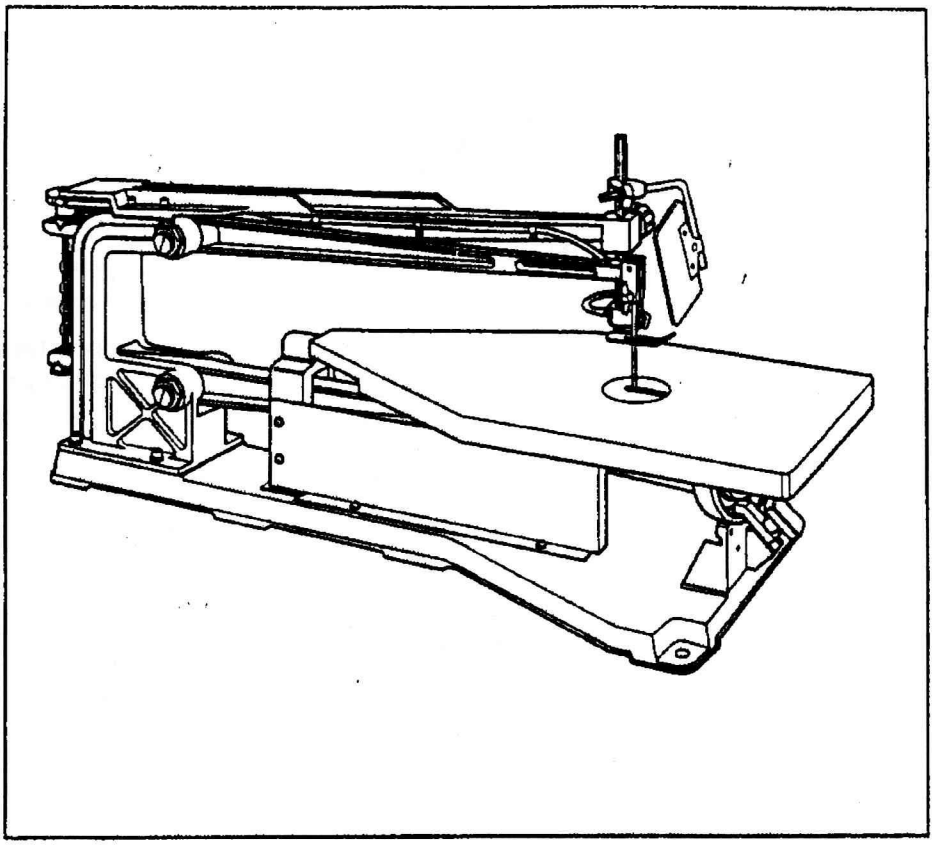
4675-250-70

SEARS

OWNER'S MANUAL

Model No.
149.236160



Caution:
Read and Follow All Safety Rules and Operating Instructions Before Assembly and First Use of This Equipment.

CRAFTSMAN®

23-Inch SCROLL SAW

- Safety Instructions
- Warranty
- Operation
- Care and Maintenance
- Troubleshooting
- Parts List

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.

7/95

PART NO. 4675-250-70

General Safety Rules For Power Tools

◆ **KNOW YOUR POWER TOOL.**
For your own safety, read the owner's manual carefully. Learn the application and limitations as well as the specific hazards peculiar to this tool.

◆ **GROUNDING INSTRUCTIONS**

◇ **All grounded, cord-connected tools:**

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided—if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

Repair or replace damaged or worn cord immediately.

◇ **Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating less than 150 volts:**

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch A in Figure 1. The tool has a grounding plug that looks like the plug illustrated in Sketch A in Figure 1. A temporary adapter, which looks like the adapter illustrated in Sketches B and C, may be used to connect this plug to a 2-pole receptacle as shown in Sketch B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

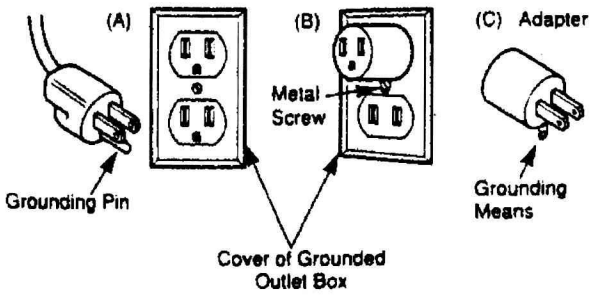


Figure 1 – Grounding Methods

◆ **KEEP GUARDS IN PLACE** and in working order.

◆ **REMOVE ADJUSTING KEYS AND WRENCHES.**
Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning on.

◆ **KEEP WORK AREA CLEAN.**
Cluttered areas and benches invite accidents.

◆ **DON'T USE IN DANGEROUS ENVIRONMENT.**
Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.

◆ **KEEP CHILDREN AWAY.**
All visitors should be kept safe distance from work area.

◆ **MAKE WORKSHOP KID PROOF** with padlocks, master switches, or by removing starter keys.

◆ **DON'T FORCE TOOL.**
It will do the job better and safer at the rate for which it was designed.

◆ **USE RIGHT TOOL.**
Don't force tool or attachment to do a job for which it was not designed.

◆ **USE PROPER EXTENSION CORD.**
Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The following table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Extension Cord Length	Wire Size, A.W.G.
25 Feet	18
50 Feet	16
100 Feet	16
150 Feet	14

◆ **WEAR PROPER APPAREL.**
Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.

◆ **ALWAYS USE SAFETY GLASSES.**
Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses; they are NOT safety glasses.

◆ **SECURE WORK.**
Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.

◆ **DON'T OVERREACH.**
Keep proper footing and balance at all times.

◆ **MAINTAIN TOOLS WITH CARE.**
Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

- **DISCONNECT TOOLS** before servicing or when changing accessories such as blades, bits, cutters, and the like.
- **REDUCE THE RISK OF UNINTENTIONAL STARTING.**
  Make sure switch is in off position before plugging in.
- **USE RECOMMENDED ACCESSORIES.**
  Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
- **NEVER STAND ON TOOL.**
  Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
- **CHECK DAMAGED PARTS.**
  Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function—check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- **DIRECTION OF FEED.**
  Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
- **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.**
  Don't leave tool until it comes to a complete stop.

Safety Rules For Scroll Saws

Safety is a combination of operator common sense and alertness at all times when the Scroll Saw is being used. Study these rules and General Safety Rules before operating Scroll Saw, and retain them for future use.

