

11365

6" Belt / 9" Disc Sander (Model 31-695)

INSTRUCTION MANUAL



PART NO. 902122 - 02-20-04
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 **DELTA**

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RTD10000116AA

SAFETY GUIDELINES - DEFINITIONS

This manual contains information that is important for you to know and understand. This information relates to protecting YOUR SAFETY and PREVENTING EQUIPMENT PROBLEMS. To help you recognize this information, we use the symbols below. Please read the manual and pay attention to these sections.

- ⚠ DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
- ⚠ WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- ⚠ CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
- CAUTION** Used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

⚠ 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, always wear **MSHA/NIOSH** approved, properly fitting face mask or respirator when using such tools.

GENERAL SAFETY RULES



⚠ WARNING **READ AND UNDERSTAND ALL WARNINGS AND OPERATING INSTRUCTIONS BEFORE USING THIS EQUIPMENT.** Failure to follow all instructions listed below, may result in electric shock, fire, and/or serious personal injury or property damage.

IMPORTANT SAFETY INSTRUCTIONS

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. For additional information please visit our website www.deltamachinery.com.

⚠ WARNING 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)

GENERAL SAFETY RULES

⚠ WARNING FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS INJURY.

- 1. FOR YOUR OWN SAFETY, READ THE INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE.** Learning the machine's application, limitations, and specific hazards will greatly minimize the possibility of accidents and injury.
- 2. WEAR EYE PROTECTION. ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses are NOT safety glasses. **USE CERTIFIED SAFETY EQUIPMENT.** Eye protection equipment should comply with ANSI Z87.1 standards, hearing equipment should comply with ANSI S3.19 standards, and dust mask protection should comply with MSHA/NIOSH certified respirator standards. Splinters, air-borne debris, and dust can cause irritation, injury, and/or illness.
- 3. 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.
- 4. DO NOT USE THE MACHINE IN A DANGEROUS ENVIRONMENT.** The use of power tools in damp or wet locations or in rain can cause shock or electrocution. Keep your work area well-lit to prevent tripping or placing arms, hands, and fingers in danger.
- 5. MAINTAIN ALL TOOLS AND MACHINES IN PEAK CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Poorly maintained tools and machines can further damage the tool or machine and/or cause injury.
- 6. CHECK FOR DAMAGED PARTS.** Before using the machine, check for any damaged parts. Check for alignment of moving parts, binding of moving parts, breakage of parts, and any other conditions that may affect its operation. A guard or any other part that is damaged **should be properly repaired or replaced.** Damaged parts can cause further damage to the machine and/or injury.
- 7. KEEP THE WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
- 8. KEEP CHILDREN AND VISITORS AWAY.** Your shop is a potentially dangerous environment. Children and visitors can be injured.
- 9. REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure that the switch is in the "OFF" position before plugging in the power cord. In the event of a power failure, move the switch to the "OFF" position. An accidental start-up can cause injury.
- 10. USE THE GUARDS.** Check to see that all guards are in place, secured, and working correctly to prevent injury.
- 11. REMOVE ADJUSTING KEYS AND WRENCHES BEFORE STARTING THE MACHINE.** Tools, scrap pieces, and other debris can be thrown at high speed, causing injury.
- 12. USE THE RIGHT MACHINE.** Don't force a machine or an attachment to do a job for which it was not designed. Damage to the machine and/or injury may result.
- 13. USE RECOMMENDED ACCESSORIES.** The use of accessories and attachments not recommended by Delta may cause damage to the machine or injury to the user.
- 14. USE THE 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. See the Extension Cord Chart for the correct size depending on the cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
- 15. SECURE THE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. Loss of control of a workpiece can cause injury.
- 16. FEED THE WORKPIECE AGAINST THE DIRECTION OF THE ROTATION OF THE BLADE, CUTTER, OR ABRASIVE SURFACE.** Feeding it from the other direction will cause the workpiece to be thrown out at high speed.
- 17. DON'T FORCE THE WORKPIECE ON THE MACHINE.** Damage to the machine and/or injury may result.
- 18. DON'T OVERREACH.** Loss of balance can make you fall into a working machine, causing injury.
- 19. NEVER STAND ON THE MACHINE.** Injury could occur if the tool tips, or if you accidentally contact the cutting tool.
- 20. NEVER LEAVE THE MACHINE RUNNING UNATTENDED. TURN THE POWER OFF.** Don't leave the machine until it comes to a complete stop. A child or visitor could be injured.
- 21. 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. An accidental start-up can cause injury.
- 22. MAKE YOUR WORKSHOP CHILDPROOF WITH PADLOCKS, MASTER SWITCHES, OR BY REMOVING STARTER KEYS.** The accidental start-up of a machine by a child or visitor could cause injury.
- 23. STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE. DO NOT USE THE MACHINE WHEN YOU ARE TIRED OR UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR MEDICATION.** A moment of inattention while operating power tools may result in injury.
- 24. TAKE PRECAUTIONS AGAINST DUST INHALATION.** 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.

