

10" Compound Miter Saw

(Model 36-225)



PART NO. 899935 - 03-14-02
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visit our website at: www.deltamachinery.com.

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ESPAÑOL: PÁGINA 21

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

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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. Nonslip 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 MITER SAWS

1. **USE ONLY CROSS-CUTTING SAW BLADES. WHEN USING CARBIDE TIPPED BLADES, MAKE SURE THEY HAVE A NEGATIVE HOOK ANGLE.**
2. **DO NOT OPERATE** the miter saw until it is completely assembled and installed according to the instructions.
3. **IF YOU ARE NOT** thoroughly familiar with the operation of compound miter saws, obtain advice from your supervisor, instructor or other qualified person.
4. **DO NOT** perform any operation freehand. Secure or clamp workpiece firmly against fence.
5. **KEEP HANDS OUT OF PATH** of saw blade. If the workpiece you are cutting would cause your hand to be within hazard zone of the saw blade, the workpiece should be clamped in place before making cut.
6. **BE SURE** blade is sharp, runs freely and is free of vibration.
7. **ALLOW** the motor to come up to full speed before starting cut.
8. **KEEP** motor air slots clean and free of chips.
9. **ALWAYS MAKE SURE** all clamp handles are tight before cutting, even if the table is positioned in one of the positive stops.
10. **BE SURE** blade and flanges are clean and that arbor screw is tightened securely.
11. **USE** only blade flanges specified for your saw.
12. **NEVER** use blades larger or smaller in diameter than ten inches.
13. **NEVER** apply lubricants to the blade when it is running.
14. **ALWAYS** check the blade for cracks or damage before operation. Replace cracked or damaged blade immediately.
15. **NEVER** use blades recommended for operation at less than 6000 RPM.
16. **DO NOT** operate the saw without guards in place.
17. **ALWAYS** keep the lower blade guard in place and operating properly.
18. **NEVER** reach around or behind saw blade.
19. **MAKE SURE** blade is not contacting workpiece before switch is turned on.
20. **NEVER** lock the switch in the "ON" position.
21. **AFTER COMPLETING CUT**, release power switch and wait for coasting blade to stop before returning saw to raised position.
22. **TURN OFF** tool and wait for saw blade to stop before moving workpiece or changing settings.
23. **DO NOT** remove jammed or cut-off pieces until blade has stopped.
24. **NEVER** cut ferrous metals or masonry.
25. **NEVER** recut small pieces.
26. **PROVIDE** adequate support to the sides of the saw table for long workpieces.
27. **NEVER** use the miter saw in an area with flammable liquids or gases.
28. **NEVER** use solvents to clean plastic parts. Solvents could possibly dissolve or otherwise damage the material. Only a soft damp cloth should be used to clean plastic parts.
29. **DISCONNECT** power before changing blades or servicing.
30. **DISCONNECT** saw from power source and clean the machine before leaving it.
31. **MAKE SURE** the work area is cleaned before leaving the machine.
32. **THE USE** of attachments and accessories not recommended by Delta may result in the risk of injuries.
33. **SHOULD** any part of your miter saw be missing, damaged or fail in any way, or any electrical component fail to perform properly, shut off switch and remove plug from power supply outlet. Replace missing, damaged or failed parts before resuming operation.
34. **ADDITIONAL INFORMATION** regarding the safe and proper operation of this product is available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201, in the Accident Prevention Manual for Industrial Operation and also in the Safety Data Sheets provided by the NSC. Please also refer to the American National Standard Institute ANSI 01.1 Safety Requirements for Woodworking Machinery and the U.S. Department of Labor OSHA 1910.213 Regulations.
35. **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 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 110-120 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.

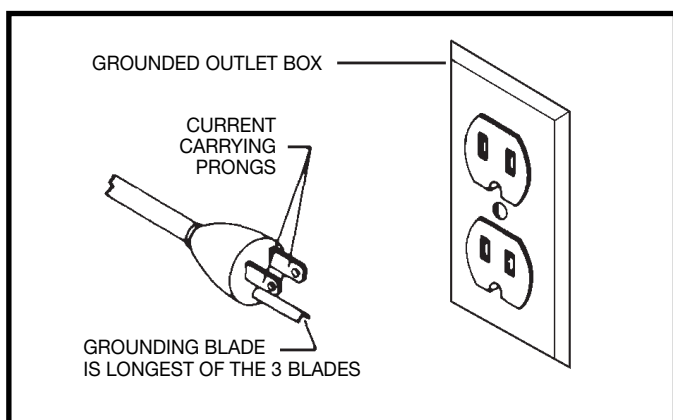


Fig. A

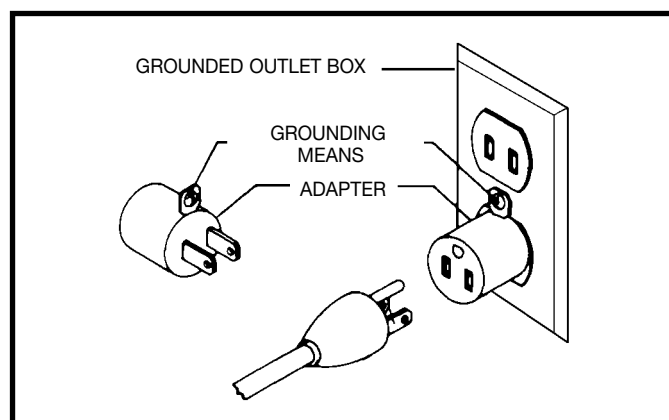


Fig. B

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	115	up to 25	18 AWG
0-6	115	25-50	16 AWG
0-6	115	50-100	16 AWG
0-6	115	100-150	14 AWG
6-10	115	up to 25	18 AWG
6-10	115	25-50	16 AWG
6-10	115	50-100	14 AWG
6-10	115	100-150	12 AWG
10-12	115	up to 25	16 AWG
10-12	115	25-50	16 AWG
10-12	115	50-100	14 AWG
10-12	115	100-150	12 AWG
12-16	115	up to 25	14 AWG
12-16	115	25-50	12 AWG
12-16	115	GREATER THAN 50 FEET NOT RECOMMENDED	

Fig. **D**

OPERATING INSTRUCTIONS

FOREWORD

Delta Model 36-225 is a 10" compound miter saw designed to cut wood or aluminum extrusion. Compound angle and bevel cutting are easy and accurate. It can crosscut up to 5-5/8" x 2-3/4", miter at 45° both left and right 4" x 2-3/4", bevel at 45° left 1-5/8" x 5-5/8", and compound 45° x 45°, 4" x 1-5/8". It has Patented trigger-controlled indexing with positive miter stops at 0°, 15.5°, 22.5°, 30°, and 45° both left and right, and bevel stops at 0° and 45° left.

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.

UNPACKING

1. Remove the miter saw and all loose items from the carton. **IMPORTANT: DO NOT LIFT THE MITER SAW BY THE SWITCH HANDLE AS THIS MAY CAUSE MISALIGNMENT. ALWAYS LIFT THE MACHINE BY THE BASE OR CARRYING HANDLE (see (D) Fig. 4A.** Fig. 2 illustrates the machine and all loose items after they have been removed from the carton.

- 1 - Miter Saw
- 2 - Dust Bag
- 3 - Wrench for changing the blade
- 4 - Clamp
- 5 - Table Extension (2)

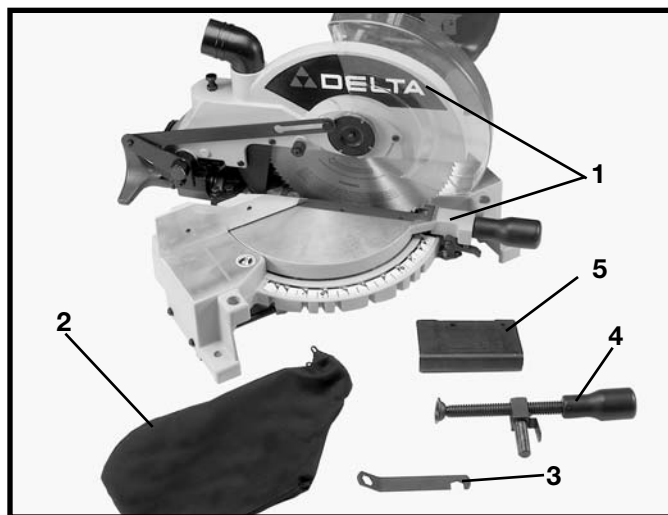


Fig. 2

ASSEMBLY INSTRUCTIONS



WARNING: FOR YOUR OWN SAFETY, DO NOT CONNECT THE MITER SAW TO THE POWER SOURCE UNTIL THE MACHINE IS COMPLETELY ASSEMBLED AND YOU HAVE READ AND UNDERSTOOD THE ENTIRE OWNER'S MANUAL.