- **WEAR EYE PROTECTION.**
- **INSTALL BLADE** with teeth pointing down toward table.
- **KEEP FINGERS** at safe distance from blade.
- **NEVER LEAVE SCROLL SAW WORK AREA** with power on, or before blade has come to a complete stop.
- **ADJUST BLADE TENSION** by hand (no tool) before turning on.
- **MAINTAIN CONTROL** by holding workpiece firmly against table at all times.
- **MAKE NO ADJUSTMENTS** until Scroll Saw has come to complete stop.
- **BE SURE SCROLL SAW** is securely fastened to a stand or workbench before operating.
- **THIS SCROLL SAW IS INTENDED** for indoor use only.
- **DO NOT CUT PIECES OF MATERIAL** too small to hold by hand.
- **AVOID AWKWARD HAND POSITIONS** where a sudden slip could bring a hand in contact with blade.
- **NEVER TURN YOUR SCROLL SAW ON** before clearing table of all objects.
- **SUPPORT WORKPIECE ADEQUATELY** at all times during operation.
- **NEVER FORCE CUTTING ACTION.**
- **USE CAUTION WHEN CUTTING** off material with an irregular cross section that could pinch blade. Be sure material lays flat on the table without rocking.
- **USE CAUTION WHEN CUTTING** off round material such as dowels. They have a tendency to roll while being cut, causing the blade to grab the material.
- **IF THE BLADE BINDS** while backing out of a cut, turn off Scroll Saw and wedge cut open while backing out blade.
- **DO NOT PERFORM LAYOUT,** assembly or setup work on table while Scroll Saw is operating.
- **TURN SAW OFF AND UNPLUG** before removing or installing blades or attachments.
- **IF ANY PART IS MISSING OR DAMAGED** in any way, shut off power switch and unplug. Replace faulty parts before resuming operation.

WARNING: ALWAYS KEEP ALERT. Do not allow familiarity gained from frequent use of Scroll Saw to cause a careless mistake. A careless fraction of a second is sufficient to inflict severe personal injury.

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 complying with ANSI Z87.1 before commencing power tool operation. Safety Goggles are available at Sears Stores or Sears Service Centers.

Warranty

FULL ONE-YEAR WARRANTY ON CRAFTSMAN® SCROLL SAW

For one year from the date of purchase, when this Craftsman® Scroll Saw is maintained, lubricated, and adjusted according to the operating and maintenance instructions in the operator's manual, Sears will repair, free of charge, any defect in material or workmanship.

This warranty excludes the saw blades, which are expendable parts and become worn during normal use.

WARRANTY SERVICE IS AVAILABLE BY CONTACTING THE NEAREST SEARS SERVICE CENTER IN THE UNITED STATES. THIS WARRANTY APPLIES ONLY WHILE THIS PRODUCT IS IN USE IN THE UNITED STATES.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Sears, Roebuck and Co., Dept. 817WA, Hoffman Estates, IL 60179

Specifications

Drive:	2-Speed Direct Drive
Speeds	1725 Strokes per Minute 825 Strokes per Minute
Motor:	Totally enclosed, fan cooled 1/6 HP, 1725 RPM, 1.4 Amps @ 115 VAC, 60 Hz
Blade:	5" plain end or pin end type blades 5 blades and blade holder included
Stroke:	3/4"
Max Cut Thickness:	2-5/8"
Throat:	23"
Table:	10" wide by 20-1/2" deep
Tilt	0° to 45° to the left Built-in protractor gauge
Width:	12-1/2"
Length:	29-1/2"
Height:	15"
Weight:	90 lbs.

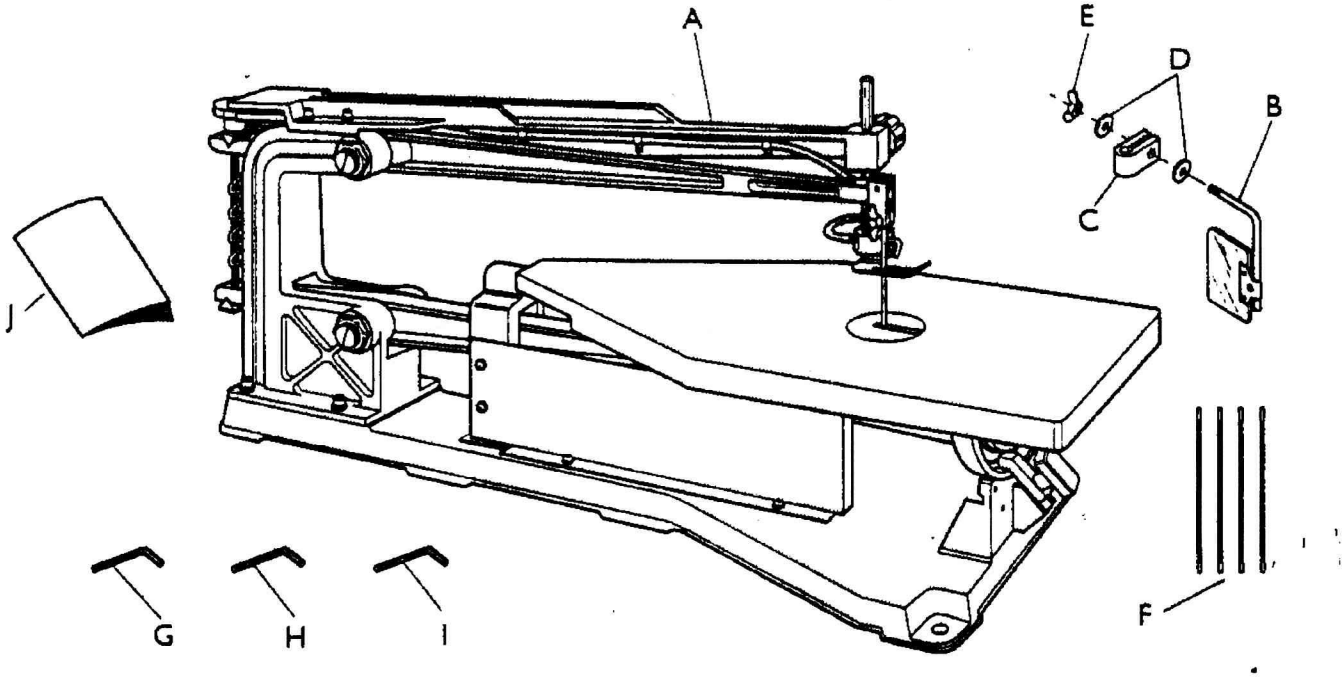
Table of Contents

Unpacking and Checking Contents

Model 149.23616 Scroll Saw is shipped complete in one carton. Carefully unpack and separate parts from packing material. Check loose parts against Table of Loose Parts on this page. If any parts are missing or damaged, do not attempt to assemble, plug in power cord or turn on power switch until replacement parts are obtained and installed. Some parts such as table are coated with rust preventative that can be removed with a soft cloth soaked in kerosene. Do not use acetone, gasoline, or lacquer thinner; these are dangerous and may also damage plastic and rubber parts of Scroll Saw.

Table of Loose Parts

Item Letter	Description	Qty.
A	Scroll Saw	1
B	Eye Shield Assembly	1
C	Support Rod Clamp	1
D	1/4" Flat Washer	2
E	1/4-20 Wing Nut	1
F	Replacement Blades	4
G	3 mm Hex Key (Allen Wrench)	1
H	4 mm Hex Key (Allen Wrench)	1
I	5 mm Hex Key (Allen Wrench)	1
J	Owners Manual	1



Accessories

The Craftsman 23-Inch Scroll Saw uses 5-inch-long blades of either plain- or pin-end style. A full selection of scroll saw blades are available through Sears Retail Stores and Sears Service Centers. The following is a list of available blades:

Pin-end blades

Width In.	Teeth Per Inch	Thickness	Use for	Catalog Number
0.110	10	0.020	Wood, Metal	26870
0.110	15	0.020	Wood, Metal	26873
0.055	18	0.010	Soft wood	26879
0.110	20	0.020	Soft wood	26872

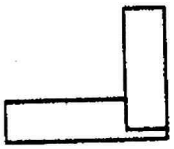
Plain-end blades

Width In.	Teeth Per Inch	Thickness	Use for	Catalog Number
0.110	15	0.020	Wood, Metal	26874
0.110	10	0.020	Wood, Metal	26875
0.110	20	0.020	Wood, Metal	26876

Assembly Tools Required

The Craftsman 23-Inch Scroll Saw is fully assembled at factory with exception of Safety Eye Shield. No tools are required to attach eye shield. During assembly and setup, it is important to check alignment and settings. For this operation, the following tools are required.

