



**J E T FILE**

# **15'' SCROLL SAW**

## **OPERATORS MANUAL**

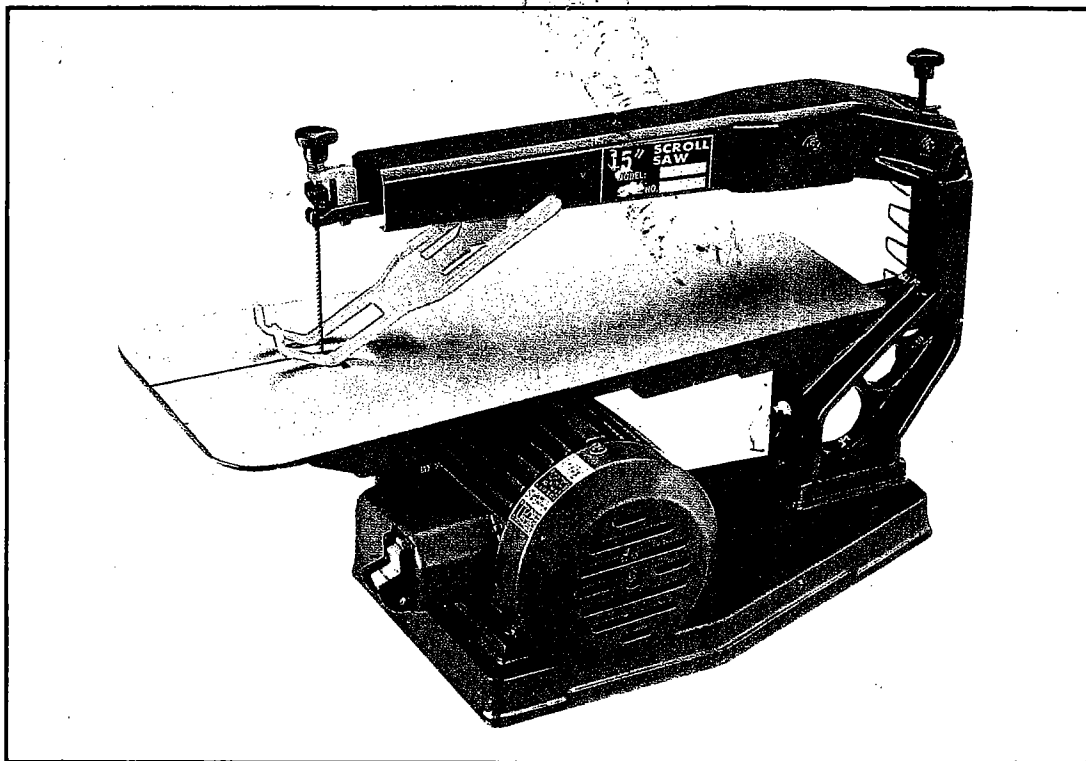


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INTRODUCTION

THE 15" SCROLL SAW IS DESIGNED TO PERFORM PRECISE AND EXTREMELY INTRICATE CUTS WITH THE WALKING BEAM. A SCROLLSAW IS BASICALLY A "CURVE-CUTTING" TOOL, BUT IT CAN ALSO BE USED FOR STRAIGHT-LINE CUTTING, SUCH AS RIPPING, CROSSCUTTING AND COMPOUND CUTTING. NOTE: MAXIMUM THICKNESS OF WORKPIECE IS TWO(2) INCHES – USE A WIDER SAW. IT IS BETTER FOR BEVEL CUTTING THAN A STANDARD SCROLL SAW BECAUSE THE BLADE CAN TILT 45° TO THE LEFT WHILE THE TABLE AND WORKPIECE REMAIN LEVEL.

**FILE**SPECIFICATIONS

Throat: 15"  
 Speed of motor: 1,650 Rpm  
 Stroke of blade: 3/4"  
 Length of blade: 5" (pin type or plain end)  
 Table Tilts: 0° – 45° left

Maximum thickness of workpiece: 2"  
 Table size: 17" x 7-7/8"  
 Motor: 1/8 H.P. 4P 2.5 AMP 115 Volts 60 H.Z.  
 Base size: 13-7/8" x 7-7/8"  
 Overall dimension: 20" x 10" x 11-1/2" (L x W x H)

GENERAL SAFETY RULES FOR ALL POWER TOOLS

1. **READ AND BE FAMILIAR** with the owner operating manual-carefully and thoroughly. Learn its limitations and applications and its specific and potential hazards.
2. **ALWAYS KEEP THE GUARD** in place and in proper working condition.
3. **GROUND ALL TOOLS.** – if the tool is equipped with three-prong plug, it should be always plugged into a three-hole electrical receptacle. If an adapter is used for a two-prong receptacle, the adapter's lug must be connected to a known ground line and NEVER removes the third prong.
4. **CHECK DAMAGED PARTS** – Before further using the tool, any damaged parts should be check, to assure that it will perform and operate properly for its intended purposes.- replace and align all moving parts, mounting or any other conditions that may affect its operation.
5. **REMOVE ALL ADJUSTING KEYS AND WRENCHES.** – Always forms the habit of checking that all keys and adjusting wrenches are remove from the tool before starting operation.
6. **DISCONNECT UNIT BEFORE SERVICING** and when changing blades, bits or cutters to avoid accidental starting.
7. **KEEP WORKING AREA CLEAN.** Cluttered areas and benches can cause accidents. – Don't use the unit in damp or wet locations or exposing it to the rain. Also keep the working area well and properly lighted.
8. **USE SAFETY GLASS AND WEAR PROPER APPAREL.** Also use face or dust mask if the operation is dusty. Loose clothing or jewelry may get caught in moving parts. Put on protecting hair covering to contain long hair.
9. **KEEP CHILDREN AND VISITOR AWAY.** All visitors should be kept at a safe distance away from the working area especially while operating tools.
10. **MAKE WORKSHOP CHILDPROOF.** Lock tools when not in use by removing starter keys or the master switches.
11. **DON'T FORCE THE TOOL** – It will perform a better and safer job at a rate for which it was designed. Allows the motor to reach full speed before cutting.
12. **USED RIGHT AND PROPER TOOL.** Don't use any other tool attachment to do a job which is not designed for it.
13. **USED RECOMMENDED ACCESSORIES.** Consult the owner manual for all recommended accessories. Improper used of it may cause hazards.
14. **MAINTAIN TOOLS IN TIP-TOP CONDITION.** Keep the unit clean for safest performance. Follow all instruction of lubrication and changing attachment or accessories.
15. **DON'T EVER OVER-REACH.** Keep proper footing and balance of your body at all time during operation of the tools.
16. **SECURE WORK PROPERLY.** Use vises or clamps to hold work. It is practical and safer not to use bare hands.
17. **NEVER LEAVE THE TOOL UNATTENDED.** Turn the switch to "OFF" position and do not leave the unit until it is completely stopped.
18. **NEVER STAND ON THE TOOL.** Serious injury could occur if the unit is tipped or if the blade is accidentally contacted.

