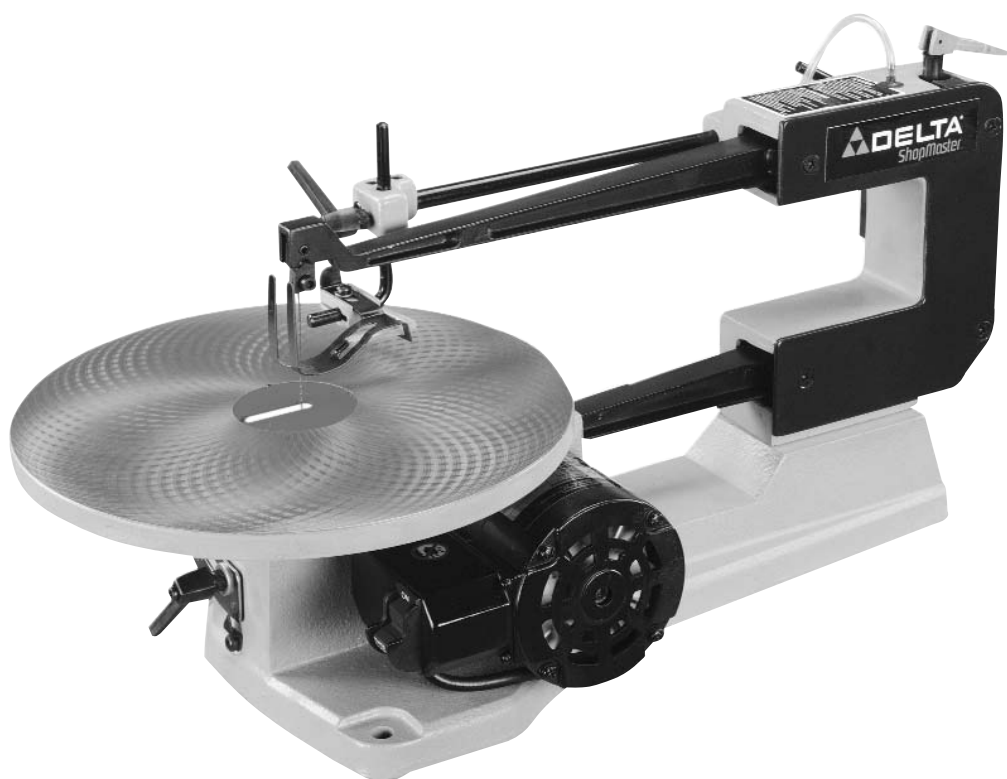


# 16" Scroll Saw

(Model SS200)



PART NO. 905591 - 05-31-02  
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 **DELTA**<sup>®</sup> *ShopMaster*<sup>™</sup>

To learn more about DELTA MACHINERY  
visit our website at: [www.deltamachinery.com](http://www.deltamachinery.com).

For Parts, Service, Warranty or other Assistance,

please call **1-800-223-7278** (In Canada call **1-800-463-3582**).

**ESPAÑOL: PÁGINA 15**

# GENERAL SAFETY RULES

Woodworking can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. Safety equipment such as guards, push sticks, hold-downs, featherboards, goggles, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. Always use common sense and exercise caution in the workshop. If a procedure feels dangerous, don't try it. Figure out an alternative procedure that feels safer. **REMEMBER:** Your personal safety is your responsibility.

This machine was designed for certain applications only. Delta Machinery strongly recommends that this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, **DO NOT** use the machine until you have first contacted Delta to determine if it can or should be performed on the product.

**Technical Service Manager  
Delta Machinery  
4825 Highway 45 North  
Jackson, TN 38305**

(IN CANADA: 505 SOUTHGATE DRIVE, GUELPH, ONTARIO N1H 6M7)



## **WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY**

1. **FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE TOOL.** Learn the tool's application and limitations as well as the specific hazards peculiar to it.

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

3. **ALWAYS WEAR EYE PROTECTION.** Wear safety glasses. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses. Also use face or dust mask if cutting operation is dusty. These safety glasses must conform to ANSI Z87.1 requirements. **NOTE:** Approved glasses have Z87 printed or stamped on them.

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

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

6. **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.

7. **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.

8. **MAKE WORKSHOP CHILDPROOF** – with padlocks, master switches, or by removing starter keys.

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

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

11. **WEAR PROPER APPAREL.** No loose clothing, gloves, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.

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

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

14. **MAINTAIN TOOLS IN TOP CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

15. **DISCONNECT TOOLS** before servicing and when changing accessories such as blades, bits, cutters, etc.

16. **USE RECOMMENDED ACCESSORIES.** The use of accessories and attachments not recommended by Delta may cause hazards or risk of injury to persons.

17. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in "OFF" position before plugging in power cord. In the event of a power failure, move switch to the "OFF" position.

18. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.

19. **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, 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.


20. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.

21. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.

22. **STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE WHEN OPERATING A POWER TOOL. DO NOT USE TOOL WHILE TIRED OR UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR MEDICATION.** A moment of inattention while operating power tools may result in serious personal injury.

23. **MAKE SURE TOOL IS DISCONNECTED FROM POWER SUPPLY** while motor is being mounted, connected or reconnected.

24. **THE DUST GENERATED** by certain woods and wood products can be injurious to your health. Always operate machinery in well ventilated areas and provide for proper dust removal. Use wood dust collection systems whenever possible.

25.  **WARNING: SOME DUST CREATED BY POWER SANDING, SAWING, GRINDING, DRILLING, AND OTHER CONSTRUCTION ACTIVITIES** contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
  - crystalline silica from bricks and cement and other masonry products, and
  - arsenic and chromium from chemically-treated lumber.
- Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