Medium Slotted Screwdriver



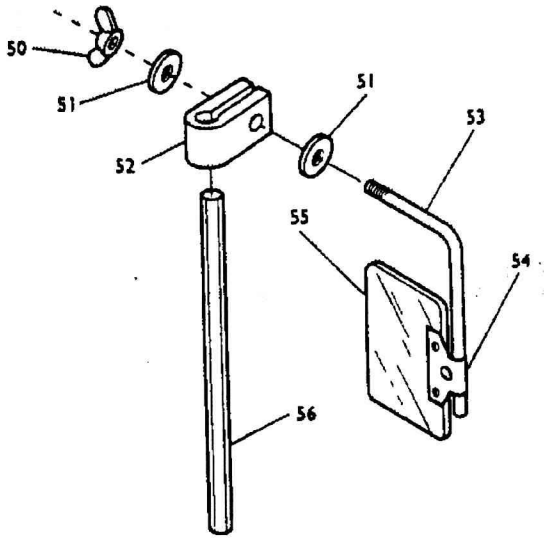
Steel Square

Assembly Instructions

Eye Shield

WARNING: BEFORE USING SCROLL SAW, BE SURE EYE SHIELD IS INSTALLED AND PROPERLY ADJUSTED. Always wear safety goggles complying with ANSI Z87.1 before commencing power tool operation.

- Remove Eye Shield assembly (REF 53-55), Support Rod Clamp (REF 52), Wing Nut (REF 50), and two Washers (REF 51) from loose parts bag.
- Slip Clamp down over top of Support Rod (REF 56) with split end towards rear of machine.
- Place one washer on shaft of Eye Shield Rod (REF 53) and push rod through hole in split end of clamp.
- Place other washer on rod and snug with Wing Nut.
- Height and angle of Eye Shield should be adjusted so it is directly between cutting area and your eyes when in your normal operating position.
- Be sure Eye Shield is adjusted correctly for you before each use.



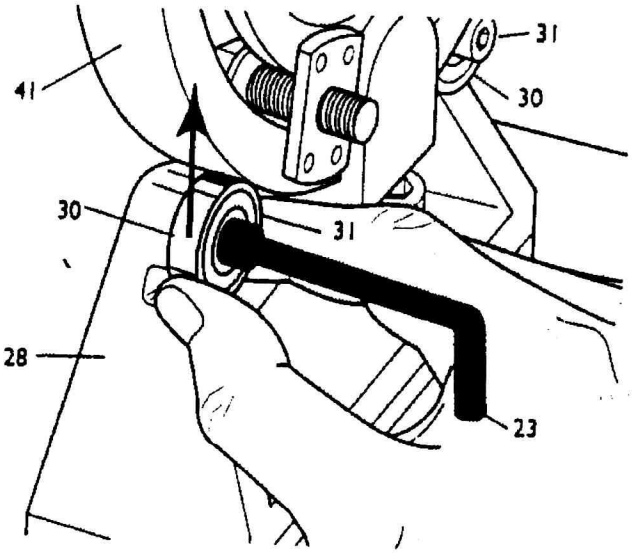
Checking Tilt Indicator

WARNING: MAKE SURE POWER SWITCH IS OFF AND POWER CORD IS UNPLUGGED BEFORE PERFORMING ANY CHECKS OR ADJUSTMENTS. Failure to do so could result in accidental starting, causing severe personal injury.

- Table Support Bearings and Tilt Indicator were factory set; however, normal handling during shipment may have changed settings.

Setting Table Support Bearings

◆ Loosen Table Angle Clamp Knob (REF 46) and check table tilt motion. Table should rotate freely on two Table Support Bearings (REF 30) and tilt from 0 to 45 degrees.



◆ If Table Angle Support (REF 41) rubs or binds on Base Angle Support (REF 28), Table Support Bearings must be adjusted.

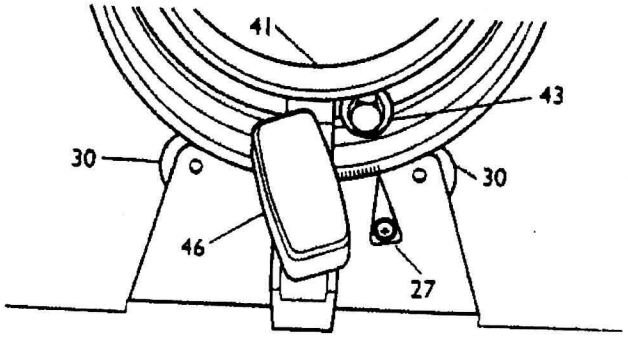
◆ Loosen Bearing Mount Socket-Head Cap Screws (REF 31) with 5mm Hex Handle (REF 23) provided.

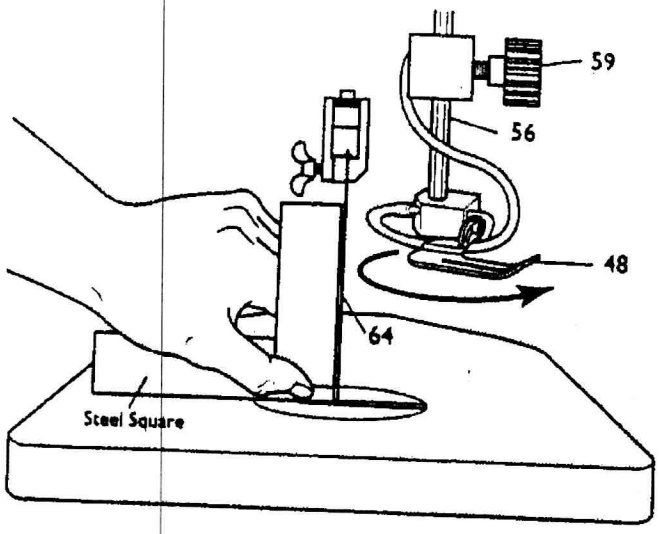
◆ Lift up on Table Support Bearing and snug cap screws. Repeat adjustment until table tilting action is smooth and easy.

◆ Tighten Bearing Mount Socket-Head Cap Screws.

Setting Tilt Indicator

After any adjustment of support bearings, the setting of Angle Support (REF 41) and Tilt Indicator Pointer (REF 27) must be checked.





◆ Loosen Hold-Down Clamp Knob (REF 59) holding Support Rod (REF 56) and Hold-Down Foot (REF 48).