19. **DIRECTION OF FEED.** Always feed the workpiece into the blade against the rotation of blades or cutters.
20. **DRUGS, ALCOHOL AND MEDICATION.** Never operates tools while under influence of drug, alcohol or after taking medication.
21. **NEVER ATTEMPT** to perform an abnormal and little used operation. Don't try to cut small pieces. Always use adequate hold down/push back, jigs, or fixtures, etc.

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NOTE: KEEP THE MANUAL AND REVIEW IT FROM TIME TO TIME FOR YOUR CONTINUING SAFETY OPERATION AND FOR THE USED OF THE THIRD PARTY.

## SPECIAL SAFETY INSTRUCTIONS FOR 15" SCROLL SAW

THERE ARE CERTAIN APPLICATION FOR WHICH THIS TOOL WAS SPECIFICALLY DESIGNED. WE STRONGLY RECOMMEND NOT TO MODIFY AND/OR USE IT FOR ANY OTHER PURPOSES.

WARNING: FOR SAFETY PURPOSES, DO NOT ATTEMPT TO OPERATE THE SCROLL SAW UNTIL IT IS COMPLETELY INSTALLED AND ASSEMBLED ACCORDINGLY. ALWAYS KEEP ALERT. DO NOT ALLOW FAMILIARITY (GAINED FROM FREQUENT USE OF THE SAW) TO CAUSE A CARELESS MISTAKE. REMEMBER ALWAYS THAT A CARELESS FRACTION OF A SECOND IS SUFFICIENT TO INFLICT SEVERE INJURY.

## READ AND UNDERSTAND THE FOLLOWING

- The scroll saw should be bolted tightly and securely to a stand or workbench. However, if the saw still had a tendency to move during operations, better bolt the scroll saw or workbench to the floor.
- This saw is basically intended for indoor use only. Provide a good and well ventilated working space.
- Do not cut too small workpiece by using your hands. Avoid awkward HAND positions where a sudden slip may cause a hand in contact with the blade and cause injury.
- Turn the scroll saw in "OFF" before clearing the table of all objects (tools, scrap woods, etc.).
- Always make sure that the blade teeth is pointed downward toward the table, and always adjust blade tension correctly.
- When cutting a large workpiece, be sure it is properly supported at table height, and hold the workpiece firmly against the table.
- Do not feed the stock too fast or too hard while cutting. Feed the workpiece only at a moderate rate enough for the blade to cut. Keep fingers away from the blade.
- When cutting off irregular cross-section workpiece, take caution with the workpiece for it might pinch the blade before the cut is completed. Mouldings must lay flatly on the table and not be permitted to rock while cutting. Also use caution in cutting off round stock such as dowel rods or tubing. It may have the tendency to roll causing the blade to "bite" while cutting.
- When backing the blade out from the workpiece, the blade bind in the kerf (curve) caused by clogging of sawdust. If this happens, turn the scroll saw "OFF"; remove the plug from the power source outlet; wedge open the kerf and back the blade out of the workpiece slowly.
- Do not perform or do layout, assembly or set-up work on the table while the scroll saw is operating.
- Always turn the saw to "OFF" position and remove the plug from power source outlet before installing or changing an accessory or attachment.
- Always replace damaged parts before resuming operation of the saw. Use only original factory replacement parts.

## UNPACKING

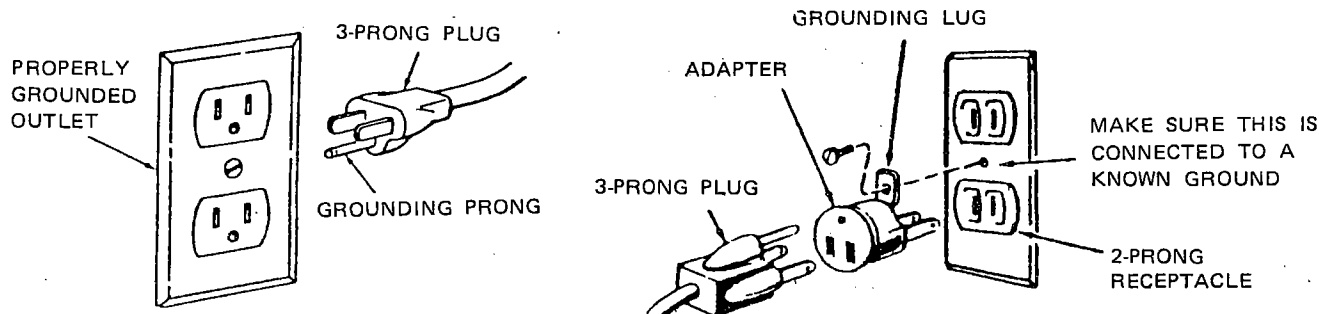
Carefully unpack the saw from the packages and check each item provided. Do not attempt to operate the saw with any missing parts until the parts are obtained and installed properly.