**SAVE THESE INSTRUCTIONS.**

**Refer to them often and use them to instruct others.**

# ADDITIONAL SAFETY RULES FOR SCROLL SAWS



**WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY.**

1. **DO NOT OPERATE THIS MACHINE** until it is **assembled** and **installed** according to the instructions.
2. **OBTAIN ADVICE FROM YOUR SUPERVISOR, instructor, or another qualified person** if you are not familiar with the operation of this machine.
3. **FOLLOW ALL WIRING CODES** and recommended electrical connections.
4. **YOUR SCROLL SAW MUST** be securely fastened to a stand or workbench. If there is any tendency for the stand or workbench to move during operation, the stand or workbench **MUST** be fastened to the floor.
5. **THIS SCROLL SAW** is intended for indoor use only.
6. **MAKE SURE** blade is properly tensioned before operating saw.
7. **TO AVOID** blade breakage **ALWAYS** adjust blade tension correctly.
8. **MAKE SURE** the blade teeth point downward toward the table.
9. **NEVER** turn the saw **"ON"** before clearing the table of all objects (tools, scraps of wood, etc.).
10. **DO NOT** cut material that is too small to be safely supported.
11. **AVOID** awkward hand positions where a sudden slip could cause a hand to move into the blade.
12. **ALWAYS** keep hands and fingers away from blade.
13. **ALWAYS** adjust holddown foot for each new operation.
14. **DO NOT USE** dull or bent blades.
15. **DO NOT** attempt to saw material that does not have a flat surface, unless a suitable support is used.
16. **MAKE** "relief" cuts before cutting long curves.
17. **NEVER** attempt to cut a curve that is too tight for the blade being used.
18. **WHEN** backing a blade out of a workpiece, the blade may bind in the saw kerf. This is usually caused by sawdust in the kerf. If this happens, turn **"OFF"** the switch and remove plug from power source outlet. Wedge open the kerf and back blade out of the workpiece.
19. **THE USE** of attachments and accessories not recommended by Delta may result in the risk of injuries.
20. **ALWAYS** hold the work firmly against the table.
21. **DO NOT** feed the material too fast while cutting. Only feed the material fast enough so that the blade will cut.
22. **NEVER** start the Scroll Saw with the stock pressed against the blade.
23. **WHEN** cutting a large workpiece **MAKE SURE** the material is supported at table height.
24. **USE CAUTION** when cutting material which is irregular in cross section which could pinch the blade before the cut is completed. A piece of moulding for example must lay flat on the table and not be permitted to rock while being cut.
25. **USE CAUTION** when cutting round material such as dowel rods or tubing. They have a tendency to roll while being cut causing the blade to "bite." Use a V-block to control the piece.
26. **ALWAYS** release blade tension before removing the blade from the upper or lower blade holders.
27. **MAKE CERTAIN** table tilting lock is tightened before starting the machine.
28. **NEVER** reach under the table while the machine is running.
29. **NEVER** perform layout, assembly or set-up work on the table while the saw is operating.
30. **ALWAYS STOP** the saw before removing scrap pieces from the table.
31. **TURN THE MACHINE "OFF" AND DISCONNECT THE MACHINE** from the power source before installing or removing accessories, before adjusting or changing set-ups, or when making repairs.
32. **TURN THE MACHINE "OFF"**, disconnect the machine from the power source, and clean the table/work area before leaving the machine. **LOCK THE SWITCH IN THE "OFF" POSITION** to prevent unauthorized use.
33. **ADDITIONAL INFORMATION** regarding the safe and proper operation of this tool is available from the Power Tool Institute, 1300 Summer Avenue, Cleveland, OH 44115-2851. Information is also available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201. Please refer to the American National Standards Institute ANSI 01.1 Safety Requirements for Woodworking Machines and the U.S. Department of Labor OSHA 1910.213 Regulations.

**SAVE THESE INSTRUCTIONS.  
Refer to them often  
and use them to instruct others.**

# POWER CONNECTIONS

A separate electrical circuit should be used for your machines. This circuit should not be less than #12 wire and should be protected with a 20 Amp time lag fuse. If an extension cord is used, use only 3-wire extension cords which have 3-prong grounding type plugs and matching receptacle which will accept the machine's plug. Before connecting the motor to the power line, make sure the switch is in the "OFF" position and be sure that the electric current is of the same characteristics as indicated on the machine. All line connections should make good contact. Running on low voltage will damage the motor.

 **WARNING: DO NOT EXPOSE THE MACHINE TO RAIN OR OPERATE THE MACHINE IN DAMP LOCATIONS.**

## MOTOR SPECIFICATIONS

Your machine is wired for 120 volt, 60 HZ alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position.

## GROUNDING INSTRUCTIONS

 **WARNING: THIS MACHINE MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.**

1. All grounded, cord-connected machines:

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 machine 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 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 machine is properly grounded.


Use only 3-wire extension cords that have 3-prong grounding type plugs and matching 3-conductor receptacles that accept the machine's plug, as shown in Fig. A.

Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected machines intended for use on a supply circuit having a nominal rating less than 150 volts:

If the machine is intended for use on a circuit that has an outlet that looks like the one illustrated in Fig. A, the machine will have a grounding plug that looks like the plug illustrated in Fig. A. A temporary adapter, which looks like the adapter illustrated in Fig. B, may be used to connect this plug to a matching 2-conductor receptacle as shown in Fig. 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. Whenever the adapter is used, it must be held in place with a metal screw.

**NOTE: In Canada, the use of a temporary adapter is not permitted by the Canadian Electric Code.**

 **WARNING: IN ALL CASES, MAKE CERTAIN THE RECEPTACLE IN QUESTION IS PROPERLY GROUNDED. IF YOU ARE NOT SURE HAVE A QUALIFIED ELECTRICIAN CHECK THE RECEPTACLE.**

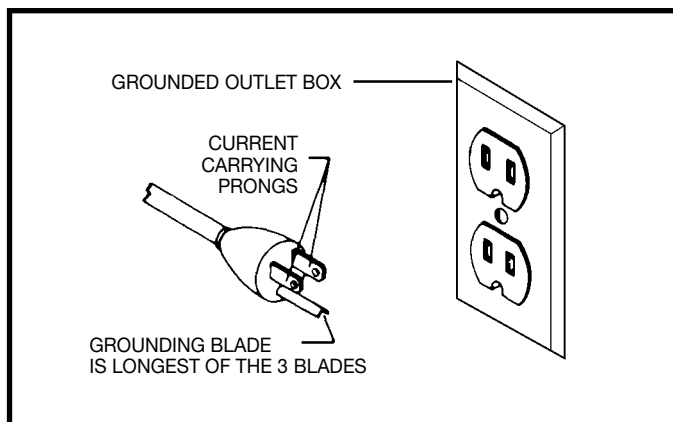


Fig. A

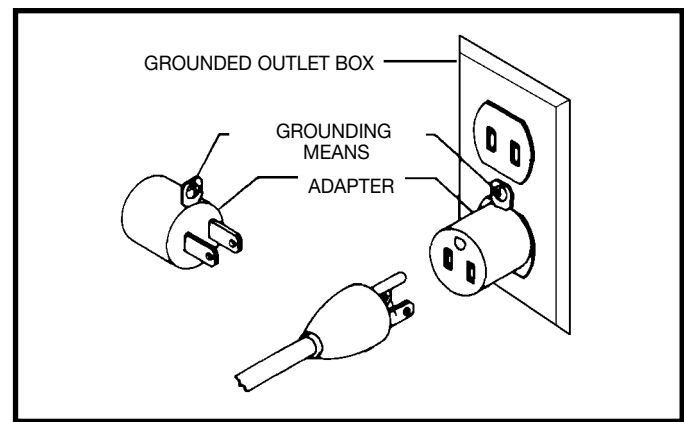


Fig. B

# EXTENSION CORDS

Use proper extension cords. Make sure your extension cord is in good condition and is a 3-wire extension cord which has a 3-prong grounding type plug and matching receptacle which will accept the machine's plug. When using an extension cord, be sure to use one heavy enough to carry the current of the machine. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. Fig. D, shows the correct gauge to use depending on the cord length. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

