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› DELTA 15-inch Scroll Saw Model 40-150 Instruction Manual

DELTA 40-150

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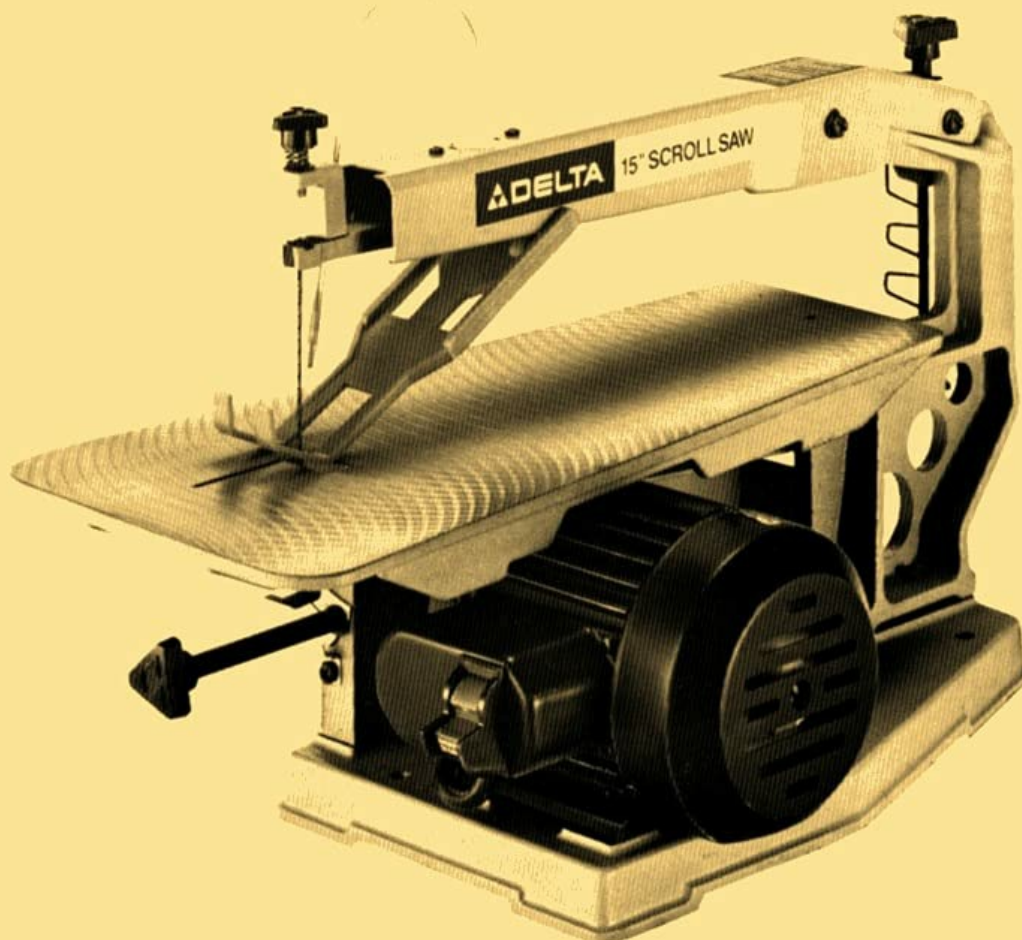
Owner Instructions & Parts Manual

INTRODUCTION

This manual provides detailed instructions for the safe operation, maintenance, and parts identification of your DELTA 15-inch Scroll Saw, Model 40-150. Please read this manual thoroughly before operating the saw to ensure proper use and to prevent injury or damage.

15" SCROLL SAW

INSTRUCTION MANUAL



DATED 3-1-91



1331

Figure 1: DELTA 15-inch Scroll Saw Model 40-150. This image displays the overall design of the scroll saw, including its motor, table, and blade assembly.

SAFETY RULES FOR ALL TOOLS

Always follow basic safety precautions to reduce the risk of fire, electric shock, and personal injury.

- Keep work area clean and well lit. Cluttered and dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.
- Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.
- Do not overreach. Keep proper footing and balance at all times.
- Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.
- Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.

ADDITIONAL SAFETY RULES FOR SCROLL SAWS

- Always wear eye protection.
- Never place hands or fingers in the path of the saw blade.
- Ensure the work piece is firmly supported on the table.
- Do not force the work piece into the blade; allow the blade to cut at its own rate.
- Always disconnect power before changing blades or making adjustments.
- Keep the work area clear of scraps and debris.

SETUP AND ASSEMBLY

Unpacking and Cleaning

Carefully remove the scroll saw from its packaging. Inspect all components for any shipping damage. Clean any protective oils or dust from the machine surfaces using a soft cloth. Ensure all packing materials are removed from moving parts.

Fastening Scroll Saw to Supporting Surface

For stable and safe operation, the scroll saw must be securely fastened to a workbench or a sturdy stand. Use appropriate bolts and washers through the mounting holes in the saw's base. Ensure the surface is level and capable of supporting the saw's weight and vibration during operation.

Assembling Table Lock Knob

Locate the table lock knob and thread it into its designated position on the saw. This knob is used to secure the saw table at the desired angle for cutting.

Assembling Screw, Spring and Washers to Blade Holder Clamp

Carefully assemble the screw, spring, and washers onto the blade holder clamp according to the diagram in the parts section. This assembly is crucial for properly securing the saw blade.

Assembling Chip Blower Assembly

Attach the chip blower assembly to its designated port. The chip blower directs air towards the cutting line, keeping it clear of

sawdust for better visibility.