MOTOR SPECIFICATION AND ELECTRICAL WIRING REQUIREMENT

This scroll saw is equipped with a 1,725 RPM motor and is pre-wired at the factory for operating on 115 volts, 60 Hz. alternating current. Note: Do not convert the tool to operate on 230 volts.

**CONNECTING ELECTRICAL CORD TO THE POWER SUPPLY OUTLET:****FILE**

This power tool is provided with a 3-prong plug cord for grounding purposes, and this plug requires 3-conductor ground type outlet. **IMPORTANT:** Check with a qualified electrician for proper grounding of the outlet. If not done, it can cause an electrical shock especially when you are using the tools on damp and wet conditions or close to plumbing pipes which may cause hazard to the user.



If you are using Two (2)-prong type outlet, do not remove or alter the grounding prong in any manner. Use an adapter as shown and always connect the grounding lug to a known ground. Have your qualified electrician check if the outlet box is properly grounded.

The use of Extension cord may cause some loss of power. To maintain it to a minimum and prevent overheating and burn-out motor. Use the recommended size of Extension Cords as follows:

| Extension Cord Length | Size of Wire (A.W.G.) |
|-----------------------|-----------------------|
| 25 – 50 Ft.           | No. 16                |
| 50 – 100 Ft.          | No. 14                |

**WARNING: CHECK EXTENSION CORDS BEFORE USING THE SCROLL SAW. IF DAMAGED, REPLACE IMMEDIATELY.**

**MOUNTING SCROLL SAW ON THE WORKBENCH**

Scroll saw that will be used in a permanent location, it should be fastened tightly and securely to a firm supporting surface.

When mounting scroll saw to a stand or workbench, drill holes as shown in Figure 1 through the supporting surface of the stand or workbench with the proper size and dimensions.

**Procedures in mounting saw to workbench:**

1. Locate and mark holes where the scroll saw is to be mounted. Drill two(2) 9mm. diameter holes through the surface of the workbench.
2. Place the scroll saw on the workbench and align the holes in workbench and base of the scroll saw. With the bolts supplied in the loose parts bag, bolts the base and the workbench tightly and properly. Be sure the bolts is of sufficient length to accomodate the saw base. After tightening, check if the scroll saw attached to the workbench still move, then retighten it again.

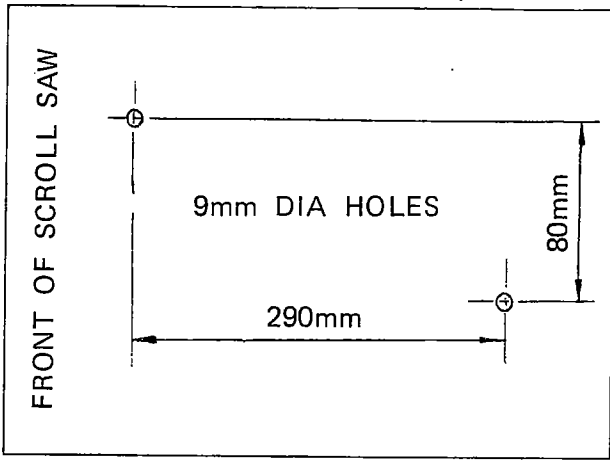


FIGURE 1

### INSTALLATION AND ADJUSTMENTS:

Adjustment of the blade to the table – Place a square in front of the blade, and check if it is parallel to the blade. If an adjustment is needed, loosen the bevel lock knob located under the table and rotate the table slightly to align the blade using the square, and then tighten the bevel lock knob. See Figure 2.

#### Replacement of the blade:

**CAUTION:** Always turn the switch "OFF" and remove plug from power source outlet before removing or replacing sawblade.

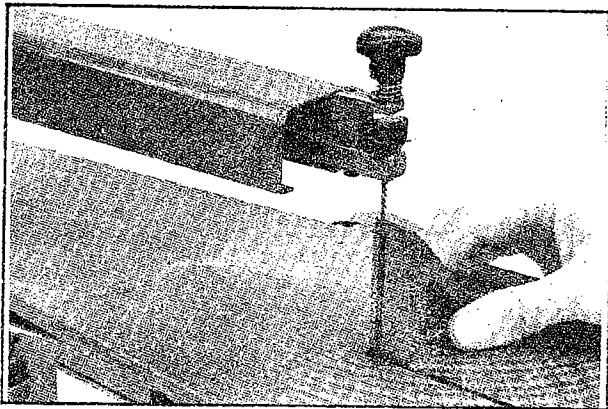


FIGURE 2

#### Installation and removal of Plain-end Blades:

##### Installation procedures:

1. Insert blade into the two blade holders, then tighten the two Hex. Screws with an Allen wrench as shown in Figure 3.
2. Slide the blade assembly into the table opening and make sure the blade is pointing downward.
3. Place each holder in groove on the rocker arm and then tighten tension knob by turning clockwise until the blade assembly is properly tensioned.

4. Turn the lock knob clockwise until a distance of 1 mm. between the lock knob and the upper blade holder is attained. See Figure 4.