MINIMUM GAUGE EXTENSION CORD			
RECOMMENDED SIZES FOR USE WITH STATIONARY ELECTRIC MACHINES			
Ampere Rating	Volts	Total Length of Cord in Feet	Gauge of Extension Cord
0-6	120	up to 25	18 AWG
0-6	120	25-50	16 AWG
0-6	120	50-100	16 AWG
0-6	120	100-150	14 AWG
6-10	120	up to 25	18 AWG
6-10	120	25-50	16 AWG
6-10	120	50-100	14 AWG
6-10	120	100-150	12 AWG
10-12	120	up to 25	16 AWG
10-12	120	25-50	16 AWG
10-12	120	50-100	14 AWG
10-12	120	100-150	12 AWG
12-16	120	up to 25	14 AWG
12-16	120	25-50	12 AWG
12-16	120	GREATER THAN 50 FEET NOT RECOMMENDED	

Fig. D

# OPERATING INSTRUCTIONS

## FOREWORD

Delta ShopMaster Model SS200 is a 16" Scroll Saw. The Model SS200 comes with a powerful 1.8 amp., induction motor for long lasting, and smooth performance.

## UNPACKING AND CLEANING

Carefully unpack the machine and all loose items from the shipping container(s). Remove the protective coating from all unpainted surfaces. This coating may be removed with a soft cloth moistened with kerosene (do not use acetone, gasoline or lacquer thinner for this purpose). After cleaning, cover the unpainted surfaces with a good quality household floor paste wax.

**NOTICE: THE MANUAL COVER PHOTO ILLUSTRATES THE CURRENT PRODUCTION MODEL. ALL OTHER ILLUSTRATIONS ARE REPRESENTATIVE ONLY AND MAY NOT DEPICT THE ACTUAL COLOR, LABELING OR ACCESSORIES AND MAY BE INTENDED TO ILLUSTRATE TECHNIQUE ONLY.**

## SCROLL SAW PARTS

- A - Scroll Saw
- B - Table
- C - Table Insert
- D - Holddown Assembly
- E - Quickset Wrench
- F - Table Lock Handle
- G - 6mm Wrench
- H - 4mm Wrench
- I - Pivot Bolt
- J - M6.4 Flat Washers (2)
- K - M6 Hex Nut

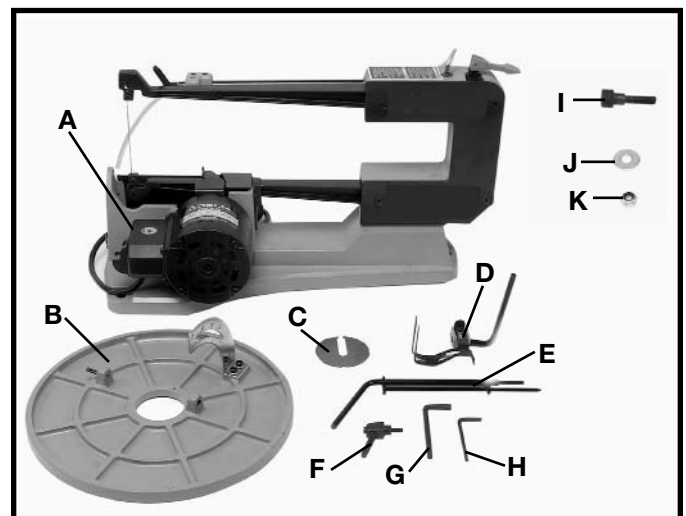


Fig. 4



# ASSEMBLY

**⚠️ WARNING: FOR YOUR OWN SAFETY, DO NOT CONNECT THE MACHINE TO THE POWER SOURCE UNTIL THE MACHINE IS COMPLETELY ASSEMBLED AND YOU READ AND UNDERSTAND THE ENTIRE INSTRUCTION MANUAL.**

1. Remove the blade from the upper blade holder. (See the section “**CHANGING BLADES**”, begin with instruction #3).
2. Loosen lock handle (K) Fig. 5, and insert long end of holddown assembly (D) up through hole in bracket (L). Then tighten lock handle (K). Connect end of air hose (M) to air nozzle (N) as shown.

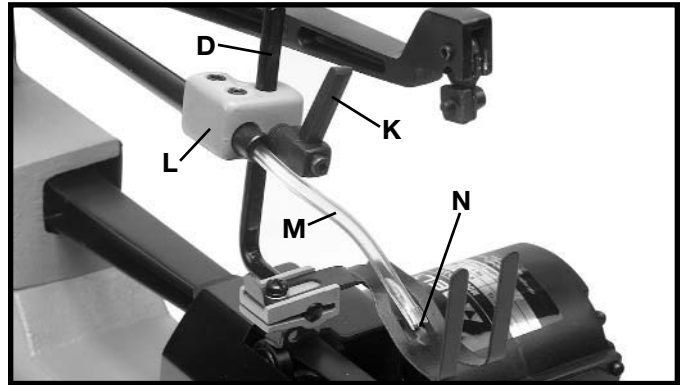


Fig. 5

3. Position table (B) Fig. 6, on the machine, as shown, making sure pin (O) in rear table casting is engaged with hole in base casting. Insert pivot bolt (E) through hole in table casting (P) and thread into base (Q) using the 6mm wrench. Thread M6 hex nut on end of pivot bolt (E). Make sure the tilt scale (R) Fig. 7, is positioned inside pointer (S) as shown.

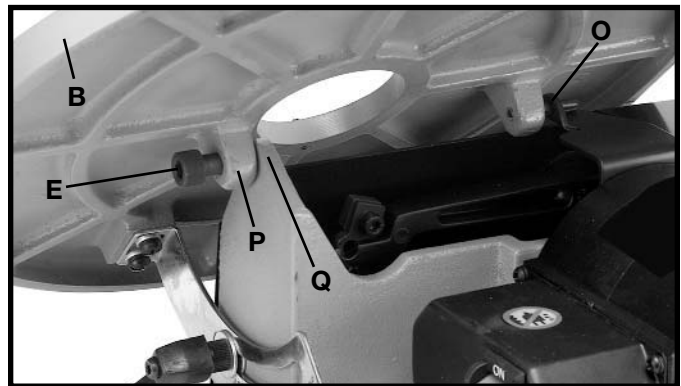


Fig. 6

4. Position M6.4 flat washers (J) Fig. 7, on inside and outside of tilt scale (R) and thread end of table lock handle (I) into hole (T).