MOVING THE CUTTINGHEAD TO THE RAISED POSITION

1. Push down on handle (A) Fig. 3, to release spring pressure. Then pull out cuttinghead lockpin (B) and move cuttinghead (C) to the raised position.
2. Fig. 4, illustrates the lockpin (B) pulled out and the cuttinghead (C) in the raised position.

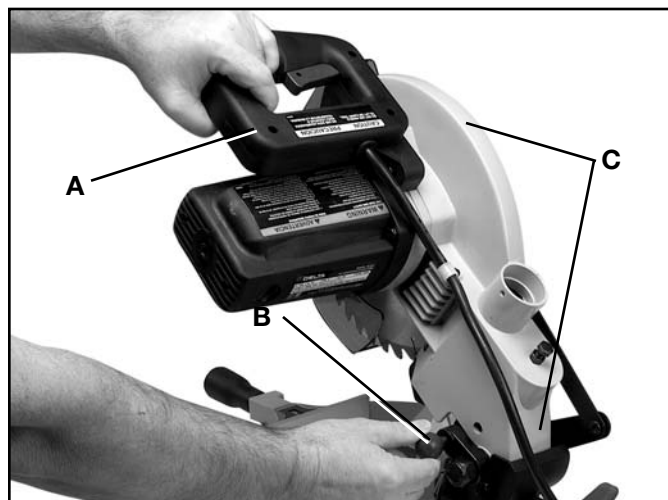


Fig. 3

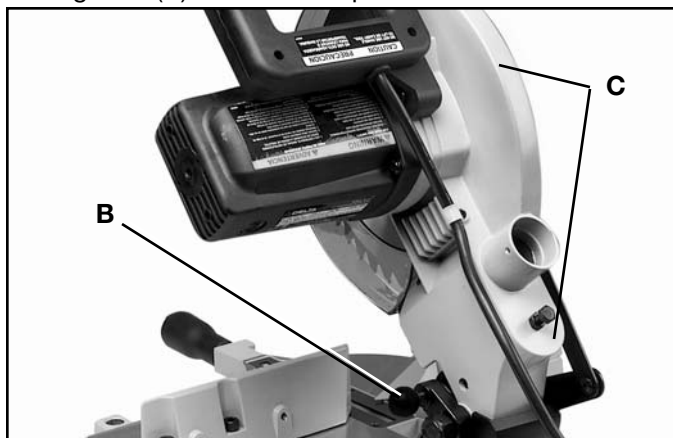


Fig. 4

ASSEMBLING TABLE EXTENSIONS

Remove two screws from each extension rods. Assemble ends of table extension (A) Fig. 4A, onto the extension rods (B) as shown. Tighten screws (C) to hold table extension in place.

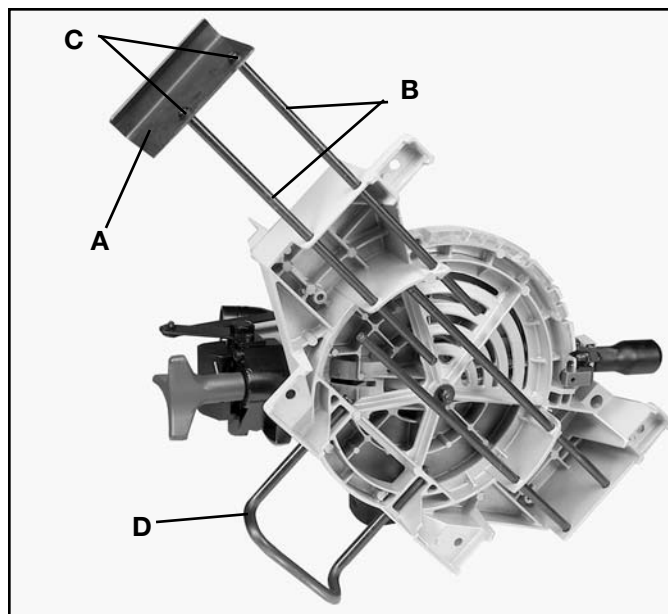


Fig. 4A

ROTATING TABLE TO THE 90° POSITION

Loosen table locking handle (A) Fig. 5, one turn and squeeze locking trigger (B). Rotate table until plunger (C) is engaged into the 90° stop (0° on scale). Then tighten handle (A) by turning clockwise.

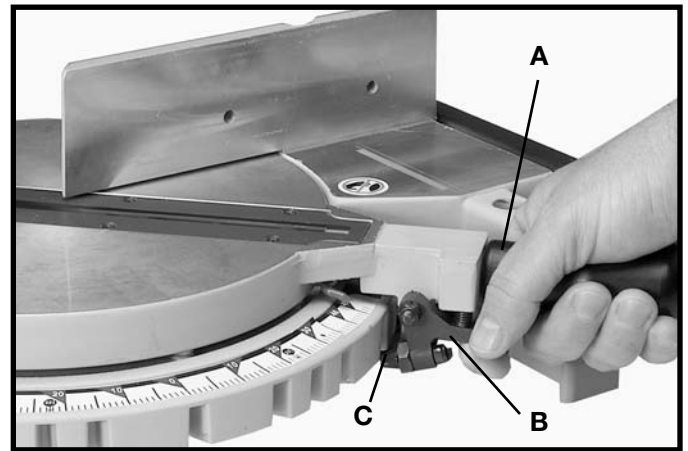


Fig. 5

ASSEMBLING DUST BAG

Assemble dust bag (A) Fig. 6, to free end of dust spout (B) as shown.

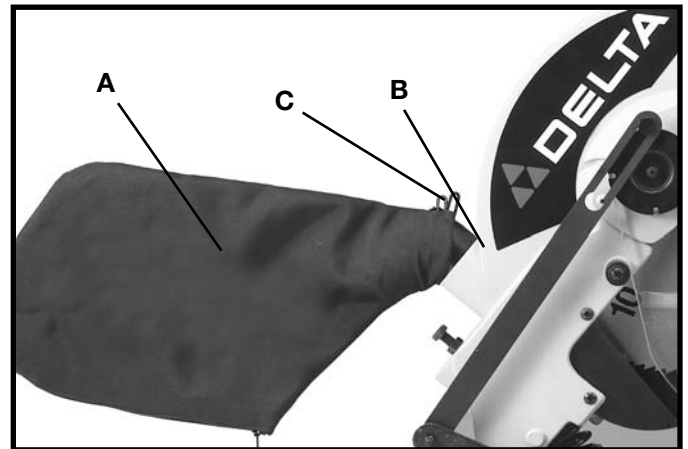


Fig. 6

ASSEMBLING WORK CLAMP

1. The work clamp (A) Fig. 7, can be used on either the right or left side of the saw base. Insert post of work clamp (A) into the hole located on either the right or left side of the saw base.

⚠ WARNING: Keep hands out of path of saw blade. If the workpiece you are cutting would cause your hand to be within the hazard zone of the saw blade, the workpiece should be clamped in place before making cut.



Fig. 7

IDENTIFICATION LABEL

The identification label is located at the rear of the motor housing as shown at (D) Fig. 8. Record the serial number onto the front cover of this manual for future reference.



Fig. 8

FASTENING MACHINE TO SUPPORTING SURFACE



Fig. 9

Before operating your compound miter saw, make sure it is firmly mounted to a sturdy workbench or other supporting surface. Four holes are provided, two of which are shown at (A) Fig. 9, for fastening the saw to a supporting surface.

When frequently moving the saw from place to place, we suggest that the saw be mounted to a 3/4" piece of plywood. The saw can then be easily moved from place to place and the plywood clamped to the supporting surface using "C" clamps.