◆ Loosen blade tension and slide Upper Blade Holder from Blade Holder Clip (REF 67). Hold Saw Blade (REF 64) forward while rotating Hold-Down Foot counterclockwise, out of the way.

◆ Push Upper Blade Holder back into position under Blade Holder Clip and tighten blade tension until saw blade is straight and vertical.

◆ Loosen Table Angle Clamp Knob (REF 46) and place a Steel Square against left rear side of blade behind teeth.

◆ Tilt table until blade is at a perfect right angle to table and tighten Hold-Down Clamp Knob.

NOTE: It may be necessary to loosen 5/8" Hex-Head Bolt (REF 43) in Table Angle Support to reach a perfect 90 degrees. This bolt acts as a positive stop to allow the table to always return to 90 degrees. After Table is set square to blade, slide Hex-Head Bolt down until a flat side on bolt head is in direct contact with Base Angle Support (REF 28) and tighten. This is your 0-degree stop and will ensure Table always returns square to Blade.

◆ Using a Flat-Bladed Screwdriver, loosen screw holding Tilt Indicator Pointer (REF 27), and adjust pointer until it is aligned to 0-degree mark. Tighten screw.

◆ Release blade tension and remove upper blade holder from upper arm. Rotate Hold-Down Foot back into position and install and re-tension blade.

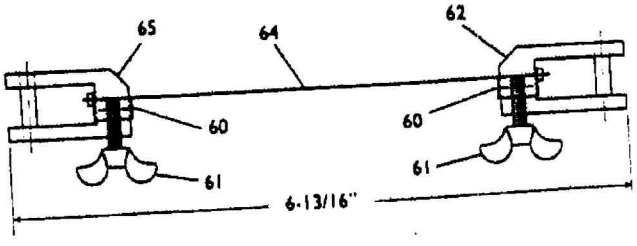
Removing and Installing Blades

WARNING: MAKE SURE POWER SWITCH IS OFF AND POWER CORD IS UNPLUGGED BEFORE PERFORMING ANY CHECKS OR ADJUSTMENTS. Failure to do so could result in accidental starting, causing severe personal injury.

- Remove Table Insert (REF 38) from Table.
- Release Blade tension by turning Tension Knob (REF 76) counterclockwise.
- Slide Upper (REF 65) and Lower Blade Holder (REF 62) from Blade Holder Clips (REF 67) on Upper (REF 66) and Lower Arms (REF 63).
- Lay Blade Assembly on a flat surface with Upper Blade Holder to your left.
- Loosen Thumb Screw (REF 61) in each holder and remove Blade (REF 64).
- Place New Blade into holders with cutting edge up and points of Saw Blade pointing toward your right.

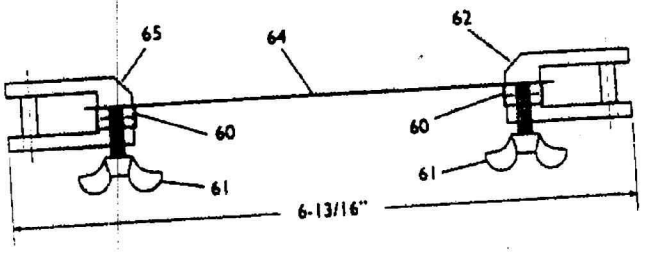
Pin-Type Blade

- If new blade is a 5-Inch Pin Type, pins should be tight against inside surface of Blade Holder and Blade Holder Spring (REF 60). Overall length of assembly should be between 6-3/4 and 6-7/8 inches as shown.
- If overall assembly length is shorter than 6-3/4 inches, remove blade from holder and press pins out. Return blade to holder and use plain-end blade installation instructions.



Plain-End Blade

- When installing a plain-end blade, let ends of blade extend through each holder an equal amount on each end, and set overall length to between 6-3/4 and 6-7/8 inches as shown.
- When blade assembly length is set properly, tighten both Thumb Screws. Be sure holders and blade all are in-line with one another when laid on flat surface.



Installing Blade Holder Assembly

- Lower assembly through opening in Table and press into Lower Arm Blade Holder Clip first. Press upper Holder Pin into Upper Arm Blade Holder Clip. Check that both Holder Pins are fully engaged into Arm Blade Holder Clips.

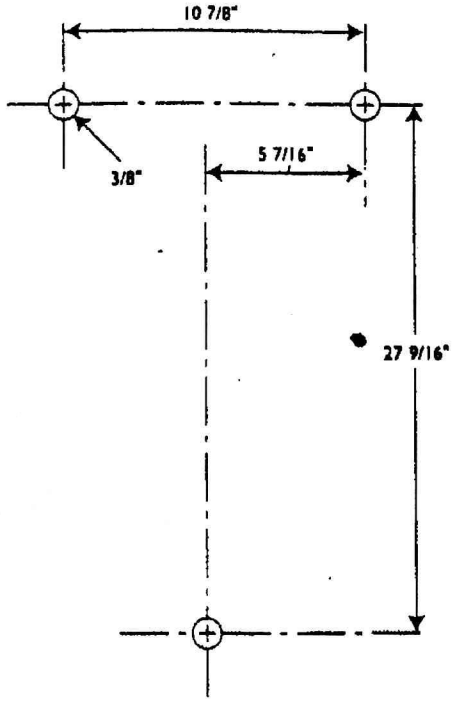
WARNING: BE SURE BLADE IS MOUNTED WITH TEETH POINTING DOWN TOWARDS TABLE. Blades mounted pointing upward can lift workpiece and may cause injury or ruin blades.

- Carefully turn Blade Tension Knob clockwise until all slack is removed from Blade. Be sure Holder Pins are still fully engaged in Arm Blade Holder Clips. Blade should be tight. Check tension by "plucking" blade as you would tune a guitar string. A feel for correct tightness comes with experience. A good solid "ping" when plucked is a good starting point. If left too loose, the blade will bend and break before its teeth wear out. A blade stretched too tight will probably break as soon as you start cutting.
- Replace Table Insert.
- Before turning on power, move arm up and down by hand to ensure blade assembly is properly installed.

Installation

If you intend to use your Scroll Saw in a permanent location, it should be fastened securely to a firm supporting surface such as a workbench or tool stand.

- Drill holes completely through supporting surface at locations shown.
- Bolt each foot securely using 1/4 inch bolts of sufficient length to pass through foot, supporting surface and any washers used. A lockwasher should be used at each foot and assembly secured with 1/4 inch nuts.



If Scroll Saw is to be used in a portable application, it is recommended that it be secured to a mounting board of sufficient size to prevent tipping of Scroll Saw during use.

- Use a good grade of 3/4 inch thick minimum plywood or particle board large enough to extend at least 2 inches beyond Scroll Saw Base.
- Mount Scroll saw to Mounting Board using hole pattern shown.
- Before each use, clamp mounting board securely to a workbench or stable supporting surface.