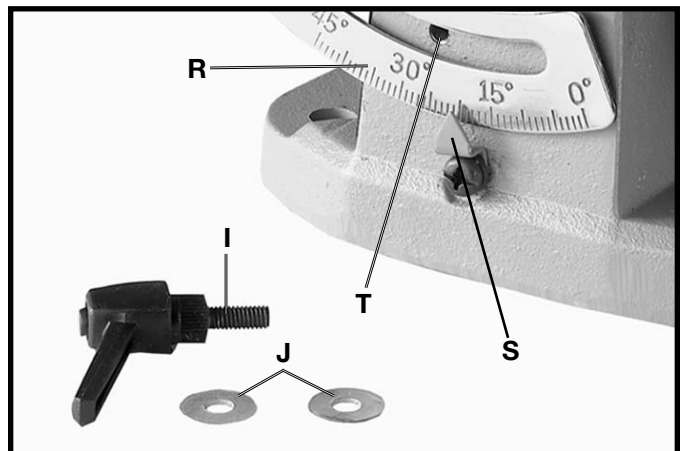


Fig. 7

5. Figure 8 illustrates table lock handle (I) assembled to machine.

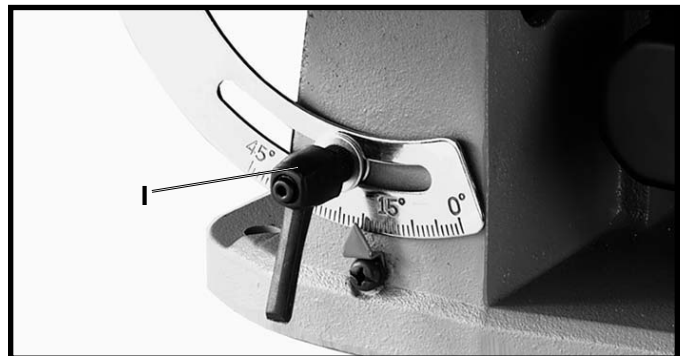


Fig. 8

6. Re-attach blade to upper blade holder. (See the section “**CHANGING BLADES**”, begin with instruction #6).

7. Assemble table insert (C) Fig. 9, in table as shown. **NOTE:** Opening in table insert (C) should be positioned toward the front for normal work with the table in the level position and should be positioned toward the right when tilting the table.

## FASTENING SCROLL SAW TO SUPPORTING SURFACE

This scroll saw **MUST** be securely fastened to a stand or workbench using the three holes, two of which are shown at (A) Fig. 10. The third hole is at the rear of the machine.

An alternate method of securing the scroll saw to a supporting surface is to fasten the scroll saw to a mounting board. Then securely clamp the mounting board to a stand or workbench using two or more C-clamps. **NOTE:** For proper stability, the holes in the mounting board must be countersunk at the bottom so that the fastener heads are flush with the bottom surface of the mounting board.

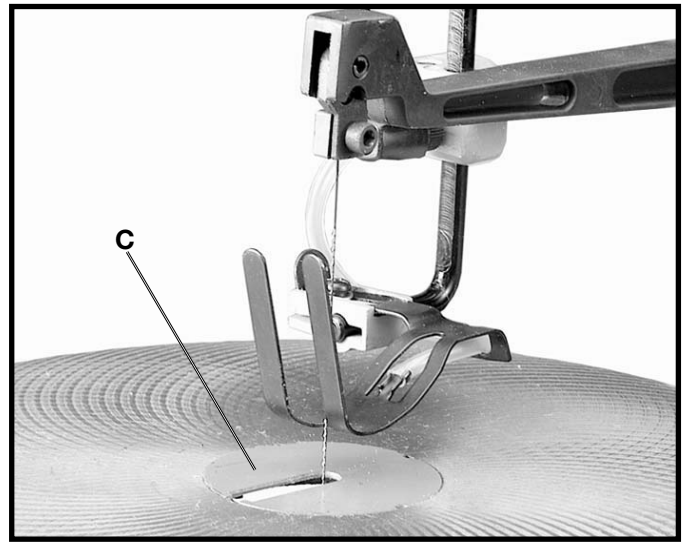


Fig. 9

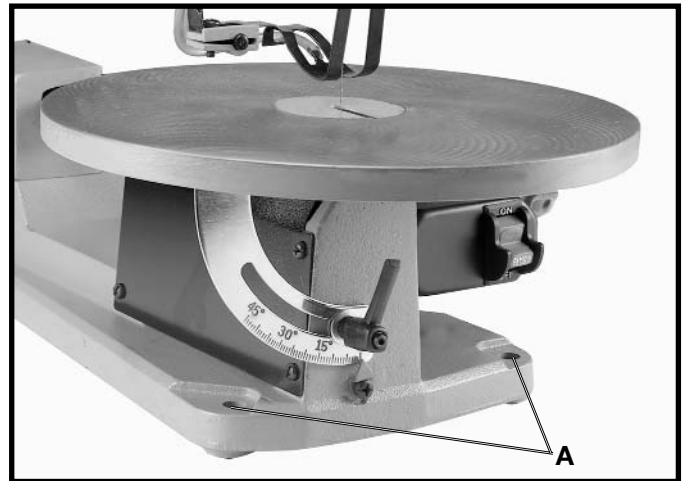


Fig. 10

## OPERATING CONTROLS AND ADJUSTMENTS

### ON-OFF SWITCH

The on-off switch (A) Fig. 11, is located on the motor directly under the right hand side of the table. To turn the saw “ON”, move the switch (A) up to the “ON” position. To turn the saw “OFF”, move the switch down to the “OFF” position.

### LOCKING SWITCH IN THE “OFF” POSITION

**IMPORTANT:** When the machine is not in use, the switch should be locked in the OFF position to prevent unauthorized use. This can be done by grasping the switch toggle (B) and pulling it out of the switch, as shown in Fig. 12. With the switch toggle (B) removed, the switch will not operate. However, should the switch toggle be removed while the saw is running, the switch can be turned “OFF” once, but cannot be restarted without inserting the switch toggle (B).