ADDITIONAL SAFETY RULES FOR ABRASIVE FINISHING MACHINES

▲ WARNING

FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS INJURY.

1. **DO NOT OPERATE THIS MACHINE** until it is completely assembled and installed according to the instructions. A machine incorrectly assembled can cause serious injury.
2. **OBTAIN ADVICE** from your supervisor, instructor, or another qualified person if you are not thoroughly familiar with the operation of this machine. Knowledge is safety.
3. **FOLLOW ALL WIRING CODES** and recommended electrical connections to prevent shock or electrocution.
4. **NEVER TURN THE MACHINE "ON"** before clearing the table/work area of all objects (tools, scraps of wood, etc.). Flying debris is dangerous.
5. **NEVER TURN THE MACHINE "ON"** with the workpiece contacting the abrasive surface. Kickback can occur.
6. **SECURE THE MACHINE** to a supporting surface. Vibration can cause the machine to slide, walk, or tip over.
7. **COVER THE POWER TAKE-OFF SHAFT** when not using accessories. Unguarded rotating shafts can create an entanglement hazard which can result in injury.
8. **USE A DUST COLLECTION SYSTEM.** Some types of wood are known to cause disease or other health problems.
9. **CLEAN THE MACHINE** and dust collector thoroughly when processing different types of workpieces (wood, steel, or aluminum). Combining wood and metal dust can create an explosion or fire hazard. **DO NOT SAND OR POLISH MAGNESIUM.** Fire will result.
10. **PREVENT THE WORKPIECE** from contacting the sanding belt before starting the tool. Loss of control of the workpiece is dangerous.
11. **AVOID AWKWARD OPERATIONS AND HAND POSITIONS.** A sudden slip could cause a hand to move into the abrasive disc or belt.
12. **MAINTAIN A MAXIMUM CLEARANCE OF 1/16"** between the table and the abrasive disc. The workpiece could be drawn into the space between the abrasive disc and the table.
13. **SUPPORT THE WORKPIECE** firmly with a miter gauge, backstop, or work table when sanding with a belt. Hold the workpiece firmly. Loss of control of the workpiece can result in injury.
14. **AVOID KICKBACK** by sanding in accordance with the directional arrows. Feed the workpiece against the downward rotation side of the disc or the forward rotation of the belt. Loss of control of the workpiece can result in injury.
15. **DO NOT SAND** very small or very thin workpieces that cannot be safely controlled. Loss of control of the workpiece can result in injury.
16. **PROPERLY SUPPORT LONG OR WIDE WORKPIECES.** Loss of control of the workpiece is dangerous.
17. **NEVER PERFORM LAYOUT, ASSEMBLY, OR SET-UP WORK** on the table/work area when the machine is running. A sudden slip could cause a hand to move into the abrasive surface. Severe injury can result.
18. **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. Someone else might accidentally start the machine and cause injury to themselves.
19. **ADDITIONAL INFORMATION** regarding the safe and proper operation of power tools (i.e. a safety video) is available from the Power Tool Institute, 1300 Sumner Avenue, Cleveland, OH 44115-2851 (www.powertoolinstitute.com). 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 machine to the power line, make sure the switch (s) 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 machine.