TABLE HAZARD AREA

 **WARNING: THE AREA INSIDE THE TWO RED LINES (A) FIG. 9A, ON THE TABLE IS DESIGNATED AS A HAZARD ZONE. NEVER PLACE YOUR HANDS INSIDE THIS AREA WHILE THE TOOL IS BEING OPERATED.**

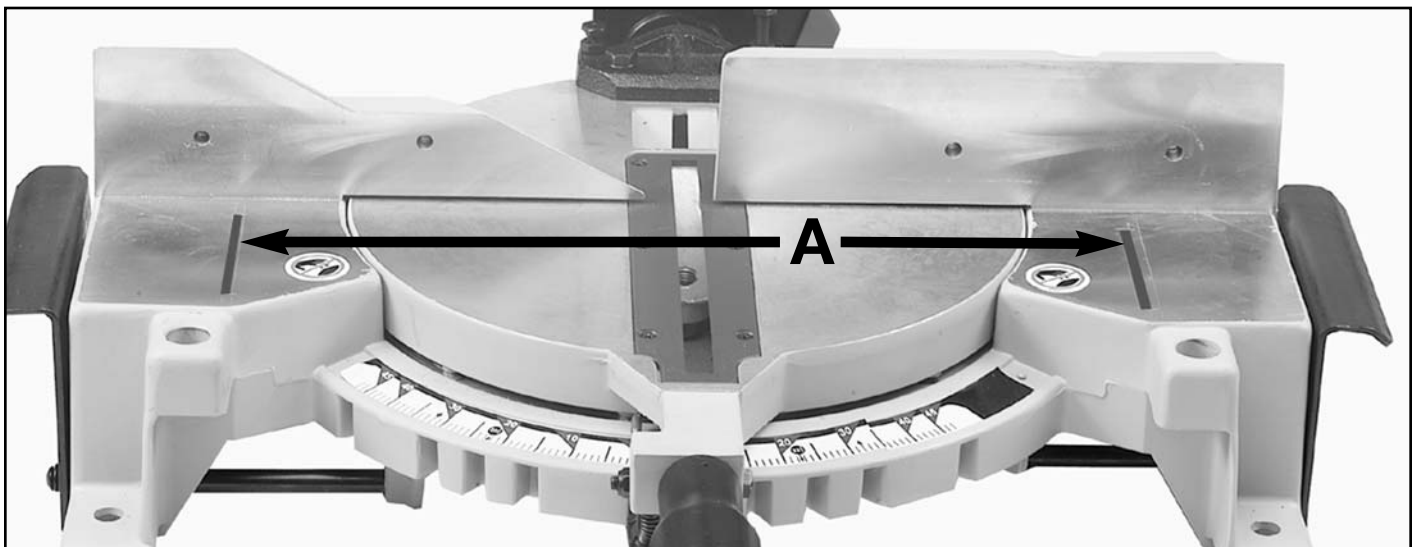


Fig. 9A

OPERATING CONTROLS

STARTING AND STOPPING MACHINE

To start the machine, depress switch trigger (A) Fig. 13. To stop the machine, release the switch trigger.

Your miter saw is equipped with an automatic electric blade brake. As soon as the switch trigger (A) Fig. 13, is released, the electric brake is activated and stops the blade in seconds.

⚠ WARNING: A TURNING SAW BLADE CAN BE HAZARDOUS. AFTER COMPLETING CUT, RELEASE SWITCH TRIGGER (A) FIG. 13, TO ACTIVATE BLADE BRAKE. KEEP CUTTINGHEAD DOWN UNTIL BLADE HAS COME TO A COMPLETE STOP. THEN RETURN CUTTING-HEAD TO THE RAISED POSITION.

⚠ WARNING: THE TORQUE DEVELOPED DURING BRAKING MAY LOOSEN THE ARBOR SCREW. THE ARBOR SCREW SHOULD BE CHECKED PERIODICALLY AND TIGHTENED IF NECESSARY.

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, using a padlock (B) Fig. 14 with a 3/16" diameter shackle.

ROTATING TABLE FOR MITER CUTTING

Your miter saw will cut any angle from a straight 90° (0° on scale) cut to 47° right and left. Simply loosen lock handle (A) Fig. 15, squeeze plunger trigger (B), and move the control arm to the desired angle. **THEN TIGHTEN LOCK HANDLE (A).**

The miter saw is equipped with positive stops at the 0°, 15.5°, 22.5°, 30°, and 45° right and left positions. Simply loosen lock handle (A) Fig. 15, and move the control arm until the plunger engages into one of the nine positive stops, eight of which are shown at (C). **THEN TIGHTEN LOCK HANDLE (A).** To disengage the positive stop, squeeze plunger trigger (B). If adjustment to the positive stops is necessary, see section titled “**ADJUSTING TABLE POSITIVE STOPS**”. In addition, a triangle indicator is provided on the miter scale at the 31-5/8° right and left miter positions for cutting crown moulding. Refer to the “**CUTTING CROWN MOULDING**” section of this manual.

IMPORTANT: ALWAYS TIGHTEN LOCK HANDLE (A) FIG. 15, BEFORE CUTTING.

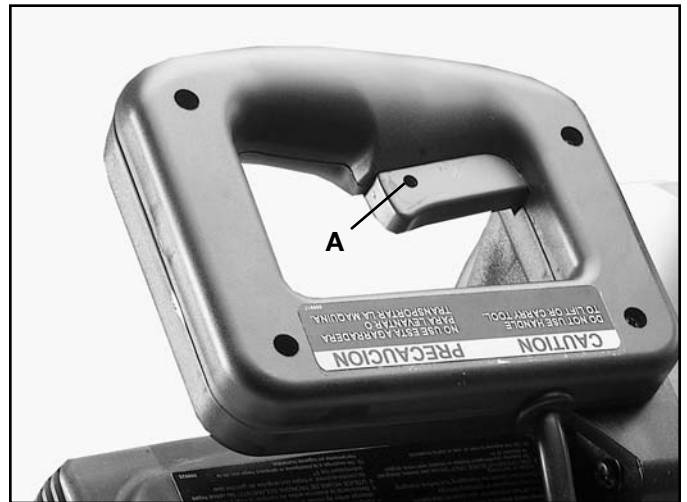


Fig. 13



Fig. 14

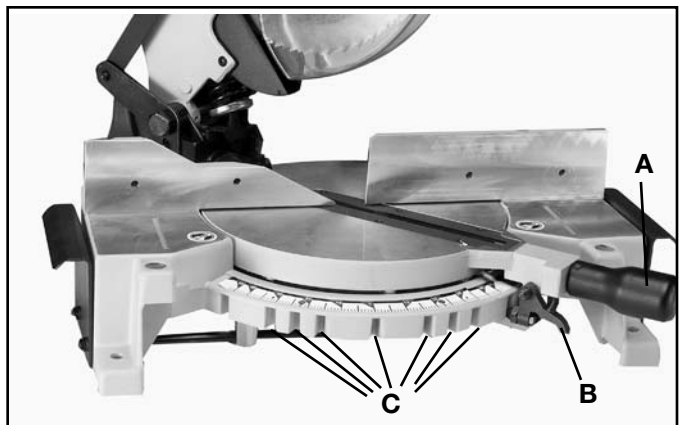


Fig. 15

POINTER AND SCALE

A pointer (A) Fig. 16, is supplied which indicates the actual angle of cut. Each line on the scale (B) represents 1°. In effect, when the pointer is moved from one line to the next on the scale, the angle of cut is changed by 1°.

TILTING CUTTINGHEAD FOR BEVEL CUTTING

The cuttinghead of your compound miter saw can be tilted to cut any bevel angle from a 90° straight cut-off to a 45° left bevel angle by loosening bevel lock handle (A) Fig. 17, tilting cutting arm (B) to the desired angle and tightening lock handle (A).

Positive stops are provided to rapidly position the saw blade at 90° (0° on scale) and 45° to the table. Refer to the section of this manual titled “**ADJUSTING 90° (0° on scale) AND 45° BEVEL STOPS**”. The bevel angle of the cutting arm is determined by the position of the pointer (C) Fig. 17, on the scale (D).

In addition, a triangle indicator is provided on the bevel scale at the 33-7/8° bevel angle for cutting crown moulding. Refer to the “**CUTTING CROWN MOULDING**” section of this manual.