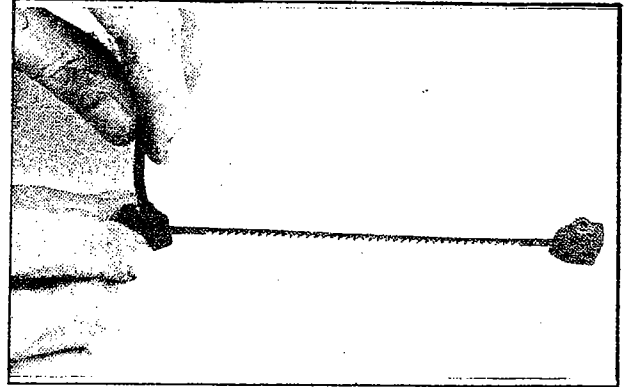


FIGURE 3

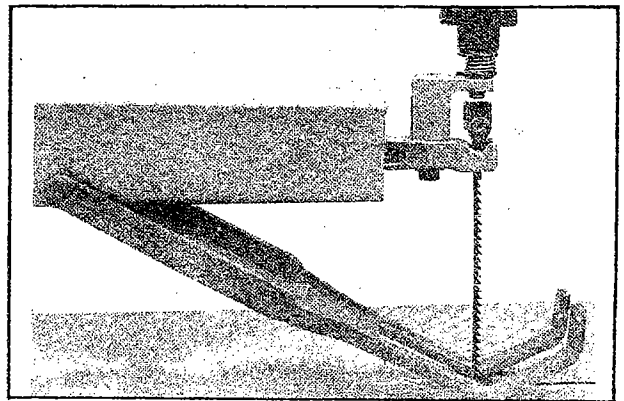


FIGURE 4

##### Removal procedures:

1. Loosen the lock knob until the blade assembly can be removed from the rocker arm. See Figure 5.
2. Release tension knob by turning counter clockwise until blade assembly is loose. See Figure 6.
3. Remove the blade assembly by pulling the holder away from groove on rocker arm.
4. Use allen wrench to loosen the two(2) Hex. screws in blade holders and then remove the blade.

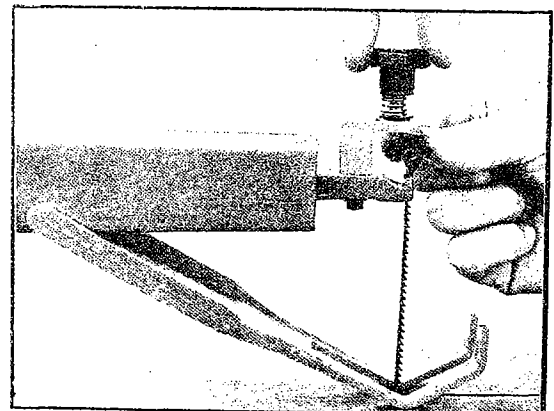


FIGURE 5

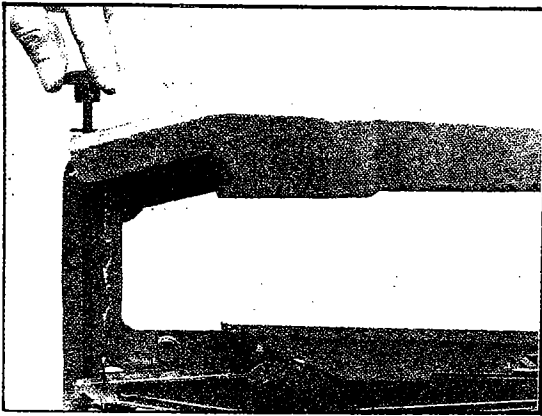


FIGURE 6

**Installation and Removal of Pin-type blade. Installation procedures:**

1. Pin-type blades are not supplied with the saw. There are two "V" type blade clips provided for installing pin-type blade.
2. Place a "V" type blade clip in groove on the upper rocker arm with clip slot position towards the front for easy access and installation. See Figure 7.
3. Install the Pin-Type blade by sliding blade into the table opening and clip slot and make sure the teeth of the blade is pointing downward. See Figure 8.
4. Place the other blade clip in the groove on the lower rocker arm and then tighten tension knob by turning clockwise until it is properly tight.

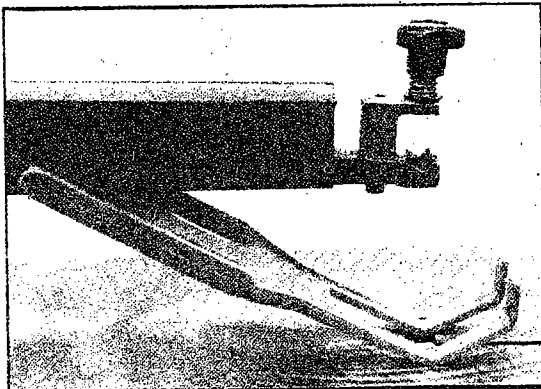


FIGURE 7

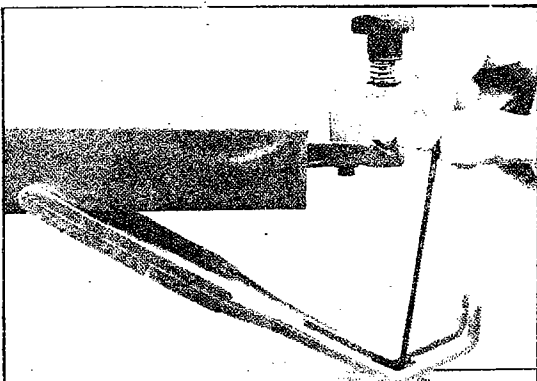


FIGURE 8

**Removal procedures:**

1. Release tension knob by turning it counter clockwise until the blade assembly is loose. See Figure 9.
2. Remove the blade by pulling blade away from the blade clips. Shown in Figure 10.