Fig. 11

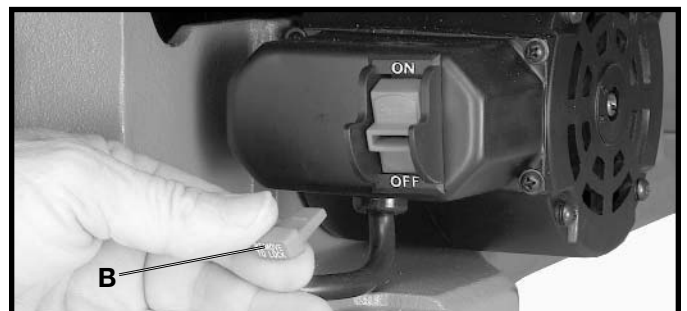


Fig. 12

# WRENCH AND BLADE STORAGE

A convenient wrench and blade holder (A) Fig. 13, is supplied on the left side of the rear casting, which allows you to store the hex wrenches (C), quickset blade changing wrench (B) and extra scroll saw blades when not in use.

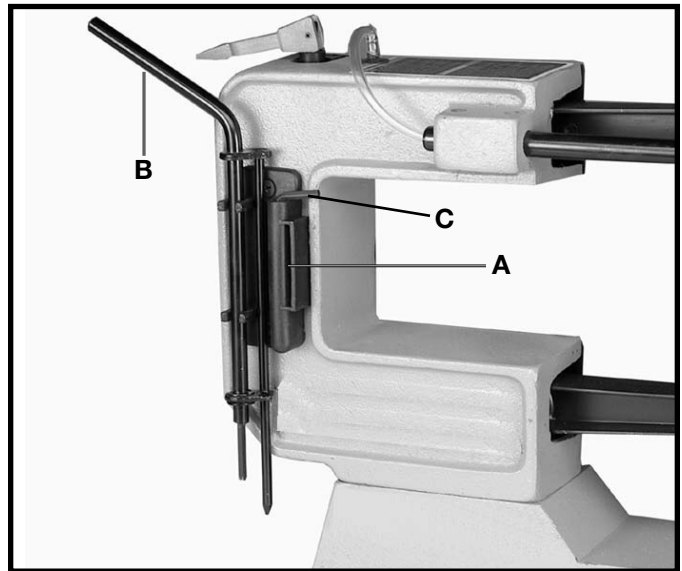


Fig. 13

# CHANGING BLADES

1. **DISCONNECT MACHINE FROM POWER SOURCE.**
2. Remove table insert.
3. Position blade tension lever (A) Fig. 19, in the vertical position to release blade tension.
4. Insert long end (A) Fig. 14, of quickset blade changing wrench into hole (B) in upper blade holder. This will align wrench (C) with blade holder screw (D).
5. Fig. 15, illustrates the quickset blade changing wrench (E) engaged with the upper blade holder assembly. Turn wrench counterclockwise to loosen screw (D) and remove blade (F) from upper blade holder as shown.

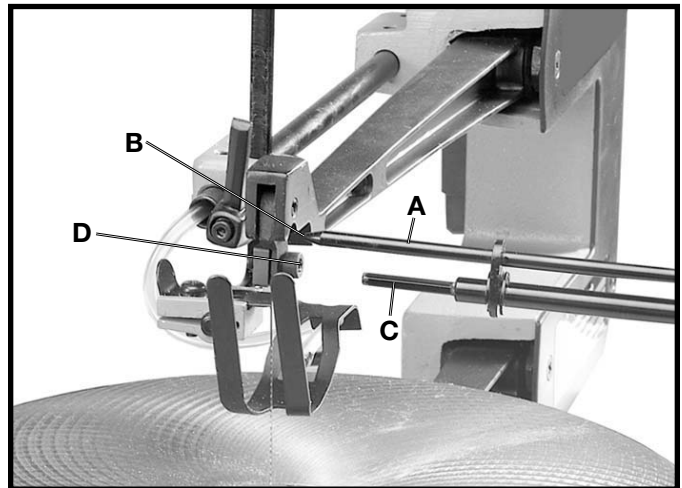


Fig. 14

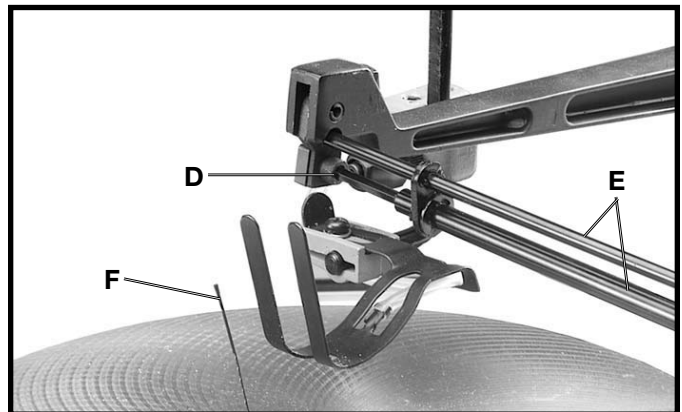


Fig. 15



6. Insert long end (A) Fig. 16, of quickset blade changing wrench into hole (G) in lower blade holder. This will help align wrench (C) with blade holder screw (H).

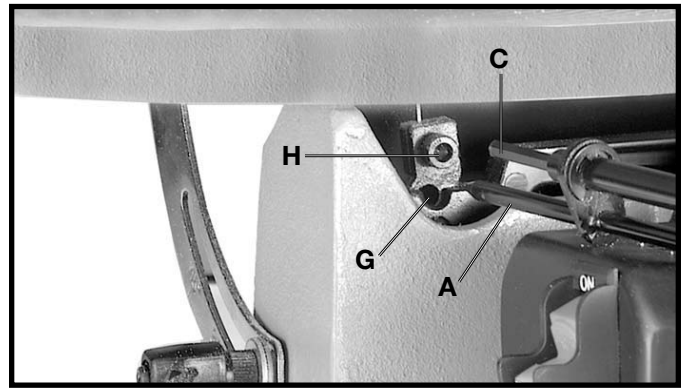


Fig. 16

7. Turn wrench (E) Fig. 17, counterclockwise to loosen screw (H) and remove blade (F) from lower blade holder.

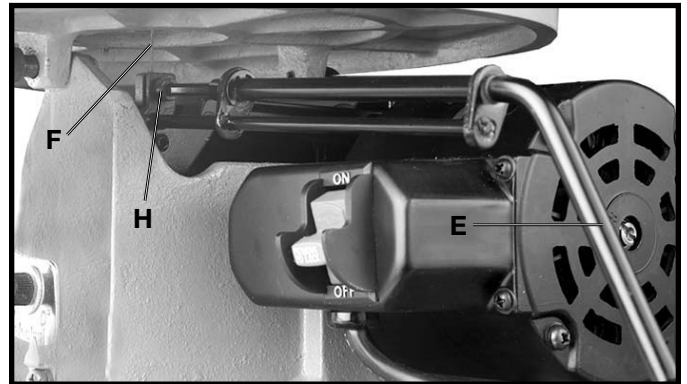


Fig. 17

8. Insert new blade into the lower and upper blade holders in the same manner, making certain the blade teeth are pointing down toward the table. Tighten screws in both the upper and lower blade holders. Replace table insert.