Controls and Adjustments

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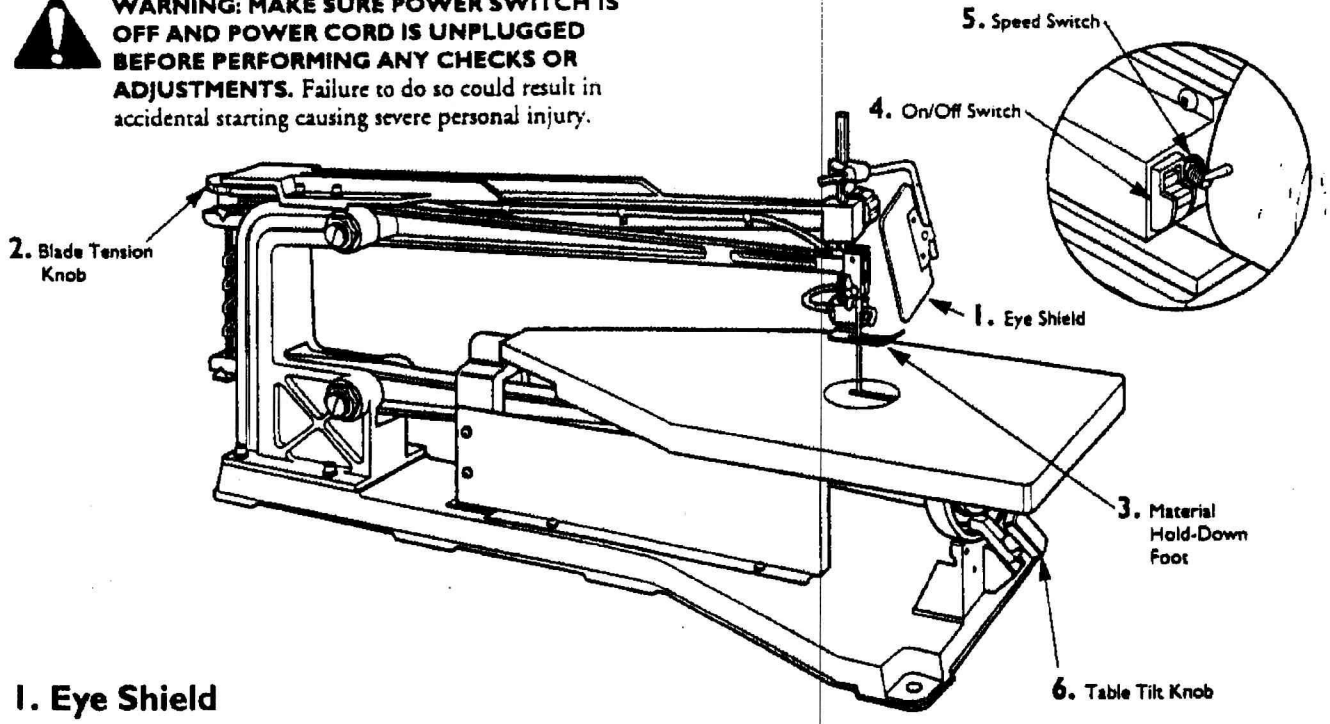


1. Eye Shield

The Eye Shield is designed to protect operators eyes from saw dust and in case of blade breakage. It should be moved until it is in direct line between operators eyes and point of contact between workpiece and Saw Blade.

WARNING: BEFORE USING SCROLL SAW, BE SURE EYE SHIELD IS INSTALLED AND PROPERLY ADJUSTED. Always wear safety goggles complying with ANSI Z87.1 before commencing power tool operation.

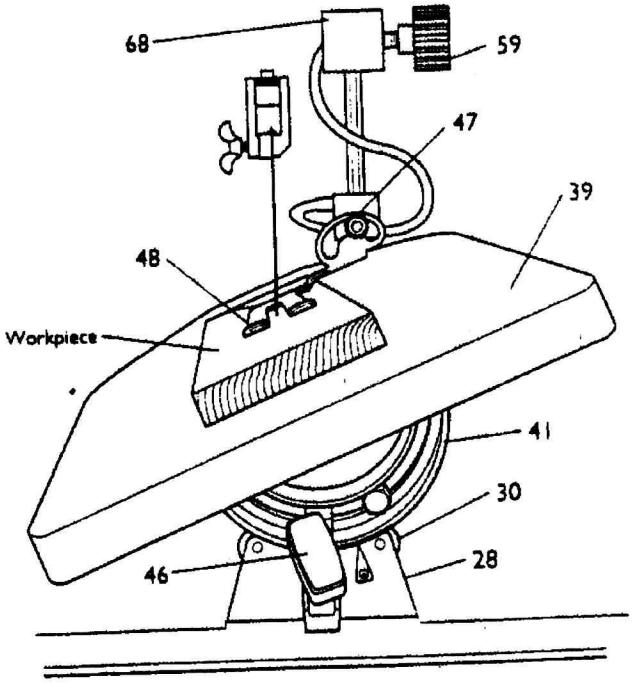
2. Blade Tension Knob

Blades should always be tight while cutting. Check tension by "plucking" blade as you would tune a guitar string. A feel for correct tightness comes with experience. A good solid "ping" when plucked is a good starting point. If left too loose, blade will bend and break before its teeth wear out. A blade stretched too tight will probably break as soon as you start cutting.

- Turn Blade Tension Knob (REF 76) clockwise to tighten. Wide, thick blades can take more tension than thin, delicate blades.
- Be sure that Saw Blade teeth point downward when installed on Saw. Incorrectly mounted blades will lift workpiece instead of cutting.
- Before plugging Scroll Saw in or turning on Power Switch, move upper arm throughout an entire cycle to be sure blade is properly installed and does not come in contact with Table or Table Insert (REF 38).

3. Material Hold-Down Foot

A Material Hold-Down Foot (REF 48) is supplied to keep workpiece from lifting off Table during cutting. This foot should be adjusted for each different thickness workpiece.



- Loosen Hold-Down Clamp Knob (REF 59) on right front side of Support Beam (REF 68).
- Raise Hold-Down Foot until workpiece will fit under without binding.
- Tighten Hold-Down Clamp Knob.
- When cutting on an angle, Hold-Down Foot must be adjusted to match angle of Table pivot. Set Table Angle following instructions in "Table Tilt" Section.
- Loosen Hold-Down-Foot Socket-Head Cap Screw (REF 47) with 4mm Hex Handle (REF 22) provided.
- Loosen Hold-Down Clamp Knob and slide Hold-Down Foot flush to Table Top.
- Rotate Hold-Down Foot to match angle of Table.
- Tighten Foot Socket-Head Cap Screw.
- Adjust Foot height for workpiece thickness and tighten Hold-Down Clamp Knob.

4. ON/OFF Switch

The ON/OFF Switch is part of the Motor Assembly (REF 18) on right side of tool. Up position is *on*. Down position is *off*. A Switch Key is provided, that when removed, allows switch to be locked in *off* position. To Lock Switch *off*, push to *off* position and pull Lock Key out of Switch. Store key in a safe place out of the reach of children.

5. Speed Switch

The 23-Inch Scroll Saw is provided with a two-speed motor that runs at 1725 S.P.M. on high-speed and 825 S.P.M. on low-speed setting. The speed can be changed using a motor-mounted switch directly behind the ON/OFF switch. The speed switch is marked H for high speed and L for low speed.