**BLADE TENSIONING**

Turn the tension knob clockwise BY HAND until it tightens properly and proper tension of the blade. DO NOT use any type of mechanical tool or device on the tension knob.

**SCROLL SAW OPERATIONS**

**INSIDE CUTTING** — The scroll saw has the capability of inside cutting. Pin-type blades are recommended as the best type of blade to be used for maximum performance when doing inside cutting.

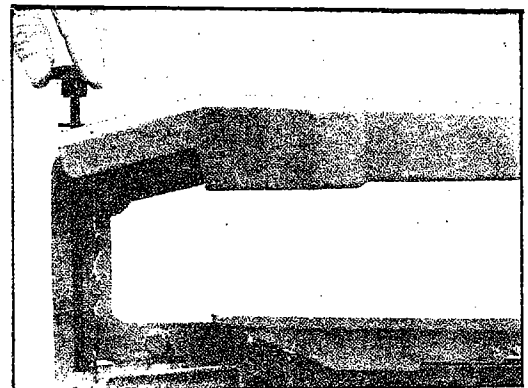


FIGURE 9

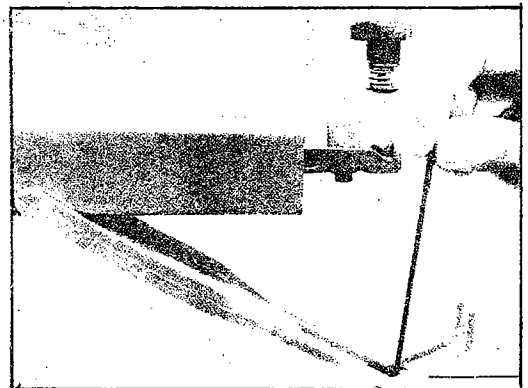


FIGURE 10

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## HOW TO PERFORM AN INSIDE CUT.

1. Drill an overside hole scrap section of the workpiece.
2. Release the tension knob, remove blade assembly and loosen set screws in both the upper and lower blade holders.
3. Place the workpiece on the saw table with drilled hole aligned over the table opening. See Figure 11.
4. Replace the blade back by sliding it through the drilled hole and table opening. Re-install blade to blade clip and blade holder. Refer to Figure 12 and 13 or Figure 14.
5. Retighten tension knob, then tighten lock knob for the blade.

**NOTE:** Used caution in cutting off workpiece that have irregular crossection which could pinch the blade before the cut is completed.

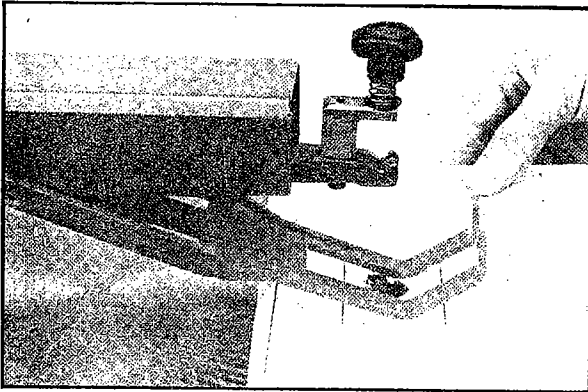


FIGURE 11

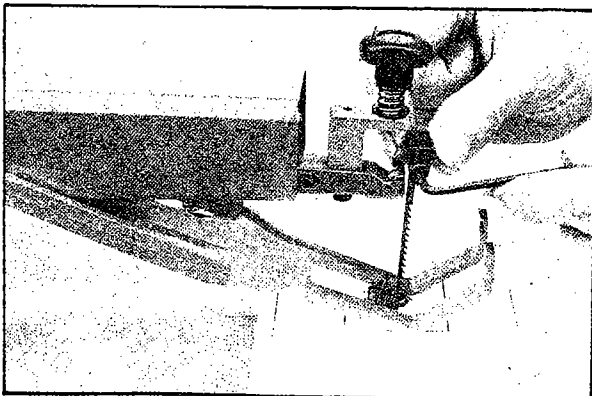


FIGURE 12

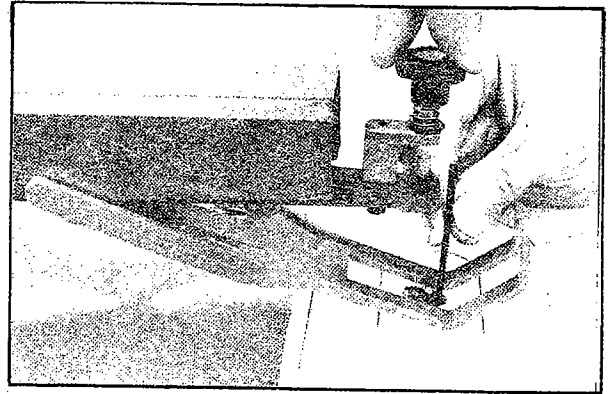


FIGURE 13

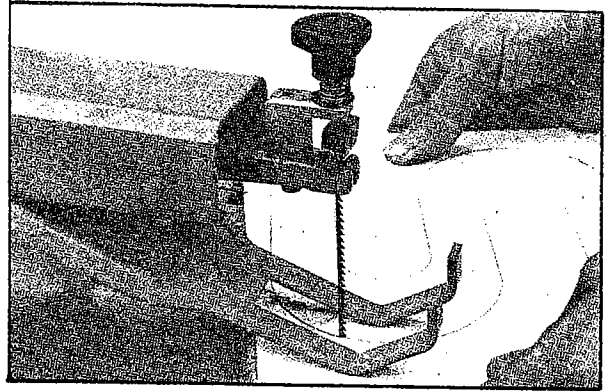


FIGURE 14

## SCROLLING

Plan the best order of cuts with proper mark that you want to make on the workpiece. Avoid unnecessary overlapping of cuts. Use both hands while feeding the workpiece into the blade; hold the work firmly against the table, apply moderate pressure and do not force the work to allow the blade to cut properly and smoothly. Keep cut square to the table, avoid applying side pressure on the blade during cutting.