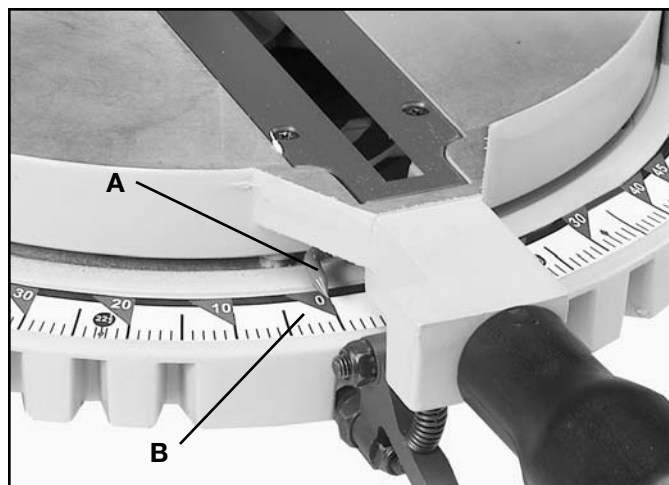


Fig. 16

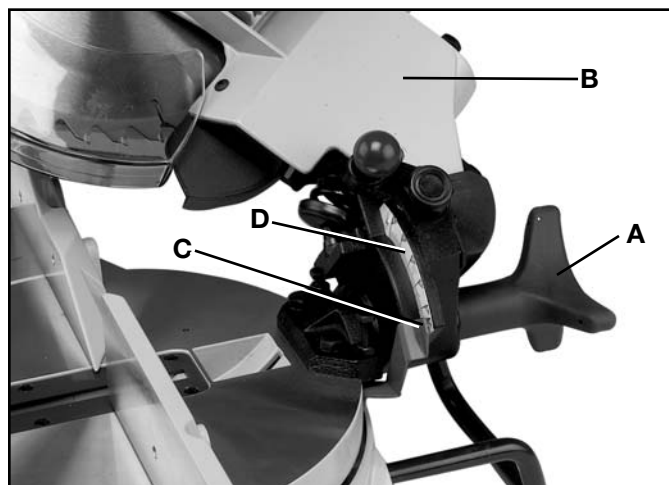


Fig. 17

LOCKING CUTTINGHEAD IN THE DOWN POSITION

When transporting the saw, the cuttinghead should always be locked in the down position. This can be accomplished by lowering the cutting arm (A) Fig. 18, and pushing in plunger (B) until other end of plunger (B) engages with hole in cutting arm. **IMPORTANT: NEVER CARRY THE COMPOUND MITER BOX BY THE SWITCH HANDLE. THIS MAY CAUSE MISALIGNMENT. ALWAYS LIFT THE MACHINE BY THE BASE OR CARRYING HANDLE (C) FIG. 18.**

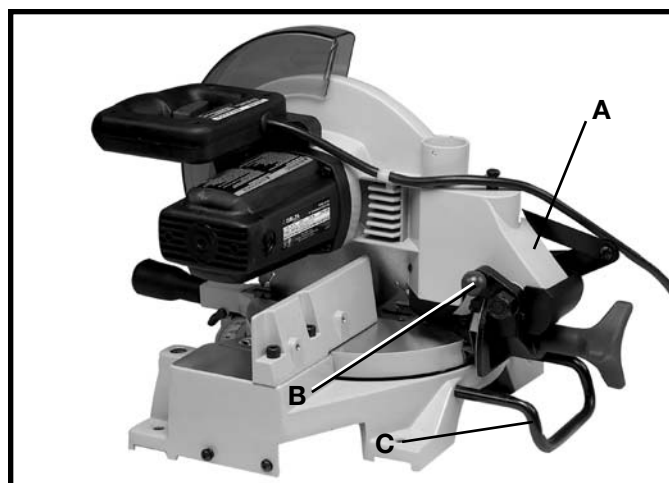


Fig. 18

REAR SUPPORT/ CARRYING HANDLE

A rear support bar (A) Fig. 19, is provided to prevent the miter saw from tipping to the rear when the cuttinghead is returned to the raised position after a cut has been made. For maximum support, support bar (A) should be pulled out as far as possible before attempting to perform a cut.

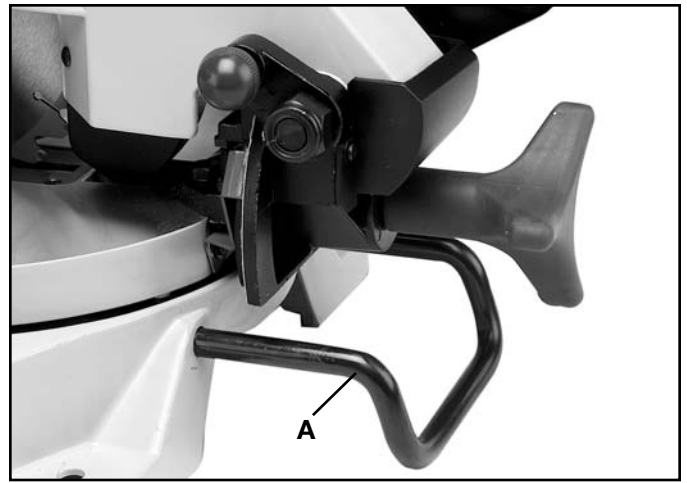


Fig. 19

The support bar (A) also acts as a carrying handle, as shown in Fig. 20, when transporting the saw.

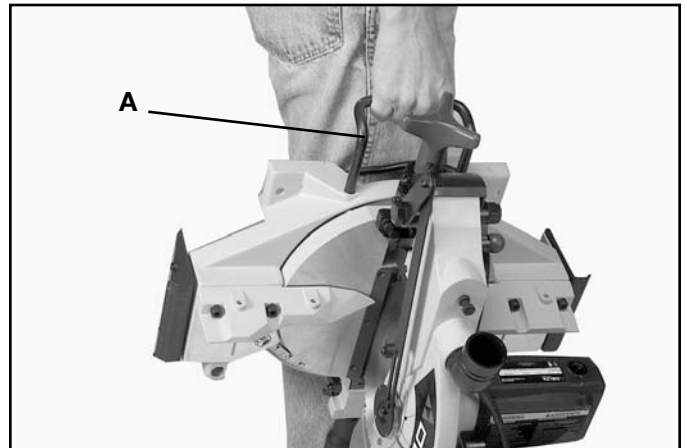


Fig. 20

TABLE EXTENSIONS

There are table extensions (A) Fig. 21, on each side of the miter saw base to help support long workpieces. To extend the table extensions, simply grasp and pull outward as shown in Fig. 21.

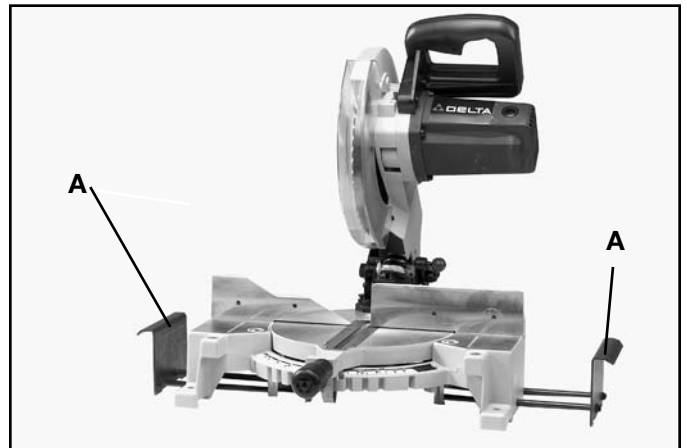


Fig. 21

Fig. 22, illustrates table extensions fully extended.



Fig. 22

ADJUSTMENTS

ADJUSTING TABLE POSITIVE STOPS

**DISCONNECT SAW FROM POWER SOURCE
BEFORE PERFORMING ANY ADJUSTMENTS.**

1. Using a straight edge (G) Fig. 23, determine if the two fence halves are parallel to each other by placing the straight edge against the front surfaces of the fence as shown. If an adjustment is necessary, loosen fence mounting screws, two of which are shown at (H), and make the required adjustments. Then tighten fence mounting screws. NOTE: Make certain the saw is still cutting a true 90°.
2. Move the table to the 0° straight cut-off position, making sure the plunger (B) is engaged in the 0° positive stop and tighten the lock handle (A) as shown in Fig. 27.
3. Clamp workpiece and make a cut on a piece of wood, as shown in Fig. 24.
4. Using a square, check to see if the piece of wood was cut at 90°, as shown in Fig. 25.
5. If an adjustment is necessary, loosen the lock handle (A) Fig. 26, one turn. Then loosen locknut (B) and turn eccentric nut (C) right or left as necessary and tighten lock nut (B).
6. Make another test cut and if further adjustment is necessary, repeat the above instructions.
7. When you are certain the cut is at 90°, adjust pointer (D) Fig. 27, to point to the "0" mark on the scale, by loosening set screw (E).
8. Once the 90° positive stop is adjusted, all positive stops will also be adjusted.