6. Table Tilt

The Work Support Table (REF 39) can tilt up to 45 degrees to the left (counterclockwise) to allow bevel cuts. Loosen Table Angle Clamp Knob (REF 46) and check table tilt motion. Table should rotate freely on two Table Support Bearings (REF 30) and tilt from 0 to 45 degrees. If Table Angle Support (REF 41) rubs or binds on Base Angle Support (REF 28), Table Support Bearings must be adjusted. See "Checking Tilt Indicator" in Assembly Instructions for adjustment.

- Rotate table to desired angle indicated on protractor gauge molded into Table Angle Support.
- Tighten Table Angle Clamp Knob.

Operating Instructions

A Scroll Saw is primarily a curve-cutting tool designed to make intricate, tight-radius curve cutting possible. Do not attempt to operate your scroll saw until you read and understand the following instructions.

Basic Cutting

Although a scroll saw may seem to be a simple tool, a period of learning and experience is necessary to obtain best results. Expect to break a few blades and make some bad cuts at first. Keep the following guidelines in mind as you experiment with your new tool.

- This scroll saw is intended to cut wood or wood products only.
- Blade teeth cut only on down stroke. Guide workpiece slowly into blade. Do not push or force blade.
- When cutting a curve, allow blade to cut its way around curve. Turning workpiece too fast can bind and twist blade resulting in blade bending or breaking. A bent blade will not track properly and must be replaced.
- Be aware that blades have a natural tendency to follow grain of wood.
- Although this scroll saw can easily cut stock up to 2-5/8" thick, best results are obtained when cutting a workpiece 1" thick or less. Take extra care in thicker stock to cut very slowly and avoid twisting the blade.
- Blade life will vary depending on material you are cutting and technique. Average tooth life will vary from 1/2 to 2 hours of continuous cutting. Replace blades whenever you feel a need to push workpiece into blade or it refuses to track around a corner.
- For very intricate work, use low speed and allow blade to nibble around workpiece.

Inside Cutting

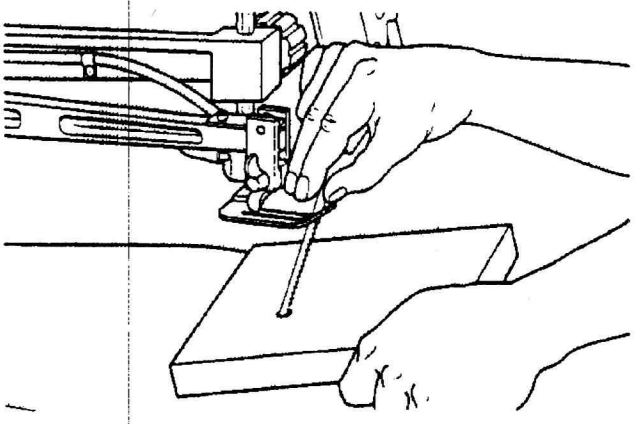
WARNING: ALWAYS TURN OFF POWER SWITCH AND UNPLUG TOOL BEFORE REMOVING OR CHANGING BLADES. Failure to do so could result in accidental starting causing severe personal injury.

To perform cuts inside a workpiece:

- Drill a 1/4" hole inside the area to be cut.
- Release blade tension and remove upper blade holder from upper arm.

NOTE: Pin-type blades are preferred for inside cutting since they can be removed and replaced quickly without adjustment.

- Remove upper blade holder from blade and lower workpiece hole down over blade onto table.
- Install blade back into upper blade holder and attach to upper arm.



- Reset blade tension before cutting.
- Repeat this process to remove blade when finished with inside cut.

Changing Speeds

This scroll saw is equipped with a two-speed motor. For general cutting, high is the preferred speed. When close and tight cuts are required, low speed is a better choice.

Speed changes can be made "on the fly." It is not necessary to stop motor before changing speeds. To change speed, move speed switch to other position. High speed is up. Low speed is down.

Angle Cutting

WARNING: ALWAYS TURN OFF POWER SWITCH AND UNPLUG TOOL BEFORE CHANGING TABLE. Failure to do so could result in accidental starting causing severe personal injury.

This scroll saw is capable of angle or bevel cuts. Always remember that when cutting with the table tilted, gravity tends to help the blade to wander. Also, any natural tendency to follow the grain is increased.

- Tilt table by following instructions in "Controls and Adjustments" section.
- Adjust Hold-Down Foot to match angle of table and thickness of workpiece. See "Controls and Adjustments" section.

Angle and bevel cuts are easier at low speed until experience is gained. Always practice on a piece of scrap wood when trying a technique for the first time.

Customer Responsibilities

Your 23-Inch Scroll Saw is intended for use in a home woodworking shop.

- Never expose to rain or use in damp locations.
- Never use in an explosive atmosphere. Normal sparking of motor may ignite fumes.
- Dull or bent blades should always be removed and replaced.
- Never place your hands near or try to adjust moving blades. Always turn off and unplug tool before adjusting blades.
- Never operate the scroll saw unless the Material Hold-Down Foot is adjusted for the thickness of material to be cut. Failure to adjust will allow workpiece to lift and could cause personal injury.
- This Craftsman Scroll Saw is equipped with cast iron table because of its natural lubrication and resistance to marking fine surfaces. Without proper care, cast iron does tend to rust. Periodic hand application and polishing with a good quality automotive liquid or paste wax will prevent rust and enhance the appearance and operation of the tool for years to come.
- This Craftsman scroll saw requires very little care other than the changing of blades. Follow the lubrication and adjustment procedures listed in the Service and Adjustments section to maintain proper operation of this tool.

Blade Breakage

Primary causes for blade breakage are *overtensioning* and *undertensioning*. Other causes are:

- **Aggressive feed of workpiece into blade.** Feeding workpiece too fast will bend blade toward rear of machine. Broken parts will show this bend.
- **Twisting or bending blade.** A Scroll Saw can make very sharp corners, especially with thin, narrow blades. The blade sets speed for turning corners. Feed slowly and allow blade to *cut* around corner.
- **Worn-out teeth.** Used properly, Scroll Saw blades can have long and productive lives. Abrasive material or any composition material made with a binder or glue will shorten blade life. Worn blades will appear shiny and the teeth will not feel sharp to the touch.
- **Blade mounted upside down.** Blades cut on the down stroke and allow workpiece to be supported by the saw table. An improperly mounted blade will try to lift workpiece on upstroke and can bend or break.

Motor

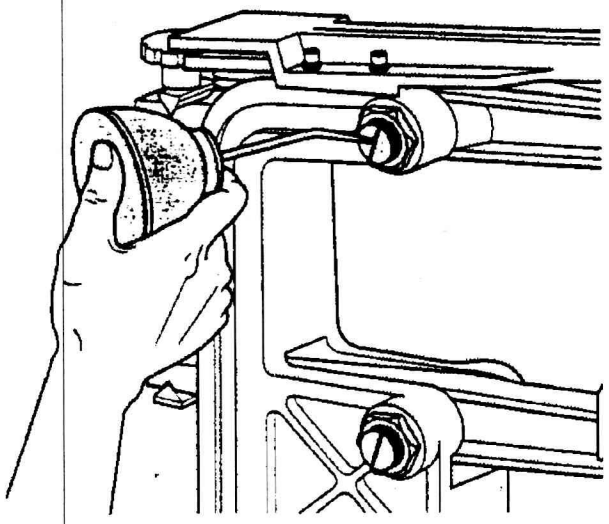
This Craftsman Scroll Saw is equipped with a permanently lubricated motor.