⚠ DANGER DO NOT EXPOSE THE MACHINE TO RAIN OR OPERATE THE MACHINE IN DAMP LOCATIONS.

MOTOR SPECIFICATIONS

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

GROUNDING INSTRUCTIONS

⚠ DANGER 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.

⚠ DANGER IN ALL CASES, MAKE CERTAIN THAT THE RECEPTACLE IN QUESTION IS PROPERLY GROUNDED. IF YOU ARE NOT SURE HAVE A QUALIFIED ELECTRICIAN CHECK THE RECEPTACLE.

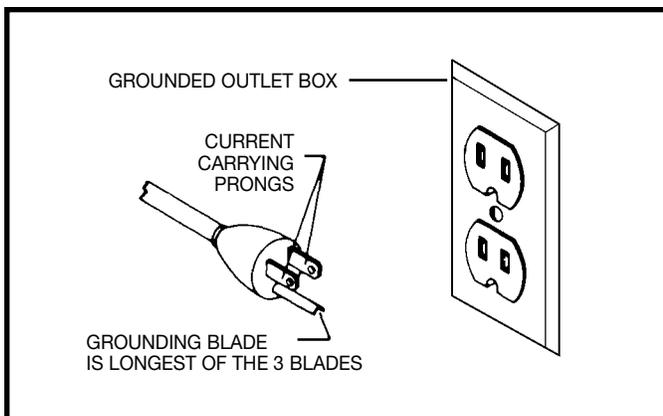


Fig. A

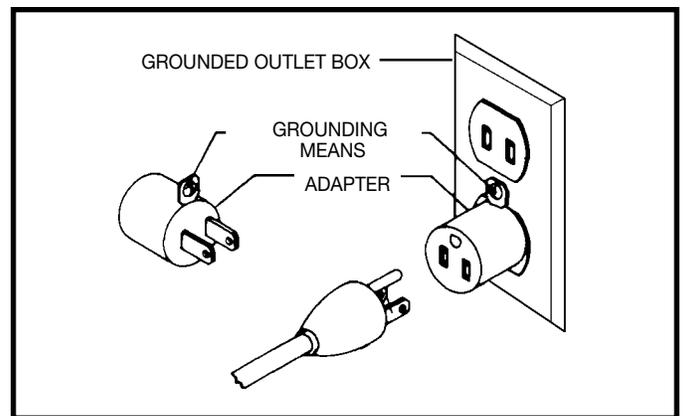


Fig. B

EXTENSION CORDS

CAUTION

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-1 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-1

FUNCTIONAL DESCRIPTION

FOREWORD

The Delta Model 31-695 features a large 9" diameter abrasive disc that is perfect for sanding large curves or rounding out sharp corners. The Delta Model 31-695 also features an adjustable 6" belt unit that can be operated vertically or horizontally or at any angle in between.

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 photograph on the manual cover illustrates the current production model. All other illustrations contained in the manual are representative only and may not depict the actual color, labeling, or accessories, and are intended to illustrate technique only.

CARTON CONTENTS

Your new Belt/Disc Sander and Stand is shipped complete in one container. Carefully unpack the sander, stand, and all loose items from the shipping container.