9. Apply blade tension by referring to the section “ADJUSTING BLADE TENSION”.

## ADJUSTING BLADE TENSION

Tension is applied to the blade when the blade tension lever (A) Fig. 18, has been adjusted and is in the horizontal position as shown. When the blade tension lever (A) is moved to the vertical position, as shown in Fig. 19, blade tension is released.



Fig. 18

To adjust blade tension, position lever (A) in the vertical position, as shown in Fig. 19. To increase tension, turn lever (A) clockwise and to decrease tension turn lever (A) counterclockwise. When adjusting tension, turn lever one-quarter of a turn at a time. **NOTE:** It is necessary to adjust the blade tension only when the blade is removed from both the upper and lower blade holders and a new or different type of blade is assembled to the holders. It is not necessary to adjust blade tension when the blade is removed and replaced in only the upper blade holder as in performing inside cutting operations. After desired tension is obtained, position tension lever (A) in the horizontal position, as shown in Fig. 18.



Fig. 19

Adjusting the blade for proper tension is usually accomplished by trial and error. One method is to pull back on the blade tension lever (A) Fig. 19, the blade should start to have tension (resistance) when the blade tension lever is half way between open Fig. 19, and closed Fig. 18. Finer blades require more tensioning while thicker blades require less tension.

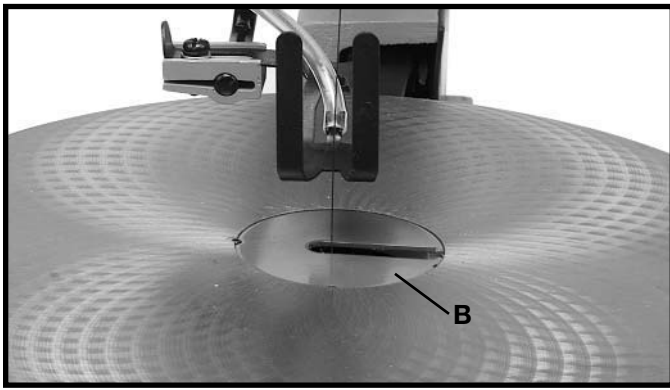


Fig. 20A

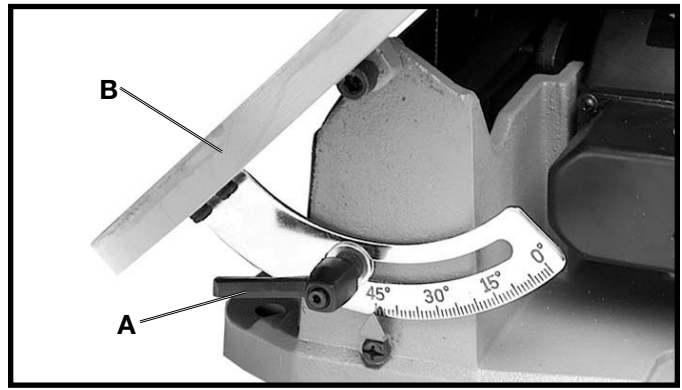


Fig. 20

## TILTING THE TABLE

The table (A) Fig. 20, on your scroll saw can be tilted up to 45 degrees to the left for bevel cutting operations.

1. Turn the table insert 90 degrees to the right. **NOTE: ROTATE THE TABLE INSERT (B) FIG. 20A, TO ALLOW YOU TO TILT THE TABLE WITHOUT BENDING OR BREAKING THE BLADE.**

2. Loosen table lock handle (A) Fig. 20. Tilt table (B) Fig. 20, to the desired angle and tighten lock handle (A). **NOTE:** Table lock handle (A) Fig. 20, is spring-loaded and can be repositioned by pulling outward on handle (A) and repositioning hub of handle on the nut located underneath the hub.

3. When bevel cutting, as shown in Fig. 21, the holddown (C) can be adjusted to lay flat on the stock. If the workpiece is too thick causing the stock to contact the holddown arm (D), the complete holddown assembly can be removed, since thick stock is heavy enough to resist lifting off the table during the blade's up stroke.

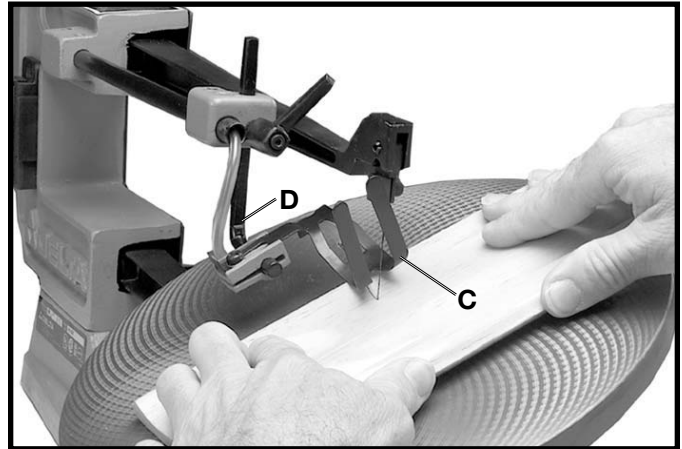


Fig. 21

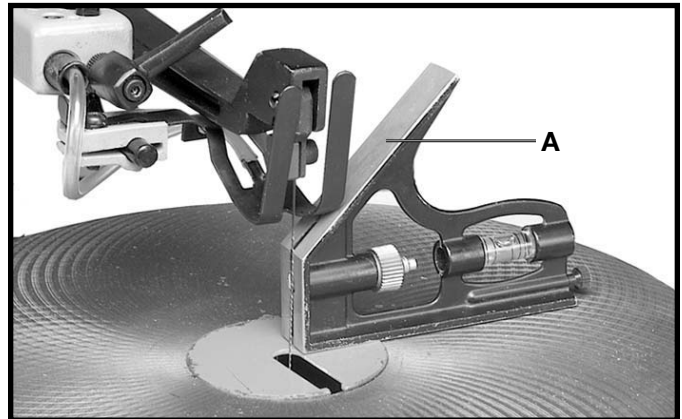


Fig. 22

## ADJUSTING THE TABLE

1. Loosen the table locking handle, and tilt the table all the way to the right.

2. Place one end of a square (A) Fig. 22, on the table and the other end against the blade, as shown. Check to see if the table is 90 degrees to the blade.