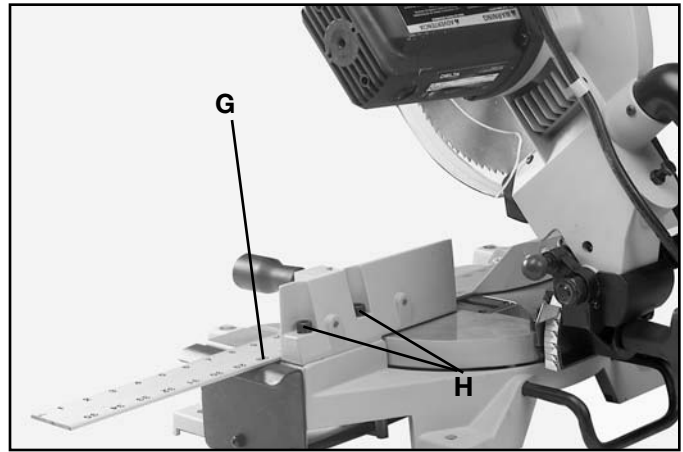


Fig. 23



Fig. 24



Fig. 25

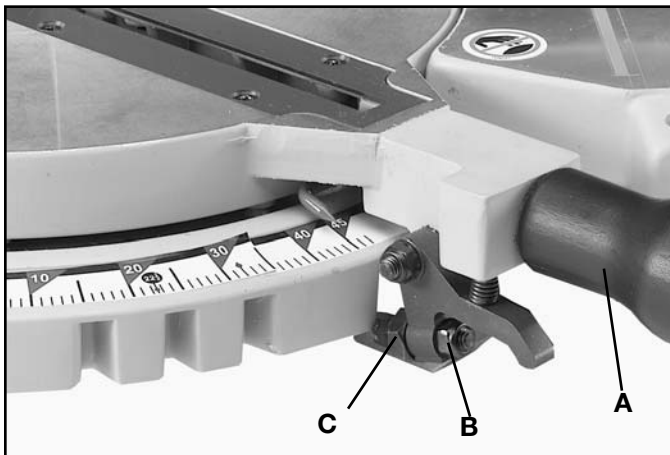


Fig. 26

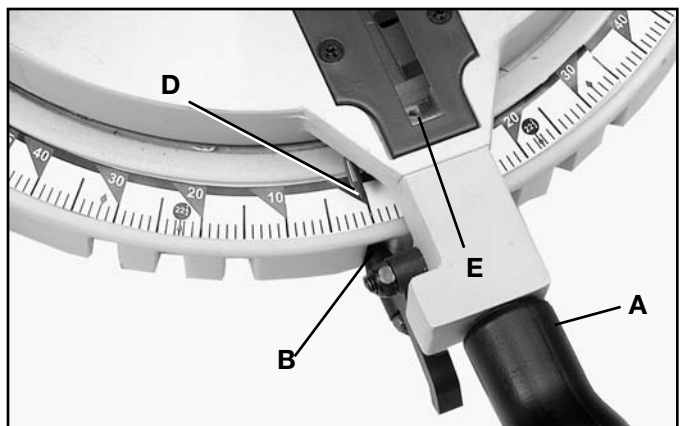


Fig. 27

ADJUSTING 90° AND 45° BEVEL STOPS

1. **DISCONNECT THE SAW FROM THE POWER SOURCE.**
2. Loosen bevel lock handle (H) Fig. 29, and move the cutting arm all the way to the right, then tighten the bevel lock handle.
3. Using a square (A) Fig. 28, place one end of the square on the table and the other end against the blade. Check to see if the blade is at 90° to the table, as shown in Fig. 28.
4. If an adjustment is necessary, loosen locknut (B) Fig. 29, and turn screw (C) until head of screw (C) contacts casting (D) when blade is 90° to the table. Then tighten locknut (B).
5. Loosen bevel lock handle (H) Fig. 29, and move the cutting arm all the way to the left bevel position and tighten bevel lock handle.
6. Using a combination square (A) Fig. 30, check to see if the blade is at 45° to the table, as shown.
7. If an adjustment is necessary, loosen locknut (E) Fig. 31, and turn screw (F) until screw (F) contacts casting (G) when blade is 45° to the table. Then tighten locknut (E).
8. These positive stops enable you to rapidly position the blade at the 90° (0° on scale) and 45° bevel angle to the table.



Fig. 28

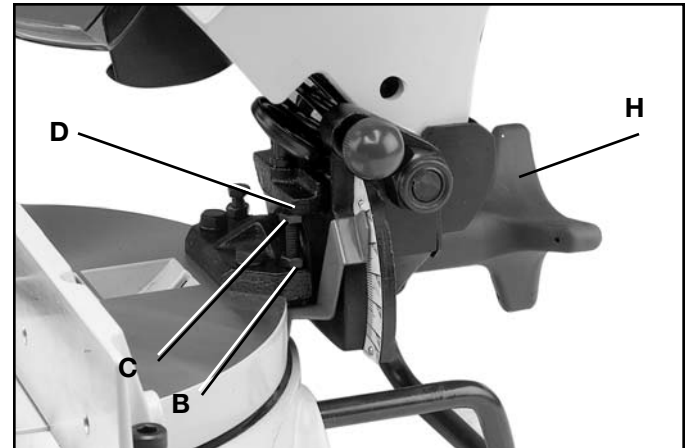


Fig. 29



Fig. 30

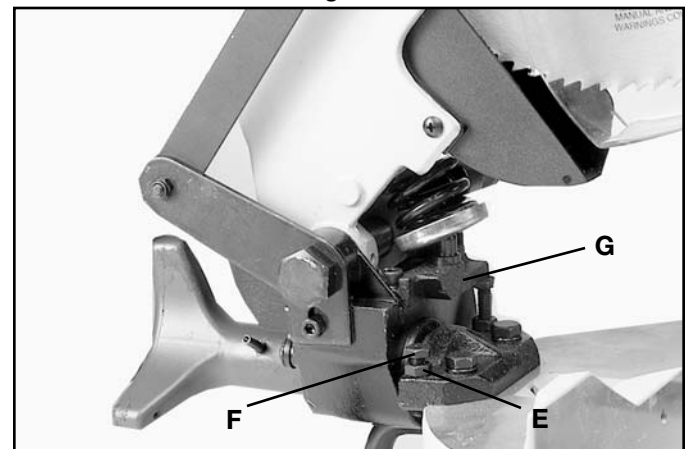


Fig. 31

ADJUSTING DOWNWARD TRAVEL OF SAW BLADE

1. **DISCONNECT THE SAW FROM THE POWER SOURCE.**
2. The downward travel of the saw blade can be limited to prevent the saw blade from contacting any metal surfaces of the machine. This adjustment is made by loosening locknut (A) Fig. 32, and turning adjusting screw (B) in or out. Then tighten locknut (A).
3. When making this adjustment, **MAKE SURE THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE** and lower the blade as far as possible as shown in Fig. 32. Rotate the blade by hand to make certain the teeth do not contact any metal surfaces and adjust if necessary.



Fig. 32

ADJUSTING BLADE PARALLEL TO TABLE SLOT

1. DISCONNECT THE SAW FROM THE POWER SOURCE.

2. Lower the cutting arm. The saw blade (A) Fig. 33, should be parallel to the left edge (B) of the table opening.

3. If an adjustment is necessary, raise the cuttinghead, loosen screws (C) Fig. 34, and move the cutting arm until the blade is parallel with the left edge (B) Fig. 33 of the table opening. Then tighten the two screws (C) Fig. 34.