## BEVEL CUTTING

Loosen bevel lock knob and tilt the table to desired angle by reading the bevel scale. Retighten the bevel knob. Perform bevel cuts by feeding workpiece into the blade without using guide.

## CROSS CUTTING

To performs crosscutting on the scroll saw, first mark the profile on the workpiece, hold the workpiece firmly against the table and use both hand in feeding workpiece into the blade.

**NOTE:** Use proper width and thickness of blades to cut thick stock.



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## RIPPING

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Ripping refers to cutting workpiece along with the grain direction. To perform rip cutting, saw on the scrap side of the mark line and leave enough and sufficient allowance on the workpiece for smoothing. Push the workpiece slowly and firmly, make sure your fingers is well away from the blade.

NOTE: Use proper width and thickness blades for ripping.

### CHOICE OF BLADE

The scroll saw can be installed with variety of blade widths and thicknesses. The blade width, thickness and the number of teeth per inch are determined by the type of materials and the sizes of the radius or thickness being cut.

Below are the recommended size of blade:

| Width (In.) | Teeth per inch | Use for                            | Thickness |
|-------------|----------------|------------------------------------|-----------|
| .022"       | 27             | wood, metal-fast cut               | .010"     |
| .029"       | 20             | wood, metal-fast cut               | .012"     |
| .037"       | 16             | wood & metal-cutting & ripping     | .015"     |
| .043"       | 14             | wood & metal-larger work           | .016"     |
| .053"       | 11             | wood & metal-sharp turns; fast cut | .018"     |
| .100"       | 9              | wood & metal-fast cut; good finish | .022"     |

### MAINTENANCE

General — Always keep the scroll saw clean. Do not allow the saw to pitch and accumulate on the table, table insert, blade and blade holders. Apply a thin coat of automotive type of wax on the table so the workpiece will slides easily while cutting.

Motor care and lubrication — Vacuum or blow out any sawdust frequently from the motor. Replace immediately any damaged or worn out cord — use only original factory replacement parts. Lubricate the spindle bushing occasionally with lightweight machine grade oil.

**WARNING: ALWAYS TURN THE SWITCH IN "OFF" POSITION AND REMOVE PLUG FROM THE POWER SOURCE OUTLET BEFORE MAINTENING OR LUBRICATING THE SCROLL SAW.**

# FILE TROUBLE SHOOTING DSS-15

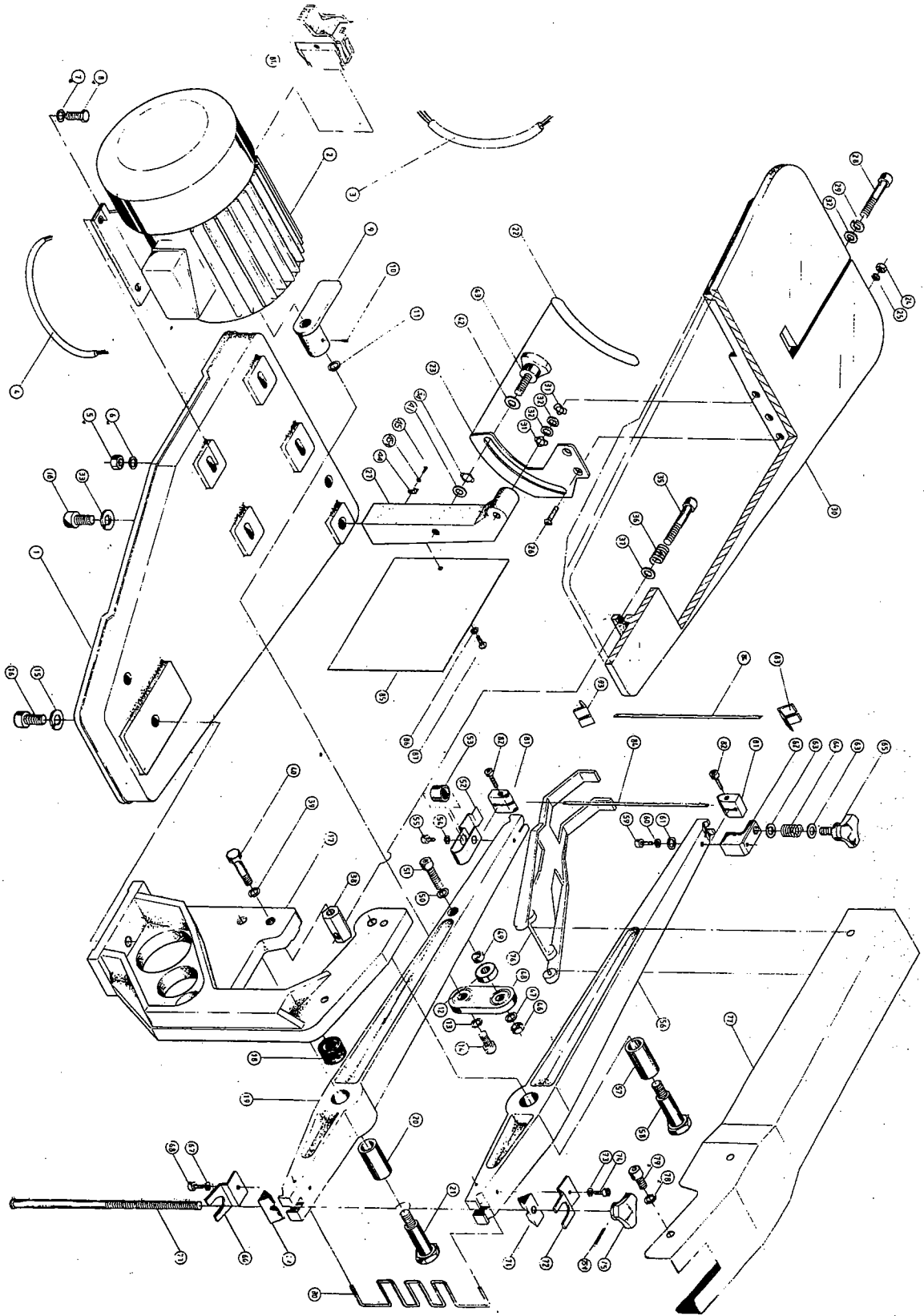
**IMPORTANT:** Turn switch to "OFF" position; Remove key and plug from the power source outlet before attempting to do any trouble-shooting jobs on the scroll saw.