1. Sander with 6" x 48" Sanding Belt and Backstop
2. Sanding Disc Plate
3. Belt and Pulley Cover
4. 9" Sanding Disc
5. Plug
6. T-Wrench
7. Drive Belt
8. M6 x 55mm Hex Socket Head Screws (2)
9. M6.4 Flat Washer (2)
10. M6.4 Lockwasher (2)
11. Disc Cover
12. M4.2 x 13mm Panhead Screws (3)
13. Support Rod
14. Table Assembly

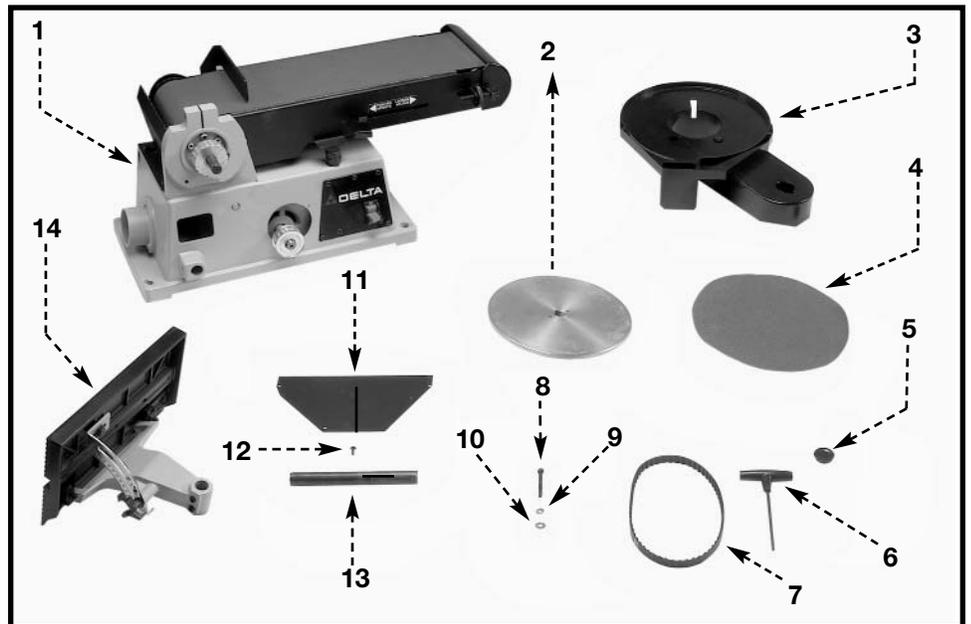


Fig. 2

- A Two Upper Front and Rear Braces
11-1/2" long
- B Two Lower Front and Rear Braces
17-1/8" long
- C Two Upper Side Braces
21-5/16" long
- D Two Lower Side Braces
26-5/8" long
- E Four Legs
27-1/2" long

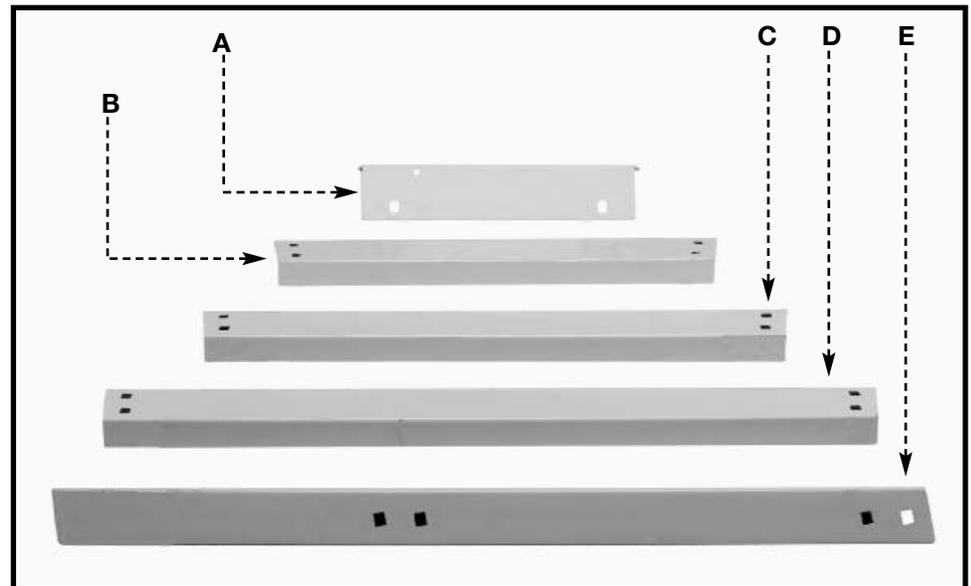
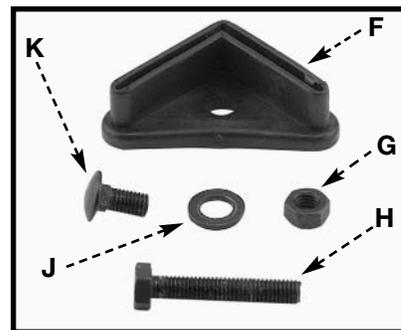