- Do not attempt to lubricate or service motor or its internal parts.
- If Power Cord becomes worn or cut, replace it immediately.

Lubrication

Lubricate the Arbor bushings (REF 84) approximately every 50 hours of operation and before use after storage or long periods of inactivity.

- Use SAE 20 oil or a light machine oil.
- Apply oil through small hole in center of each Arbor Adjustment Screw (REF 82).



Service and Adjustments

WARNING: ALWAYS TURN OFF POWER SWITCH AND UNPLUG TOOL BEFORE PERFORMING ANY SERVICE OR ADJUSTMENT. Failure to do so could result in accidental starting causing severe personal injury.

Arbor Bearing Adjustment

This Craftsman Scroll Saw is designed to give many years of precision cutting. The long upper and lower arms are held in position by adjustable bushings. If the blade starts to wander or if there is play from side to side, these bushings probably need adjustment. It is very important to follow these instructions carefully and never overtighten the bushings; permanent damage to the bushings or arms could result.

- Loosen one Arbor Adjustment Lock Nut (REF 83) at a time.
- With a Flat-Bladed Screwdriver, gently turn Arbor Adjustment Screw (REF 82) in until a slight resistance is felt—this may be less than 1/8 turn.
- Move arms up and down by hand to check for resistance to movement. If resistance is felt, loosen screw and readjust.
- Hold position of Adjustment Screw with screwdriver while tightening Lock Nut. This is very important since the screw can turn in and overtighten the bushing as you tighten the Lock Nut.
- Repeat procedure for other three Arbor Bushings. Always check motion after Lock Nuts are tightened.

General Maintenance

Keep your Craftsman Scroll Saw clean and adjusted properly for maximum performance and longevity. Do not allow pitch wood residue, or saw dust to build up on table or motor housing. Clean them frequently with Sears Gum and Pitch Remover, stock number 49191. After cleaning, apply a fresh coat of automobile paste wax to the unpainted portion of the table. This will help prevent rust from forming.

CAUTION: DO NOT AT ANY TIME LET BRAKE FLUIDS, GASOLINE, PENETRATING OILS, ETC. COME IN CONTACT WITH PLASTIC OR RUBBER PARTS. They contain chemicals that can damage and/or destroy plastics and rubber used in this tool.

Unplug tool when not in use.

Storage

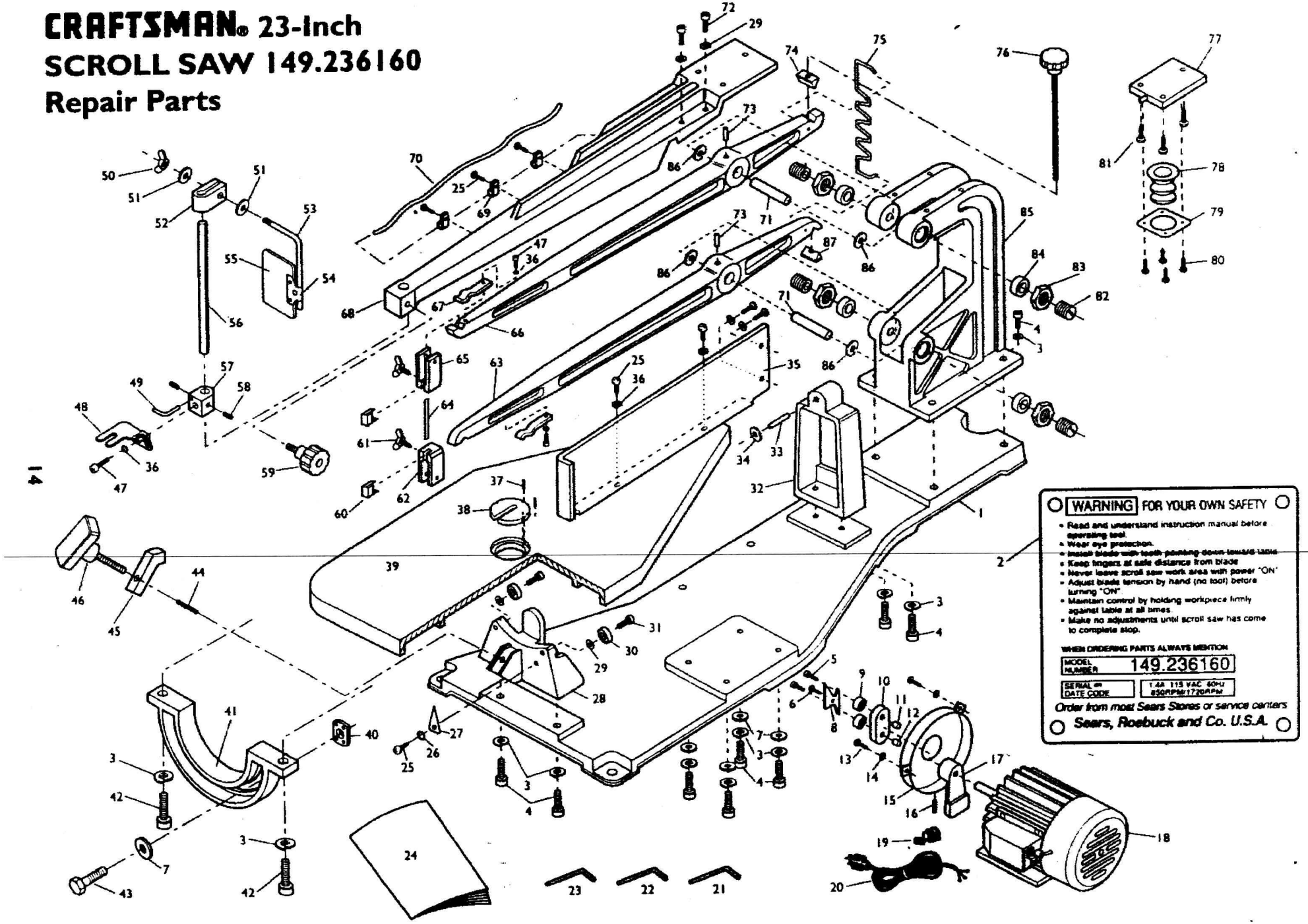
At times it may become necessary to store your Scroll Saw for an extended period of time. No special storage instructions are required. A fresh coat of automotive liquid or paste wax on the work table will protect the cast iron from rust. Fitted tool covers are available for most tools and are a good idea to protect the tools from moisture and dust accumulation.