4. Check miter angles and readjust as necessary.

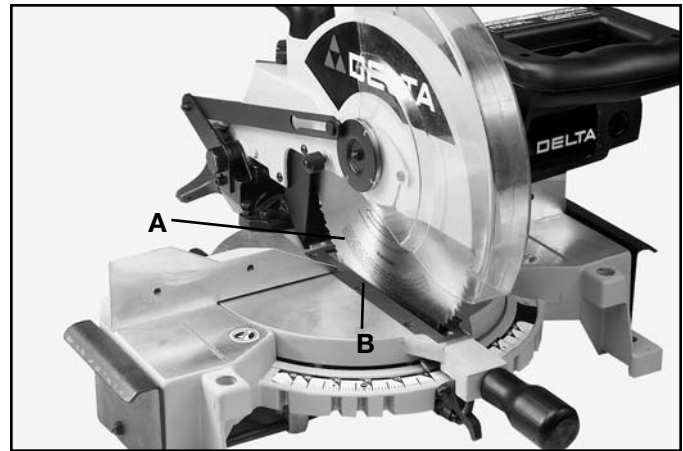


Fig. 33

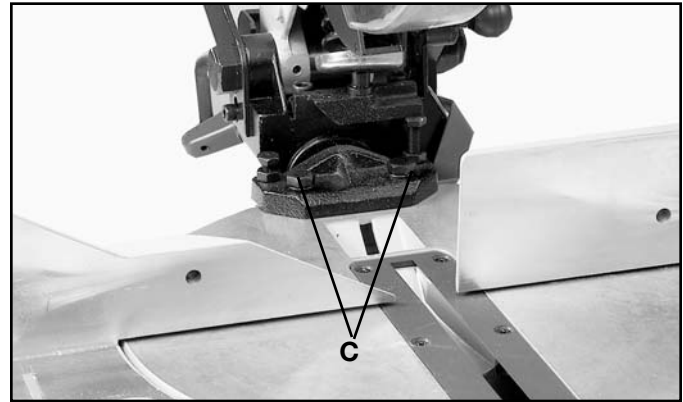


Fig. 34

TYPICAL OPERATIONS AND HELPFUL HINTS

1. Before cutting, make certain the cutting arm and table are at their correct settings and firmly locked in place.

2. Before cutting, determine that the saw is the right size for the workpiece.

3. Place the workpiece on the table and clamp it firmly against the fence. Fig. 35, illustrates the standard equipment work clamp (A) being used to clamp a workpiece to the fence. The clamp (A) can also be used on the right side of the machine.

4. For best results cut at a slow, even cutting rate.

5. **⚠ WARNING:** If the workpiece you are cutting would cause your hand to be within the hazard zone of the saw blade, the workpiece should be clamped in place before making cut. See Fig. 35.

6. Never attempt any freehand cutting (wood that is not held firmly against the fence and table).

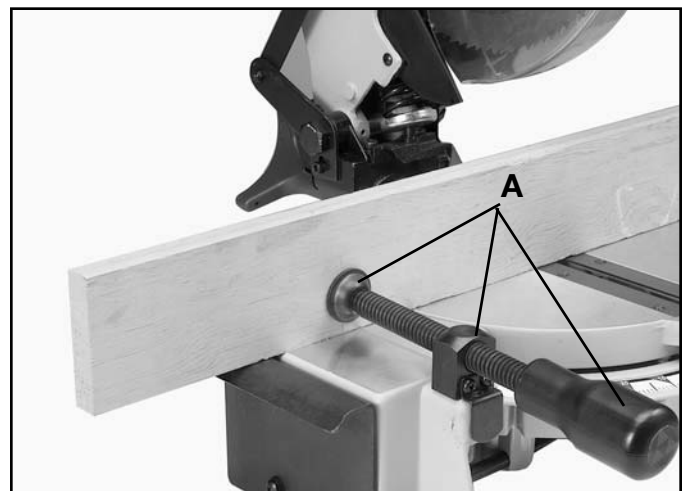


Fig. 35

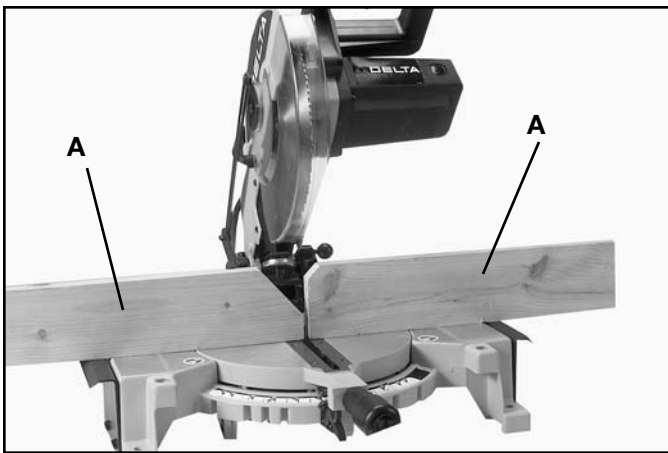


Fig. 36



Fig. 37

AUXILIARY WOOD FENCE

When performing multiple or repetitive cut-off operations that result in small cut-off pieces, one inch or less, it is possible for the saw blade to catch the cut-off pieces and project them out of the machine or into the blade guard and housing, possibly causing damage or injury. In order to limit the possibility of personal injury or blade guard damage, an auxiliary wood fence can be mounted to your saw as follows:

Holes are provided in the fence to attach an auxiliary fence (A) Fig. 36. This auxiliary fence is constructed of straight wood approximately 1/2 inch thick by 3 inches high by 18 inches long. NOTE: The auxiliary fence (A) is used ONLY with the saw blade in the 0° bevel position (90° to the table). When bevel cutting (blade tilted) the auxiliary fence will have to be removed.

GENERAL CUTTING OPERATIONS

1. Your compound miter saw has the capacity to cut standard 2 x 6's at the straight 90° cut-off position, as shown in Fig. 37.
2. A standard 2 x 4 can be mitered at 45° cut-off position at 90° or 45° bevel positions as shown in Fig. 38.
3. Cutting a standard 4 x 4 at 90° is easily accomplished with your compound miter box, as shown in Fig. 39.



Fig. 38



Fig. 39

CUTTING ALUMINUM

Aluminum extrusions such as used for making aluminum screens and storm windows can easily be cut with your compound miter saw. When cutting aluminum extrusions, or other sections that can be cut with a saw blade and are within the capacity of the machine, position the material so the blade is cutting through the smallest cross-section, as shown in Fig. 40. The wrong way to cut aluminum angles is illustrated in Fig. 41. Be sure to apply a stick wax (similar to Johnson's stick wax #140) to the blade before cutting any aluminum stock. This stick wax is available at most industrial mill supply houses. The stick wax provides proper lubrication and keeps chips from adhering to the blade.

⚠ WARNING: NEVER APPLY LUBRICANT TO THE BLADE WHILE THE MACHINE IS RUNNING.

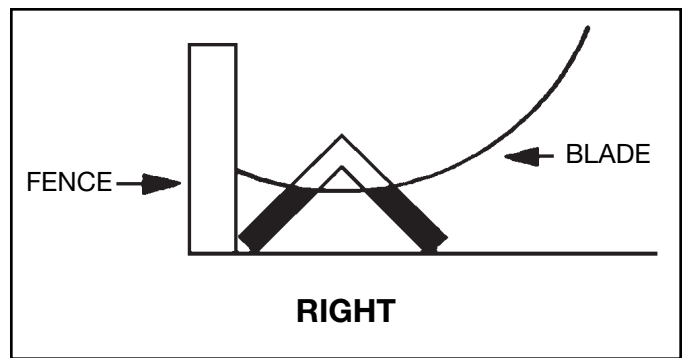


Fig. 40

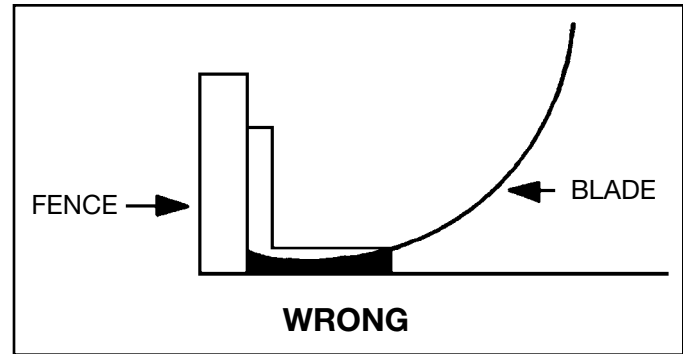


Fig. 41

CUTTING BOWED MATERIAL

When cutting flat pieces, first check to see if the material is bowed. If it is, make sure the material is positioned on the table as shown in Fig. 42.

If the material is positioned the wrong way, as shown in Fig. 43, the workpiece will pinch the blade near the completion of the cut.