Fig. 3

- F Plastic Feet (4)
- G M8 Hex Nuts - (36)
- H M8 x 45mm Hex Head Screws (4)
- J 3/8" Flat Washers - (40)
- K M8 x 20mm Carriage Bolts - (32)



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.

STAND

IMPORTANT: Any letter designations that are stamped on the braces of the stand are for production purposes ONLY and are not used for assembling the stand. Follow the instructions in this manual.

Assembling this stand (Fig. 4) requires, in each instance, placing an M8x20mm carriage head bolt through a hole in the front of the leg, then through the corresponding hole in the brace. Place a 3/8" flat washer on the other end of the bolt, and loosely secure that connection with an M8 hex nut.

Attach the lower braces first.

When you attach the upper braces, place the short upper braces (A) Fig. 4 on top of the long upper braces (B).

Attach a plastic foot (C) Fig. 4 on the bottom of each leg.

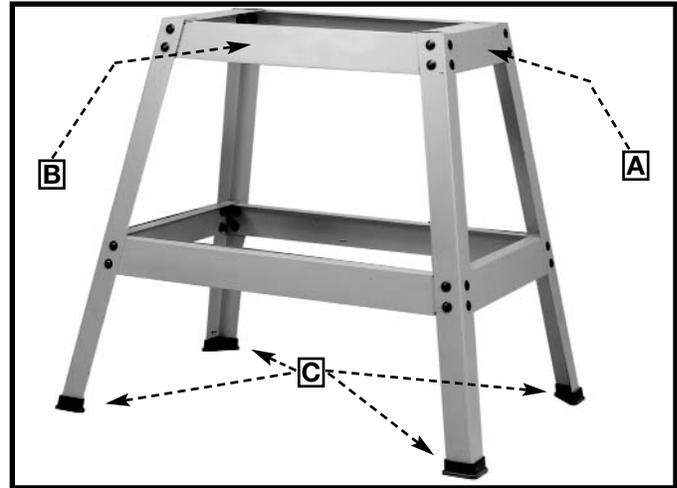


Fig. 4

MACHINE TO STAND

Carefully set the sander on the stand. Align the four holes on the top of stand (A) Fig. 5 with the four mounting holes on the base of sander (B). Place a 3/8" flat washer on an M8 x 45mm hex head screw (C). Insert the screw through the hole in the base of the machine (B) and stand (A). Place a 3/8" flat washer on the other end of the screw and thread an M8 hex nut on the screw. Tighten securely. Repeat this process for the three remaining holes.

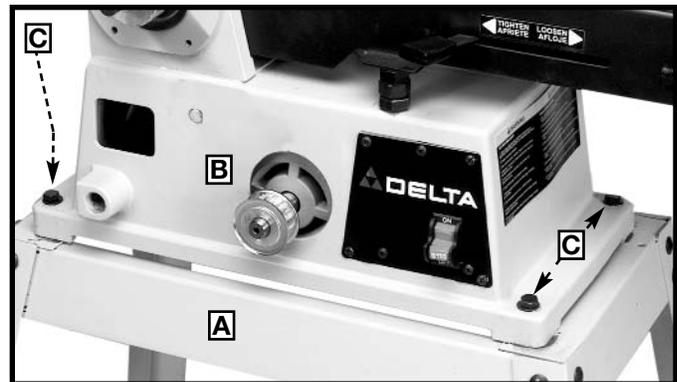


Fig. 5

DRIVE BELT/ ADJUSTING BELT TENSION

Use the supplied hex wrench (A) Fig. 6 to loosen the screw (B). Move the sanding arm (C) to the vertical position. Tighten the screw (B). Place the drive belt (D) on the pulleys.