Troubleshooting

Trouble	Probable Cause	Remedy
Breaking Blades.	◆ Wrong Tension. ◆ Overworking blade. ◆ Wrong blade application. ◆ Twisting blade in wood.	◆ Adjust blade tension. ◆ Reduce feed rate. ◆ Use narrow blades for cutting thin wood, wide blades for thicker wood. ◆ Avoid side pressure on blade.
Motor will not run.	◆ Defective cord or plug. ◆ Defective motor.	◆ Replace defective parts before using saw again. ◆ Any attempt to repair this motor may create a HAZARD unless repair is done by a qualified service technician.
Vibration NOTE: There will always be some vibration present when the saw is running because of the motor operation.	◆ Improper mounting of saw. ◆ Unsuitable mounting surface. ◆ Loose table or table resting against motor. ◆ Loose motor mounting.	◆ See mounting instructions in this manual for proper mounting technique. ◆ The heavier your workbench is, the less 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. ◆ Tighten table lock knob. ◆ Tighten motor mounting screws.
Blade Runout—Blade not in-line with arm motion.	◆ Blade holders not aligned.	◆ Loosen cap screws holding blade holder to arms. Adjust position of blade holders—Retighten holders.

CRAFTSMAN® 23-Inch SCROLL SAW 149.236160

Repair Parts



Ref. No.	Part No.	Description	Qty.
1	40301001	Base	1
2	4971-250-70	Warning Label	1
3	STD551131	5/16" Spring Lockwasher	14
4	STD513107	5/16-18 x 3/4 Socket-Heat Cap Screw	12
5	STD511010	#10-24 x 1 Socket-Head Cap Screw	2
6	STD610802	#8-18 x 1/4 Self-Tapping Screw	1
7	STD551031	5/16" Flat Washer	5
8	40101044	Connecting Rod Cover	1
9	C000006	625Z Ball Bearing	2
10	40101010	Connecting Rod	1
11	40101011	Upper Spacer	1
12	40101012	Lower Spacer	1
13	S0030410M	M4 x 10mm Round-Head Screw	3
14	S0230400M	4mm Spring Lockwasher	3
15	40101056	Pendulum Guard	1
16	STD502503	1/4-20 x 3/8 Socket Set Screw	1
17	40301012	Balance Weight	1
18	4675-220-70	Motor	1
19	S1026P3-4	Stain Relief Bushing	1
20	STD264949	Power Cord	1
21	4910-191-00	3 mm Hex Handle (Allen Wrench)	1
22	2289-001-00	4 mm Hex Handle (Allen Wrench)	1
23	2289-002-00	5 mm Hex Handle (Allen Wrench)	1
24	4675-250-70	Owner's Manual	1
25	STD511003	#10-24 x 3/8 Round Head Screw	7
26	STD551210	#10 Star Washer	1
27	40301032	Tilt Indicator Pointer	1
28	40301005	Base Angle Support	1
29	STD551125	1/4" Spring Lockwasher	6
30	C0000607	627Z Ball Bearing	2
31	STD512506	1/4-20 x 5/8 Socket Head Cap Screw	2
32	40301003	Rear Table Support	1
33	S0310525	5mm x 25mm Table Pivot Pin	1
34	STD551012	5mm Washer	
35	40301010	Side Cover	1
36	STD551110	#10 Spring Lockwasher	7
37	S0310305	3mm x 5mm Pin	2
38	40101036	Table Insert	1
39	40301004	Table	1
40	1147-000-00	5/16-18 Type P-4 Weld Nut	1
41	40301006	Table Angle Support	1
42	STD523106	5/16-18 x 5/8 Socket-Head Cap Screw	2
43	STD523106	5/16-18 x 5/8 Hex-Head Cap Screw	1
44	40301007	Spring	1

Ref. No.	Part No.	Description	Qty.
45	40301008	Table Tilt Clamp	1
46	40301009	Table Angle Clamp Knob	1
47	STD511003	#10-24 x 3/8 Socket-Head Cap Screw	3
48	40301028	Hold-Down Foot	1
49	40101030	Air Nozzle	1
50	STD541625	1/4-20 Wing Nut	1
51	STD551025	1/4" Flat Washer	2
52	40101043	Eye Shield Rod Clamp	1
53	40101042	Eye Shield Rod	1
54	40101054	Clip	1
55	40101041	Eye Shield	1
56	40301031	Support Rod	1
57	40101028	Holder Block	1
58	S0050605M	M6 x 6mm Socket Set Screw	2
59	40301029	Hold-Down Clamp Knob	1
60	40301026	Blade Holder Spring	2
61	4975-133-70	#10-24 Thumbscrew	2
62	40301025	Lower Blade Holder	1
63	40301014	Lower Arm	1
64	40101035-5	Saw Blade	5
65	40301024	Upper Blade Holder	1
66	40301013	Upper Arm	1
67	40301023	Blade Holder Clip	2
68	40301011	Support Beam	1
69	S1050600	Clamp	3
70	40301027	Tube	1
71	40301018	Arbor	2
72	STD502510	1/4-20 x 1 Socket-Head Set Screw	4
73	STD501003	#10-24 x 5/16 Socket Set Screw	4
74	40301020	Upper Rocker	1
75	40301019	Spring	1
76	40301021	Blade Tension Knob	1
77	40101008	Bellows Plate	1
78	40101006	Bellows	1
79	40101007	Anchor Plate	1
80	STD511006	#10-24 x 5/8 Round Head Screw	3
81	STD511002	#10-24 x 1/4 Socket Head Cap Screw	4
82	40301017	Arbor Adjustment Screw	4
83	40301016	Lock Nut	4
84	40301015	Arbor Bushing	4
85	40301002	Body	1
86	S0251000	Thrust Washer	4
87	4030-1022	Lower Rocker	1

SEARS

OWNER'S MANUAL

Model No.
149.236160

The model number of your scroll saw is found on the data label on the left side of the machine.

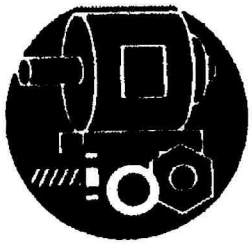
California Owners:
A unique serial code number is engraved on the underside of the machine.

When requesting service or ordering parts, always provide the following information:

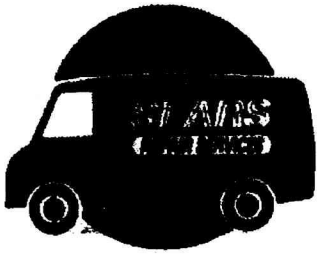
- Product type: 23" Scroll Saw
- Model Number 149.236160
- Part Number
- Part Description

CRAFTSMAN®

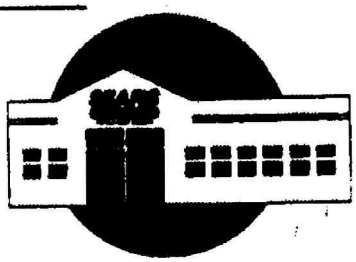
23-Inch SCROLL SAW



For the repair or replacement parts you need
Call 7 am - 7 pm, 7 days a week
1-800-366-PART
(1-800-366-7278)



For in-home major brand repair service
Call 24 hours a day, 7 days a week
1-800-4-REPAIR
(1-800-473-7247)



For the location of a Sears Repair Service Center in your area
Call 24 hours a day, 7 days a week
1-800-488-1222

For information on purchasing a Sears Maintenance Agreement or to inquire about an existing Agreement
Call 9 am - 5 pm, Monday-Saturday
1-800-827-6655

SEARS
REPAIR SERVICES
America's Repair Specialists

4675-230-70
OWNERS MANUAL

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