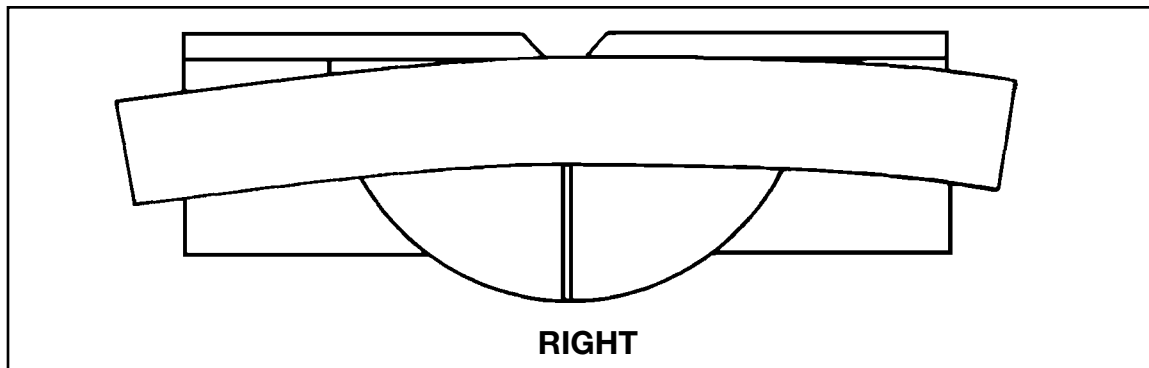


Fig. 42

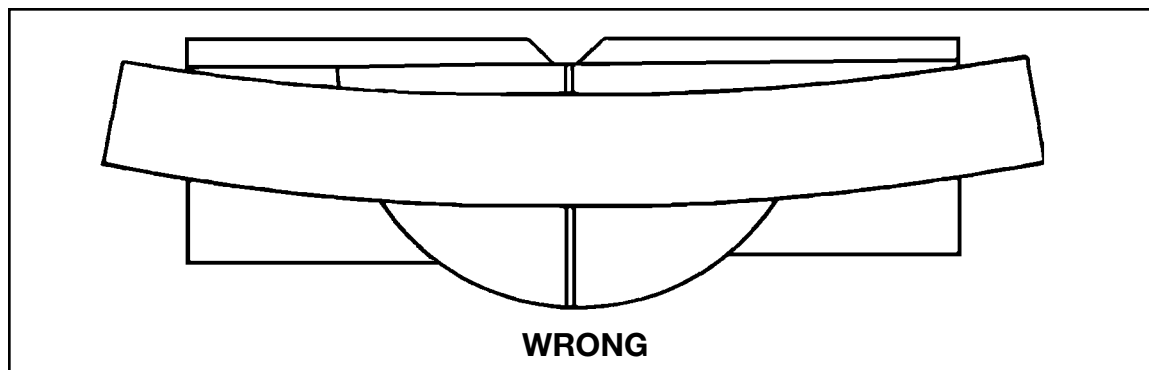


Fig. 43

CUTTING CROWN MOULDING

One of the many features of your saw is the ease of cutting crown moulding. The following is an example of cutting both inside and outside corners on 52/38° wall angle crown moulding. **NOTE:** When cutting 45° wall angle crown moulding the following procedure for inside and outside corners is the same with the exception that the bevel position will always be at 30° and the miter position will be 35-1/4° to the right or left.

1. Move the table to the 31-5/8° right miter position and lock the table in position. **NOTE:** A triangle indicator is provided on the miter scale to find this angle quickly.

2. Tilt the saw blade to the 33-7/8° left bevel position and tighten bevel lock handle. **NOTE:** A triangle indicator is provided on the bevel scale to find this angle quickly.

3. Place the crown moulding on the table with the **CEILING EDGE** of the moulding against the fence, and make the cut, as shown in Fig. 44. **NOTE:** The piece of crown moulding used for the outside corner will always be on the right hand side of the blade, as shown at (A) Fig. 44. The piece of crown moulding used for the inside corner will always be on the left hand side of the blade, as shown at (B) Fig. 44.

4. To make the matching halves of the inside and outside corners simply rotate the table to the 31-5/8° left miter position and tighten table lock handle. **NOTE:** A triangle indicator is provided on the miter scale to find this angle quickly.

5. Place the crown moulding on the table with the **WALL EDGE** of the crown moulding against the fence as shown in Fig. 45, then make the cut. Again, the piece of crown moulding used for the outside corner will always be on the right side of the blade, as shown at (C) Fig. 45. The piece of crown moulding used for the inside corner will always be on the left side of the blade, as shown at (D) Fig. 45.

6. Fig. 46, illustrates the two outside corner pieces; (A) being the piece cut at (A) Fig. 44, and (C) being the piece cut at (C) Fig. 45.

7. Fig. 47, illustrates the two inside corner pieces; (B) being the piece cut at (B) Fig. 44, and (D) being the piece cut at (D) Fig. 45.