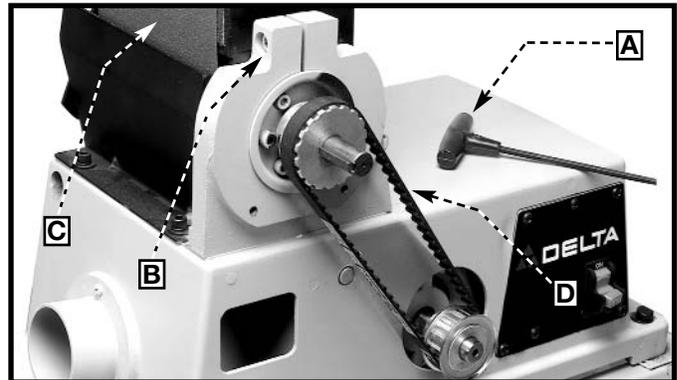


Fig. 6

NOTE: The drive belt (D) Fig. 7 should be firm, but not too tight on the pulleys (E and F) and should have approximately 1/4" to 1/2" deflection in the belt at the center (E and F) when using light finger pressure. The drive belt does not require excessive tension to function properly.

To adjust the belt tension, loosen the locknut (G) Fig. 7. Use the wrench (A) to tighten or loosen the adjustment screw (H). When the adjustment is correct, tighten the locknut (G). After the drive belt (D) Fig. 7 has proper tension, move the sanding arm to the horizontal position.

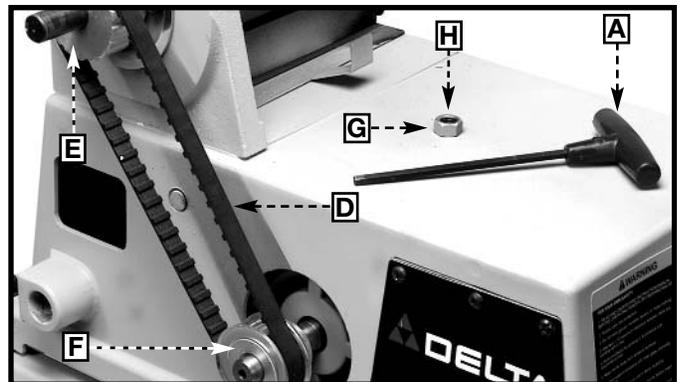


Fig. 7

BELT AND PULLEY GUARD

Place an M6.4 lockwasher and an M6.4 flat washer in that order on two M6 x 55mm hex socket head screws (B), and attach the belt and pulley guard (A) Fig. 8 to the machine. **NOTE:** Install the plug (C) in the guard.

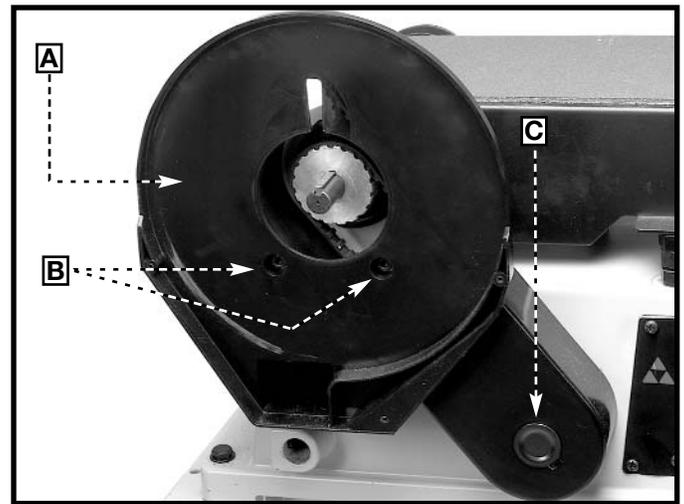


Fig. 8

SANDING DISC PLATE

1. Place the key (C) Fig. 9 into the keyway of the driveshaft and slide the sanding disc plate (A) Fig. 9 on the drive shaft until it is flush with the end of the drive shaft (Fig. 10).