3. If the table is not at 90 degrees to the blade, loosen table lock handle (B) Fig. 23, and adjust the table until it is 90 degrees to the blade. Then loosen screw (C) and adjust pointer (D) until it points to the 0 degree mark on the scale (E).

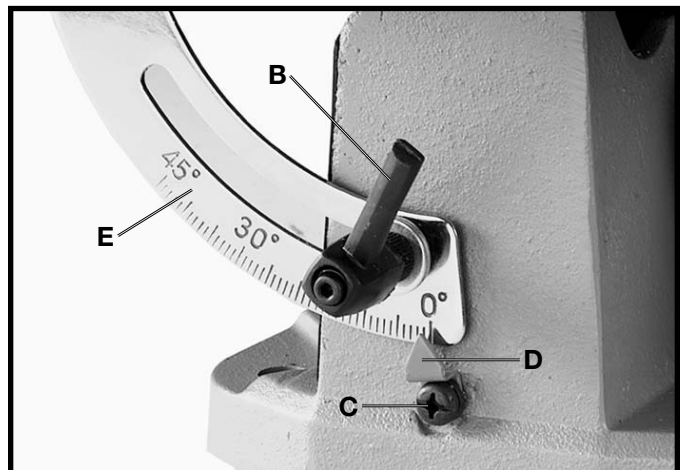


Fig. 23

# ADJUSTING HOLDDOWN

The bottom of the holddown (A) Fig. 24, should be adjusted so it contacts the top surface of the work being cut by loosening lock handle (B) and moving holddown assembly (C) up or down. Then tighten lock handle (B). **NOTE:** Lock handle (B) is spring-loaded and can be repositioned by pulling out handle and repositioning on the nut located directly underneath the hub.

# DUST BLOWER

A dust blower (D) Fig. 24, is supplied with your saw to direct air to the most effective point on the cutting line. Make sure end of hose (D) is connected to the holddown (A) as shown.

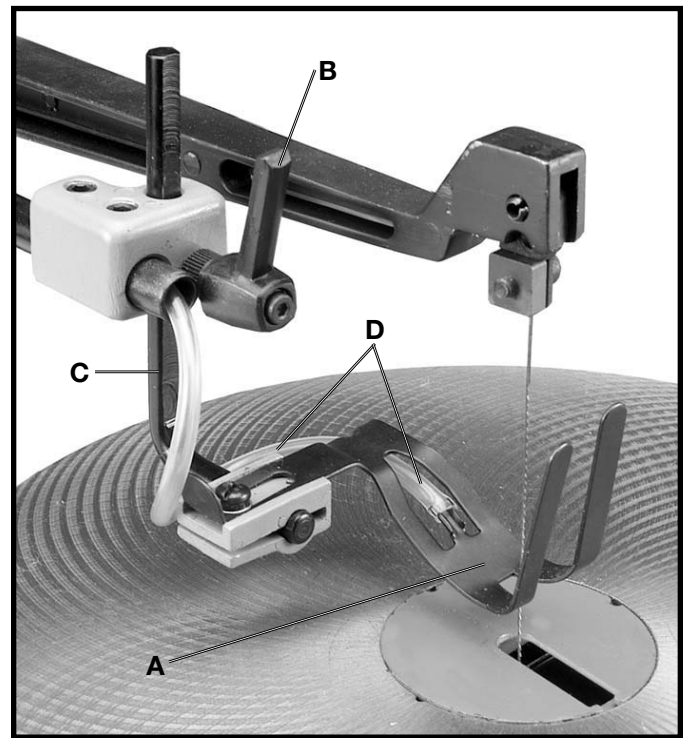


Fig. 24

# OPERATIONS FOLLOWING A LINE

With your scroll saw you should be able to perform straight or curved cuts with ease. Most beginners will experience blade wandering; however, they eventually learn to control it as they become more familiar with the machine. Use scrap material to practice cuts before starting a project. This enables you to develop your own style of cutting and you will discover what you can do with your saw.

Always hold the work firmly against the table and do not feed the workpiece too fast while cutting. Feed the workpiece only fast enough so that the blade will cut. Scroll saws cut faster across the grain than they do with the grain. Allow for this tendency when cutting patterns that shift rather quickly from with-the-grain cuts to cross-grain cuts.

Make "relief" cuts before cutting long curves and never attempt to cut a curve that is too tight for the blade being used.

# INSIDE CUTTING

Inside cutting takes place when the blade is threaded through a hole in the workpiece. With your Delta 16" Scroll Saw, you can perform this operation quickly and easily as follows:

Loosen lock handle (A) Fig. 25, and raise the holddown (B). Release blade tension by moving the blade tension lever to the vertical position as previously explained. Loosen upper blade holder screw (C) as previously explained. This will release the blade and allow you to thread the blade through the next hole in the pattern. Replace blade in upper blade holder and move blade tension lever to the horizontal position to re-apply blade tension. Lower holddown and you are ready to make the next cut.

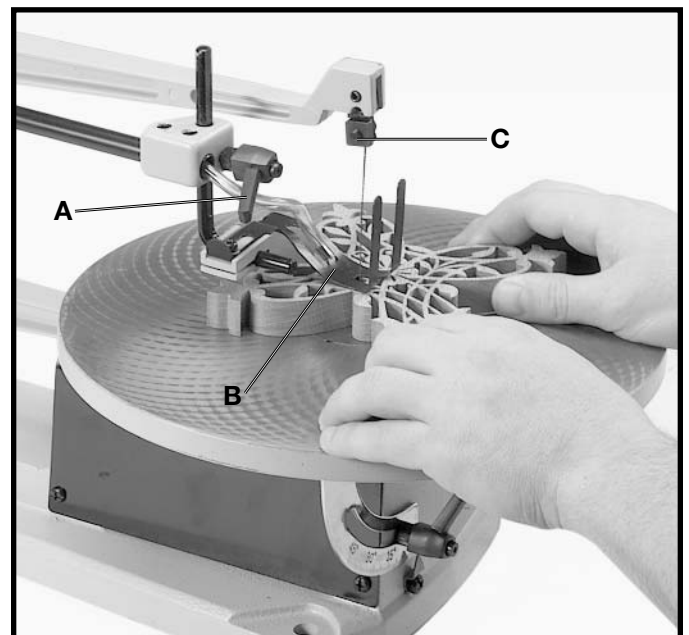


Fig. 25



# MAINTENANCE

## LUBRICATION

Perform maintenance below after each 20 hours of use.