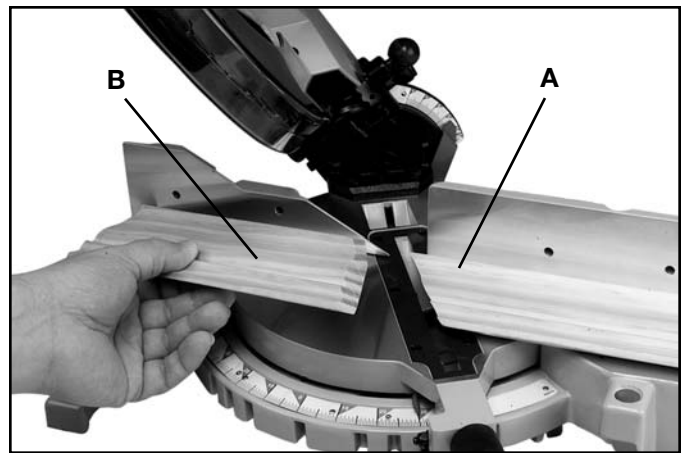


Fig. 44

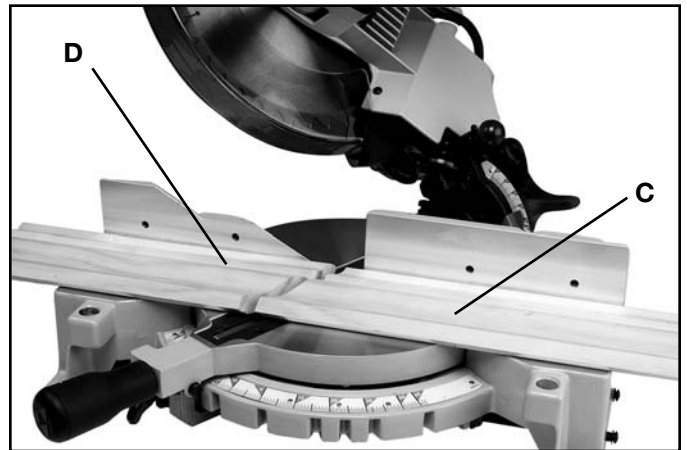


Fig. 45

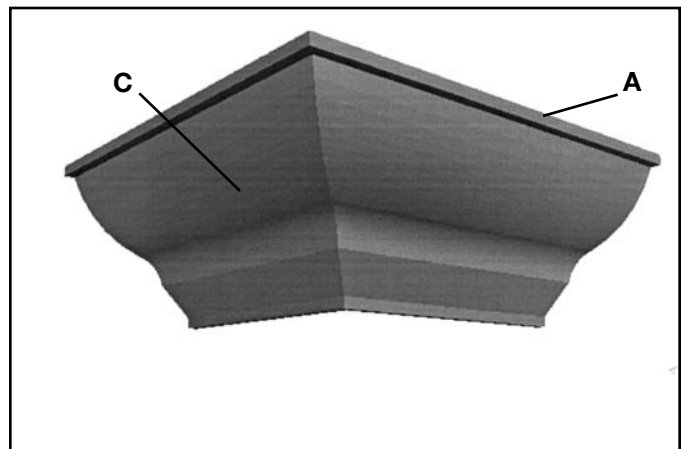


Fig. 46

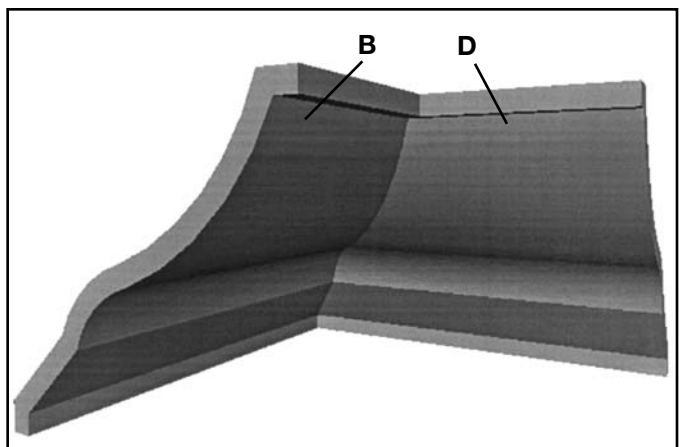


Fig. 47

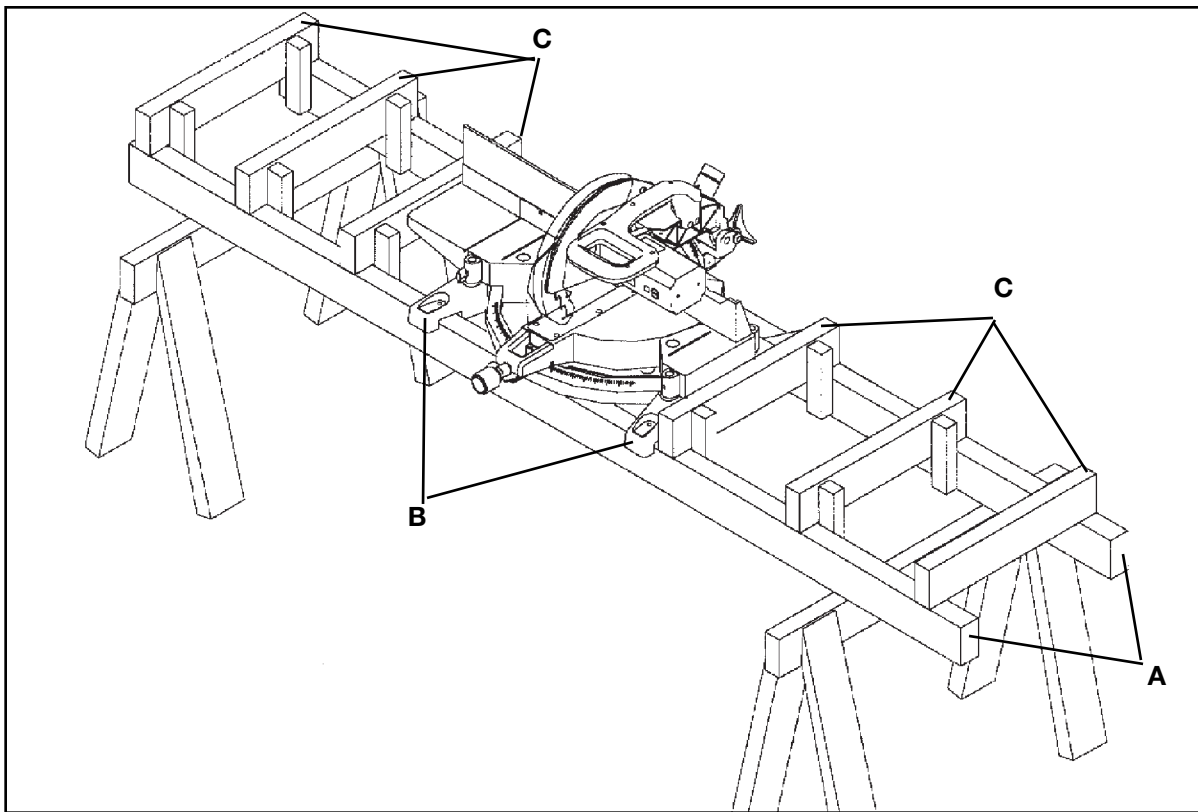


Fig. 48

CONSTRUCTING WORK SUPPORT EXTENSIONS

One of the unique features of your miter saw is the ease with which you can construct work supports. Fig. 48, illustrates the miter saw mounted to two standard 2 x 4's (A). Fasten the grooves in the four mounting legs, two of which are shown at (B), to the 2 x 4's using four screws through the four holes in the mounting legs. The length of the 2 x 4's (A) can vary depending on your preference. The distance from the top of the 2 x 4's (A) to the compound miter saw table is 3-1/2 inches. This enables you to fasten standard 2 x 4's (C) to the top of the 2 x 4's (A), as shown. The top of the 2 x 4's (C) will then be the same height as the miter saw table. This method allows you to provide support for long work-pieces using standard 2 x 4's instead of constructing an expensive, complicated work support.

MAINTENANCE

CHANGING THE BLADE

⚠ WARNING: USE ONLY CROSS-CUTTING SAW BLADES. USE ONLY 10" DIAMETER SAW BLADES RATED FOR 6000 RPM OR HIGHER WITH 5/8" ARBOR HOLES.

1. **DISCONNECT THE MACHINE FROM THE POWER SOURCE.**
2. Remove screw (A) Fig. 49.



Fig. 49

3. Rotate arbor cover (B) Fig. 50, and lower guard (G) to the rear, exposing arbor screw (C), as shown.

4. Remove arbor screw (C) Fig. 50, by turning screw clockwise with wrench supplied while at the same time pressing in on arbor lock (D) Fig. 51, to keep the arbor from turning. Remove outside blade flange (E) Fig. 50, and saw blade (F). **DO NOT REMOVE INSIDE BLADE FLANGE.**

5. Assemble new saw blade **MAKING CERTAIN TEETH OF SAW BLADE ARE POINTING DOWN AT THE FRONT, AS SHOWN** and assemble outside blade flange (E)

Fig. 50, making sure flats on outside blade flange are engaged with flats on arbor shaft.

6. Thread arbor screw (C) Fig. 50, into saw arbor by turning screw (C) counterclockwise as far as possible by hand. Then tighten arbor screw (C) with wrench supplied while at the same time pressing in on arbor lock (D) Fig. 51, to keep arbor from turning.

7. Rotate arbor cover (B) Fig. 50, and lower guard (G) to the front and replace screw that was removed in **STEP 2** and securely tighten.

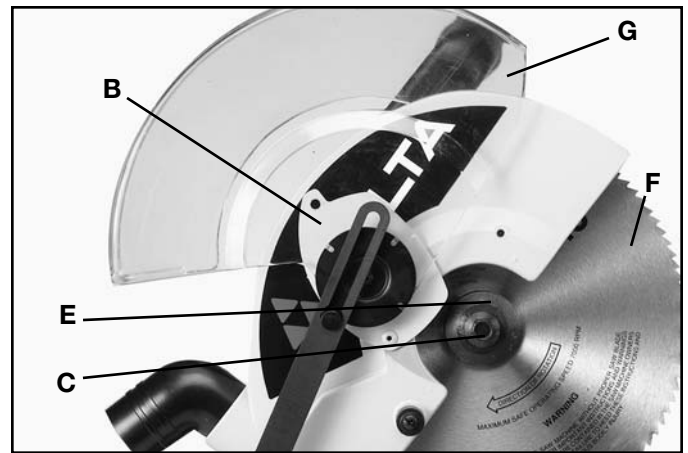


Fig. 50

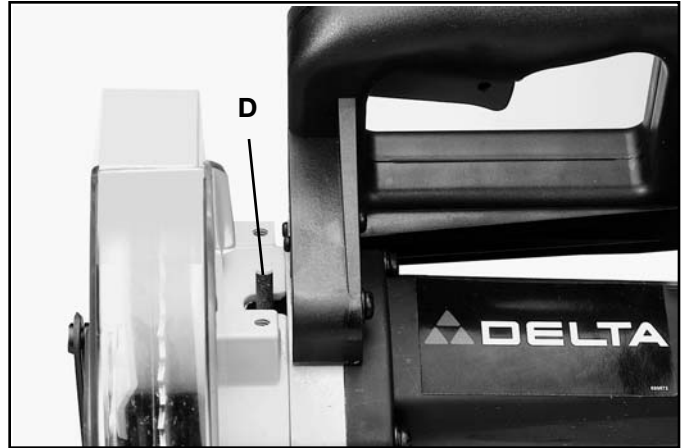


Fig. 51

BRUSH INSPECTION AND REPLACEMENT

CAUTION: BEFORE INSPECTING BRUSHES, DISCONNECT THE MACHINE FROM THE POWER SOURCE.

Brush life varies. It depends on the load on the motor. Check the brushes after the first 50 hours of use for a new machine or after a new set of brushes has been installed.

After the first check, examine them after about 10 hours of use until such time that replacement is necessary.

The brush holders (A) Fig. 52, are located on the motor housing opposite each other. Fig. 53, illustrates one of the brushes removed for inspection. When the carbon on either brush is worn to 3/16" in length or if either spring or shunt wire is burned or damaged in any way, replace both brushes. If the brushes are found serviceable after removing, reinstall them in the same position as removed.



Fig. 52



Fig. 53

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