| TROUBLE                                    | PROBABLE CAUSES  | WHAT TO DO   |
|--|--|--|
| Motor will not function                    | <ol style="list-style-type: none"> <li>1. Defective On-Offswitch.</li> <li>2. Defective cords.</li> <li>3. Defective switch box receptacle.</li> <li>4. Defective motor.</li> <li>5. Mechanism got jammed or cutting too fast.</li> </ol>  | <ol style="list-style-type: none"> <li>1. Replace defective parts before using the saw.</li> <li>2. Consult with qualified service-technician. Do not attempt to repair the motor yourself because it cause hazard shock or injury.</li> <li>3. Unplug the unit from power source, insert screwdriver into a slot provided in the end of the motor shaft and rotate manually the motor.</li> </ol> |
| Scroll saw slows down down while cutting.  | <ol style="list-style-type: none"> <li>1. Cutting too small radius.</li> <li>2. Dull blade.</li> </ol>   | <ol style="list-style-type: none"> <li>1. Stop feeding the workpiece, back out the material slightly, and let saw to speed up; Use smaller blade.</li> <li>2. Replace or change blade.</li> </ol>  |
| Blades break or bends.                     | <ol style="list-style-type: none"> <li>1. Too much tension.</li> <li>2. Blade kinks caused by cutting too small radius or turning the material too fast when cutting.</li> <li>3. Blade not properly set in blade holders.</li> <li>4. Forcing workpiece into blade or sideloading blade excessively.</li> </ol> | <ol style="list-style-type: none"> <li>1. Adjust tension.</li> <li>2. Use correct and proper cutting technique.</li> <li>3. Remove blade holder assembly and re-install blade correctly in holders.</li> <li>4. Do not force workpiece. Allow the blade to cut smoothly. Avoid applying excessive sideload.</li> </ol>   |
| Blade twisted or do not cut straight line. | <ol style="list-style-type: none"> <li>1. Blade holders not set correctly in rocker arm groove.</li> </ol>   | <ol style="list-style-type: none"> <li>1. Adjust blade holders. Tighten lock knob.</li> </ol>  |

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## ASSEMBLY DIAGRAM

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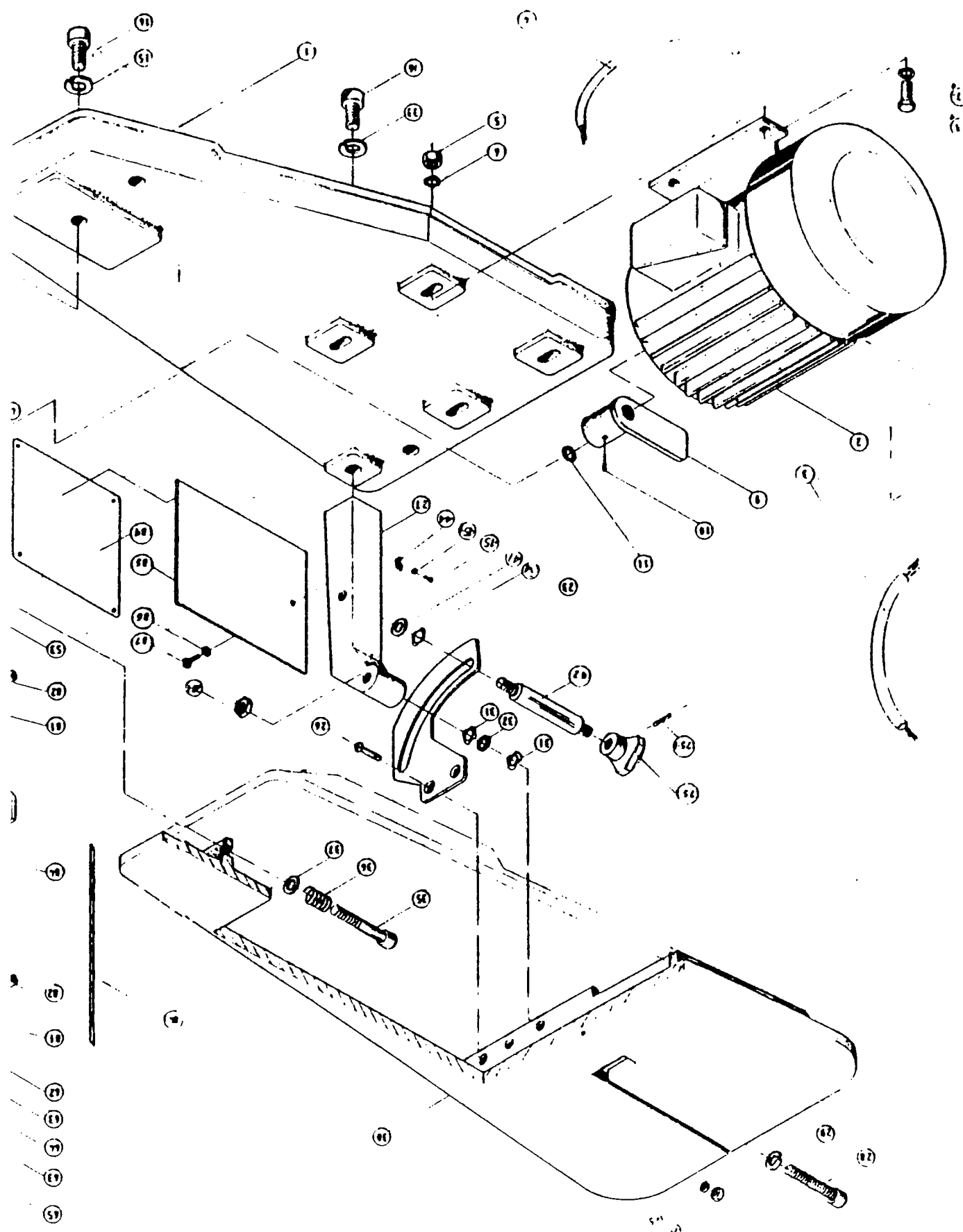