NOTE: Do not allow the drive shaft (B) to extend past the plate surface.

2. Insert a hex wrench (E) Fig. 11 through the slot (F) in the back of belt and pulley guard (G). Tighten the set screw that holds the disc plate on the drive shaft.

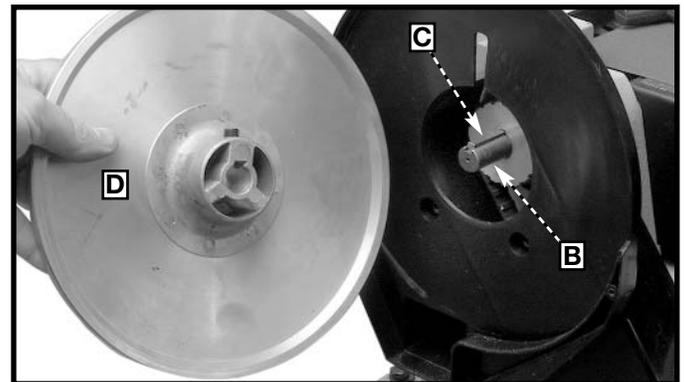


Fig. 9

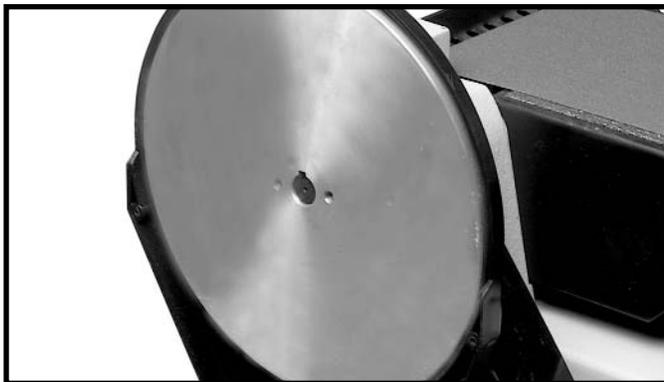


Fig. 10

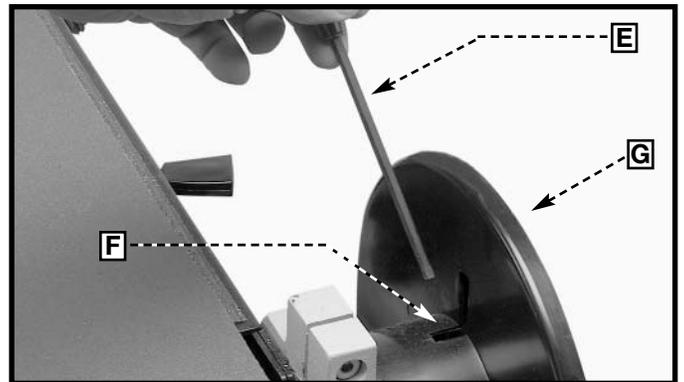


Fig. 11

SANDING DISC TO DISC PLATE

1. Clean the sanding disc plate (A) Fig. 12.
2. Peel the backing from the sanding disc (B) Fig. 12. Press the disc firmly into position on the sanding disc plate (A).

