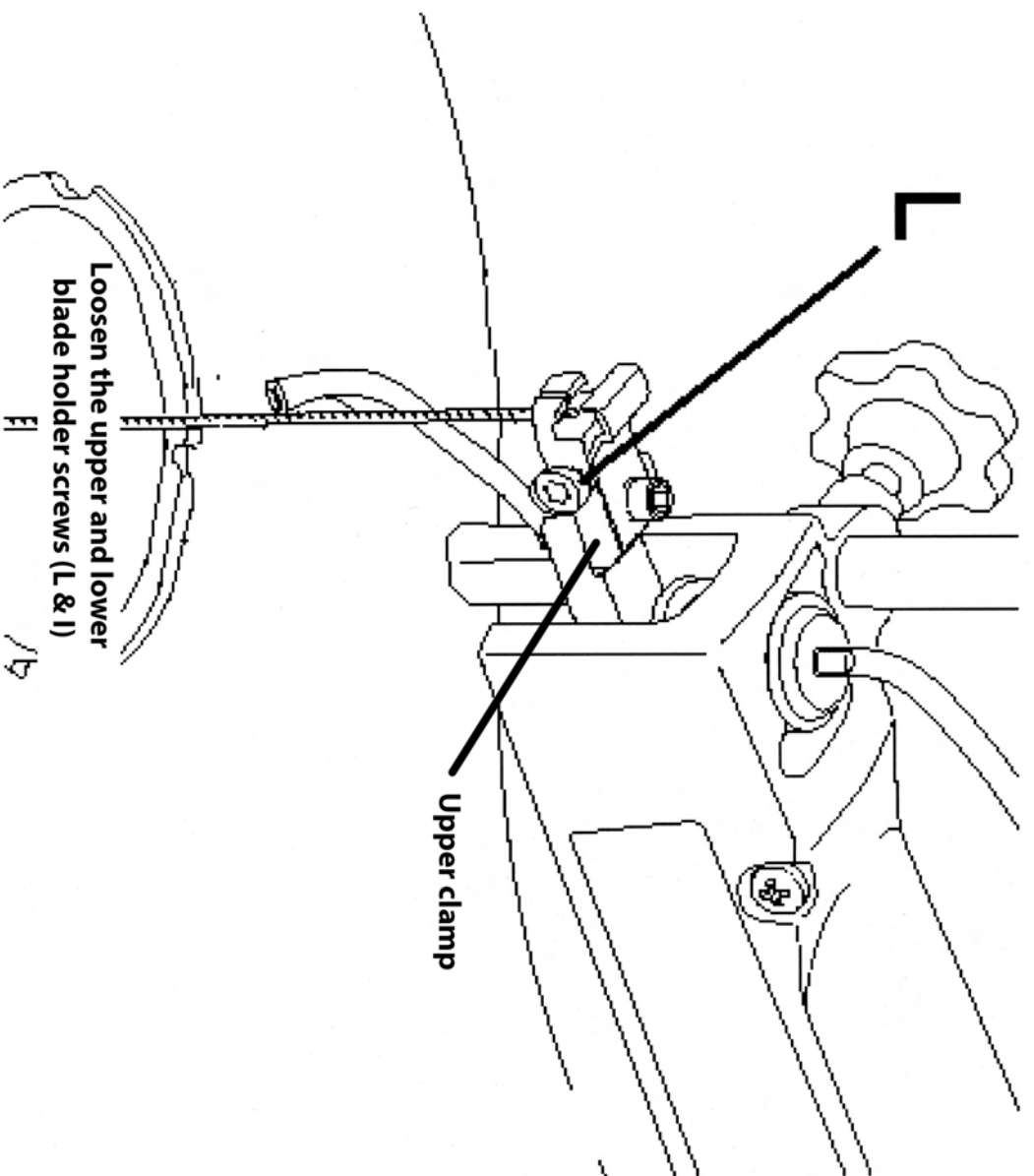
Turn switch "OFF" and always remove plug from the power source before trouble shooting.