Connecting Scroll Saw to Power Source

Before connecting, ensure the power switch is in the "OFF" position. Plug the saw into a grounded electrical outlet of the correct voltage as specified on the saw's nameplate. Do not use extension cords unless absolutely necessary, and if so, ensure they are rated for the tool's power requirements.

OPERATION

Starting and Stopping Saw

To start the saw, push the switch to the "ON" position. To stop, push the switch to the "OFF" position. Always allow the blade to come to a complete stop before leaving the machine.

Locking Switch in the 'OFF' Position

For safety, the power switch can be locked in the "OFF" position to prevent unauthorized use. Consult the switch mechanism for specific locking instructions, often involving a padlock or key.

Tilting the Table

The saw table can be tilted for angled cuts. Loosen the table lock knob, adjust the table to the desired angle using the angle scale, and then firmly tighten the lock knob to secure the table.

Leveling the Table

Periodically check that the table is level (0-degree tilt) when the angle indicator shows zero. Adjustments can typically be made via a set screw or stop bolt if the table is not perfectly perpendicular to the blade at the zero setting.

Adjusting Blade Tension

Proper blade tension is critical for accurate cuts and blade longevity. Adjust the tension knob until the blade is taut but not overly stretched. A common test is to pluck the blade; it should produce a clear, low tone.

Installing and Replacing Blades

Always disconnect power before changing blades.

Removing and Installing Pin-Type Blades

1. Loosen the blade tension.
2. Remove the blade from the upper and lower blade holders by disengaging the pins.
3. Insert the new pin-type blade into the lower blade holder, ensuring the pins are seated correctly.
4. Pull the upper arm down slightly and insert the top pin into the upper blade holder.
5. Re-apply blade tension.

Installing and Replacing Flat-End Blades

1. Loosen the blade tension.
2. Loosen the set screws on both upper and lower blade clamps.
3. Remove the old blade.
4. Insert the new flat-end blade into the lower clamp, ensuring it is fully seated and perpendicular to the table. Tighten the set screw.
5. Insert the top of the blade into the upper clamp, ensuring it is straight. Tighten the set screw.
6. Re-apply blade tension.

Inside Cutting

Inside cuts require drilling a pilot hole in the workpiece, then feeding the blade through the hole before attaching it to the upper blade holder.

Inside Cutting With Pin-Type Blades

1. Drill a pilot hole in the waste area of your workpiece.
2. Remove the blade from the upper holder.
3. Feed the blade through the pilot hole.
4. Re-attach the blade to the upper holder and apply tension.
5. Perform the cut, then reverse the process to remove the blade.

Inside Cutting With Flat-End Blades

1. Drill a pilot hole in the waste area of your workpiece.
2. Loosen the upper blade clamp set screw and remove the blade.
3. Feed the blade through the pilot hole.
4. Re-insert the blade into the upper clamp, ensuring it is straight, and tighten the set screw.
5. Apply blade tension.
6. Perform the cut, then reverse the process to remove the blade.

MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your scroll saw.

- **Lubrication:** Refer to the lubrication instructions in the original manual for specific points and frequency. Generally, moving parts and pivot points require periodic lubrication to reduce friction and wear.
- **Cleaning:** After each use, clear sawdust and debris from the table, blade area, and motor vents. A shop vacuum or compressed air can be used.
- **Blade Guide Inspection:** Regularly inspect the blade guide and hold-down foot for wear. Replace if worn to ensure accurate cuts and proper blade support.
- **Motor Maintenance:** Keep motor vents clear to prevent overheating. Do not attempt to service the motor beyond routine cleaning.

TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your scroll saw.

Problem	Possible Cause	Solution
Saw does not start	No power; switch in OFF position; faulty power cord.	Check power connection; ensure switch is ON; inspect power cord for damage.
Blade breaks frequently	Incorrect blade tension; forcing workpiece; wrong blade type for material.	Adjust blade tension; allow blade to cut at its own rate; use appropriate blade.
Inaccurate cuts	Loose blade; table not level; worn blade guide.	Check blade tension; level table; inspect and replace blade guide if worn.
Excessive vibration	Saw not securely mounted; unbalanced motor.	Ensure saw is firmly bolted to surface; contact service for motor issues.

SPECIFICATIONS

- **Model:** DELTA 40-150
- **Saw Type:** 15-inch Scroll Saw
- **Power Source:** (Typically 120V AC, specific details would be on the machine's nameplate)
- **Blade Type:** Accepts both pin-type and flat-end blades
- **Table Tilt:** (Specific degrees, e.g., 0-45 degrees)
- **Throat Depth:** 15 inches
- **Number of Pages in Manual:** 18

Note: For detailed electrical specifications and precise dimensions, refer to the nameplate on your specific machine.

PARTS, SERVICE, AND WARRANTY ASSISTANCE

For assistance with parts, service, or warranty claims, please contact the manufacturer or an authorized service center. This manual contains explosive view diagrams of all the parts with parts list to aid in identifying necessary components for repair or replacement.

Warranty Information

The DELTA 15-inch Scroll Saw Model 40-150 is covered by a manufacturer's warranty. Details regarding the warranty period, coverage, and conditions are typically provided with the original purchase documentation. Please retain your proof of purchase for warranty claims.

Authorized Service Centers

A list of authorized service centers can usually be found on the manufacturer's official website or by contacting their customer support. Using authorized service centers ensures that repairs are performed by qualified technicians using genuine parts. For further assistance, you may refer to the contact information provided by Ozark Tool Manuals & Books, the publisher of this reproduction manual, or search for official DELTA support channels.

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Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question