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# PARTS LIST

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| PART NO. | NAME               | SIZE        | PART NO. | NAME             | SIZE                |
|----------|--------------------|-------------|----------|------------------|---------------------|
| 01       | Base               |             | 45-1     | Washer           | 1/4"                |
| 02       | Motor              |             | 46       | Hex. Nut         | M5                  |
| 03       | Cord               |             | 47       | Spring Washer    | φ1/4"               |
| 04       | Motor Wire         |             | 48       | Link Assembly    |                     |
| 05       | Hex. Nut           | M6          | 49       | Bushing          |                     |
| 06       | Spring Washer      | φ1/4"       | 50       | Washer           | di:φ1/4", do:φ9     |
| 07       | Washer             | φ1/4"       | 51       | Hex. Soc. Screw  | M5x25L              |
| 08       | Hex. Head Bolt     | M6-25       | 52       | Retaining Clip   |                     |
| 09       | Eccentric          |             | 53       | Bushing          |                     |
| 10       | Headless Set Screw | M5-5        | 54       | Spring Washer    | φ5/32"              |
| 11       | Bushing            | T=4         | 55       | Hex. Soc. Screw  | M4x12L              |
| 12       | Ball Bearing       | 625zz       | 56       | Upper Rocker Arm |                     |
| 13       | Spring Washer      | φ3/16", t=1 | 57       | Spindle Bushing  |                     |
| 14       | Hex. Soc. Screw    | M5x16       | 58       | Hex. Head Bolt   |                     |
| 15       | Spring Washer      | φ5/16"      | 59       | Hex. Soc. Screw  | M4x20L              |
| 16       | Hex. Soc. Screw    | M8-25       | 60       | Spring Washer    | φ5/32"              |
| 17       | Body               |             | 61       | Washer           | φ5/32"              |
| 18       | Rubber Bushing     |             | 62       | Retaining Block  |                     |
| 19       | Lower Rocker Arm.  |             | 63       | Washer           | φ1/4"               |
| 20       | Spindle Bushing    |             | 64       | Spring           |                     |
| 21       | Bolt               |             | 65       | Lock Knob        | M6x15L              |
| 22       | Bevel Scale        |             | 66       | Set Plate        |                     |
| 23       | Angle Set          |             | 67       | Spring Washer    | φ5/32"              |
| 24       | Hex. Nut           | M6          | 68       | Hex. Soc. Screw  | M4x12L              |
| 25       | Spring Washer      | φ1/4"       | 69       | Clamp Bolster    |                     |
| 26       | Screw              | M6-15       | 70       | Tension Rod      |                     |
| 27       | Table Bracket      |             | 71       | Clamp Bolster    |                     |
| 28       | Hex. Soc. Screw    | M6x35L      | 72       | Set Plate        |                     |
| 29       | Spring Washer      | φ1/4"       | 73       | Spring Washer    | φ5/32"              |
| 30       | Table              |             | 74       | Hex. Soc. Screw  | M4x12L              |
| 31       | Wavy Washer        | WW-6        | 75       | Tension Knob     |                     |
| 32       | Washer             | φ1/4", t=1  | 76       | Blade Guard      |                     |
| 33       | Spring Washer      | φ5/16"      | 77       | Rocker Arm Cover |                     |
| 34       | Wavy Washer        | WW-6        | 78       | Spring Washer    | φ1/4"               |
| 35       | Hex. Sec. Screw    | M6x45L      | 79       | Screw            | M6x12L              |
| 36       | Spring             |             | 80       | Spring           |                     |
| 37       | Washer             | φ1/4"       | 81       | Blade Holder     |                     |
| 38       | Hexagon Nut        |             | 82       | Hex. Soc. Screw  | M4x15L              |
| 39       | Spring Washer      | φ1/4"       | 83       | Blade Clip       |                     |
| 40       | Hex. Head Screw    | M6x25L      | 84       | Blade            | plain-end, pin-type |
| 41       | Washer             | φ1/4", t=1  | 85       | Iron Plate       |                     |
| 42       | Washer             | φ1/4" ↓     | 86       | Spring Washer    | φ1/4"               |
| 43       | Bevel Lock Knob    | M6x15L      | 87       | Screw            | M6x12L              |
| 44       | Angle Pointer      |             | 88       | Switch           |                     |
| 45       | Screw              | M6x8L       | 75-1     | Pin              | φ2.5-12L            |



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