TROUBLE	PROBLEM	REMEDY
Breaking blades	<ol style="list-style-type: none"> <li>1. Wrong tension.</li> <li>2. Over working blade.</li> <li>3. Wrong blade application.</li> <li>4. Twisting blade in wood.</li> <li>5. Incorrect teeth per inch.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust blade tension, see "REMOVING" AND INSTALLING BLADES."</li> <li>2. Reduce feed rate, see "BASIC SCROLL SAW OPERATION."</li> <li>3. Use narrow blades for cutting thin wood, wide blades for thicker wood.</li> <li>4. Avoid side pressure on blade.</li> <li>5. Blade should have minimum 3 teeth in contact with workpiece.</li> </ol>
Motor will not run.	<ol style="list-style-type: none"> <li>1. Defective cord or plug.</li> <li>2. Defective motor.</li> <li>3. Defective wire connections.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace defective parts before using saw again.</li> <li>2. Consult Local Service. Any attempt to repair this motor may create a HAZARD unless repair is done by a qualified service technician.</li> </ol>
Vibration NOTE: There will always be some vibration present when the saw is running because of motor operation.	<ol style="list-style-type: none"> <li>1. Improper mounting of saw.</li> <li>2. Unsuitable mounting surface.</li> <li>3. Loose table or table resting against motor.</li> </ol>	<ol style="list-style-type: none"> <li>1. See "MOUNTING YOUR SCROLL SAW TO A BENCH."</li> <li>2. The heavier your work bench is, the vibration will occur. A plywood workbench will not be as good a work surface as the same size solid lumber. Use common sense in choosing a mounting surface.</li> <li>3. Tighten table lock knob.</li> </ol>
Blade runout. – Blade not in – line with arm motion	<ol style="list-style-type: none"> <li>1. Blade holders not aligned.</li> </ol>	<ol style="list-style-type: none"> <li>1. Loosen cap screws holding blade to upper and lower arms. Adjust position of blade holders.</li> </ol>





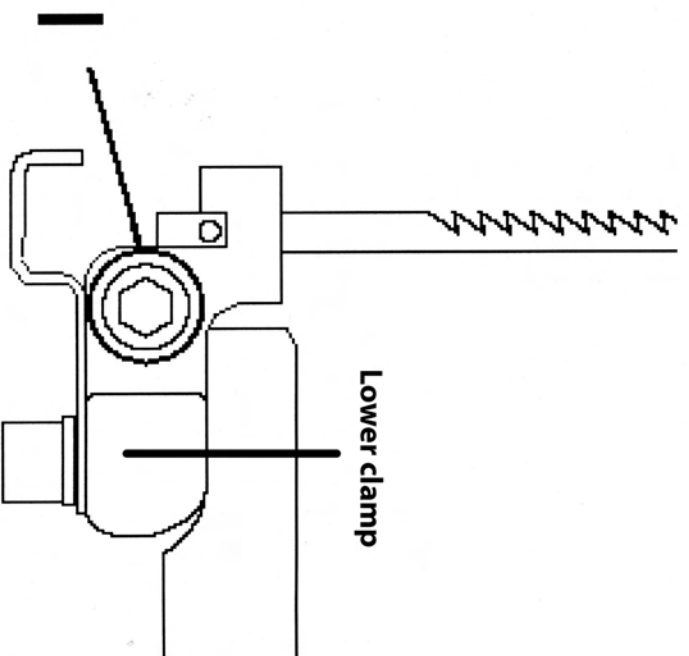
## APPENDIX (A)



Loosen the upper and lower  
blade holder screws (L & I)

L  
I

Upper clamp



Lower clamp

The type of clamps fitted to this saw will accept blades with out pins,  
but you must use the clamp screws (L & I) on the side of each clamp.