1. **DISCONNECT MACHINE FROM POWER SOURCE.**
2. Remove the four screws (A) Fig. 26, and side panel (B).
3. Release blade tension by moving blade tension lever to the vertical position.
4. Remove the two pivot bolts and wave washers (C) Fig. 27.
5. Fig. 28 illustrates one of the pivot bolts and wave washers (C) removed. Thoroughly clean grease from shafts of both pivot bolts and lubricate shafts with a few drops of light machine oil.
6. Re-assemble the two pivot bolts and replace side panel. Re-apply tension to the blade.

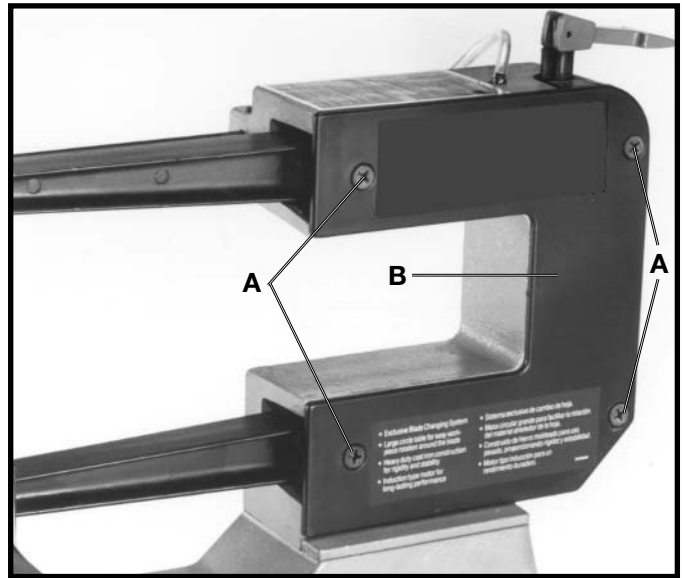


Fig. 26

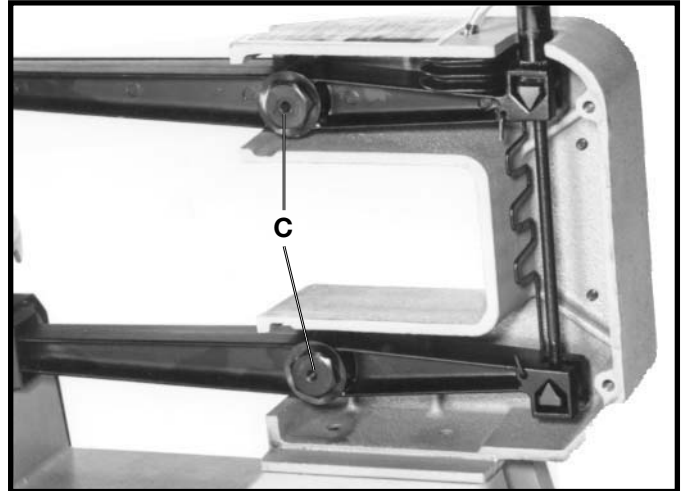


Fig. 27

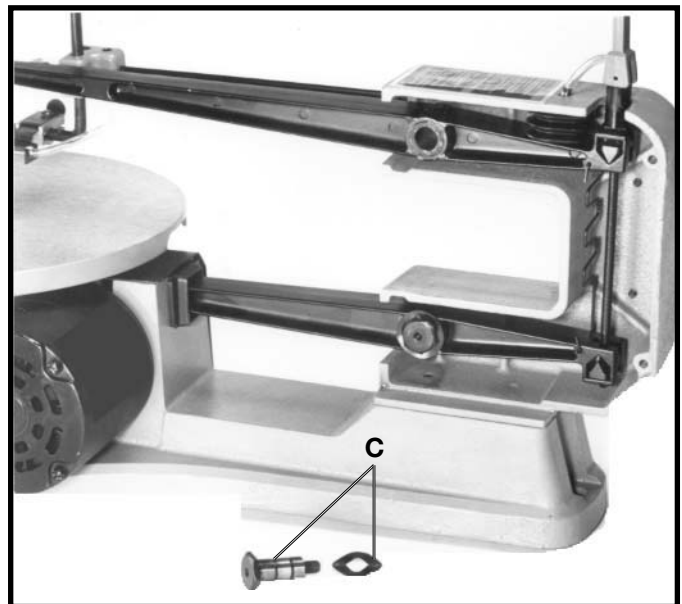


Fig. 28



# CHOICE OF BLADES

Your scroll saw will accept a wide variety of 5" flat end blades. Consider the following as a general guideline for selecting a blades.

1. Use a finer blade for cutting thin workpieces, for hard materials, or when a smooth cut is required.
2. Use a coarser blade for cutting thick workpieces, when making straight cuts or for medium to soft materials.
3. Use a blade that will have 2 teeth in the workpiece at all times.
4. Most blade packaging is marked with the size of the wood the blade is intended to cut and the minimum radius which can be cut with that blade.


## BLADE BREAKAGE

Blade breakage is usually caused by one or more of the following:

1. Bending the blade during installation.
2. Improper blade tension.
3. Improper blade selection for the work being cut.
4. Forcing the work into the blade too rapidly.
5. Cutting too sharp a turn for the blade being used.

# ACCESSORIES

A complete line of accessories is available from your Delta Supplier, Porter-Cable • Delta Factory Service Centers, and Delta Authorized Service Stations. Please visit our Web Site [www.deltamachinery.com](http://www.deltamachinery.com) for a catalog or for the name of your nearest supplier.

 **WARNING:** Since accessories other than those offered by Delta have not been tested with this product, use of such accessories could be hazardous. For safest operation, only Delta recommended accessories should be used with this product.



## PARTS, SERVICE OR WARRANTY ASSISTANCE

All Delta Machines and accessories are manufactured to high quality standards and are serviced by a network of Porter-Cable • Delta Factory Service Centers and Delta Authorized Service Stations. To obtain additional information regarding your Delta quality product or to obtain parts, service, warranty assistance, or the location of the nearest service outlet, please call 1-800-223-7278 (In Canada call 1-800-463-3582).



### Two Year Limited Warranty

Delta will repair or replace, at its expense and at its option, any Delta machine, machine part, or machine accessory which in normal use has proven to be defective in workmanship or material, provided that the customer returns the product prepaid to a Delta factory service center or authorized service station with proof of purchase of the product within two years and provides Delta with reasonable opportunity to verify the alleged defect by inspection. Delta may require that electric motors be returned prepaid to a motor manufacturer's authorized station for inspection and repair or replacement. Delta will not be responsible for any asserted defect which has resulted from normal wear, misuse, abuse or repair or alteration made or specifically authorized by anyone other than an authorized Delta service facility or representative. Under no circumstances will Delta be liable for incidental or consequential damages resulting from defective products. This warranty is Delta's sole warranty and sets forth the customer's exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by Delta.