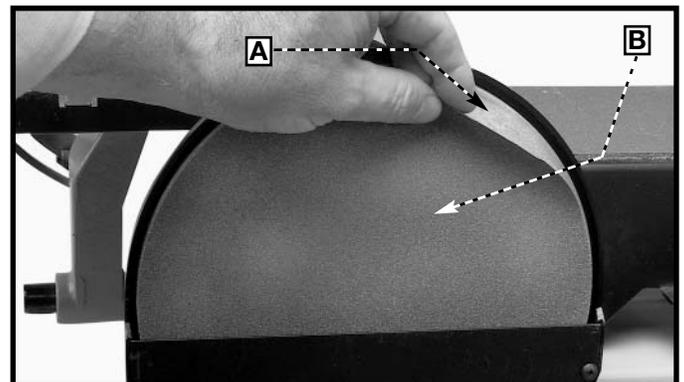


Fig. 12

LOWER COVER FOR SANDING DISC

Use three M4.2 x 13mm pan head screws (C) to attach the lower cover (A) Fig. 13 to the belt and pulley guard (B).

NOTE: Prevent the sanding disc from contacting the lower cover. Rotate the sanding disc by hand to ensure that no contact is made.

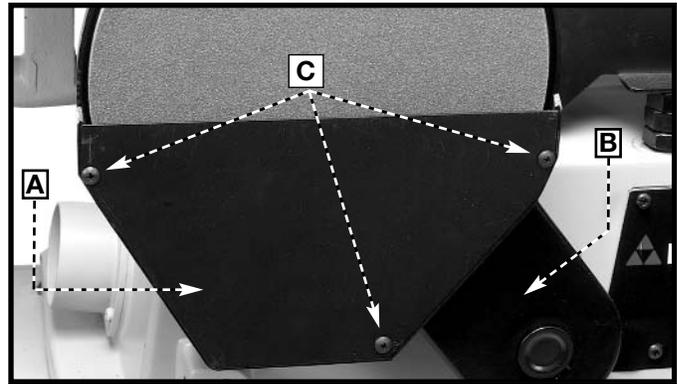


Fig. 13

SANDER TABLE

1. Insert the support rod (A) Fig. 14 into the hole in the side of the sander until the rod (A) extends approximately 5-1/2". Align the flat on the rod (A) with the screw (B). Tighten the screw with the hex wrench (C).

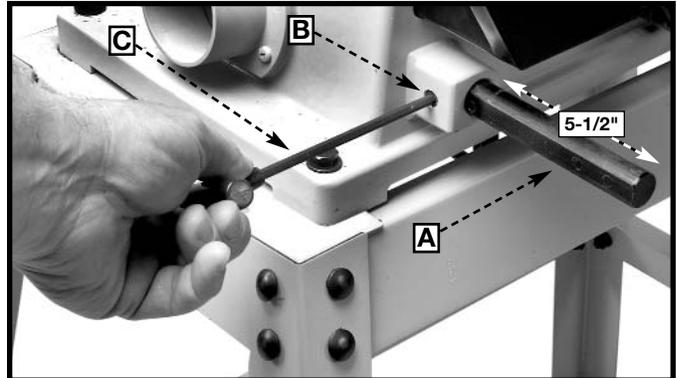


Fig. 14

2. Slide the table assembly (D) Fig. 15 on the rod (A). Align the flat on the rod (A) with the set screws (E). Tighten the screws to hold table assembly (D) in position.

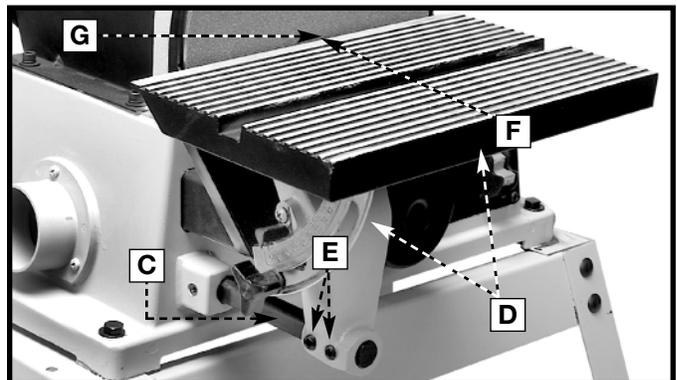


Fig. 15

⚠ WARNING

To avoid trapping the work or fingers between sanding disc and table, the table edge (F) Fig. 15 should be positioned a maximum of 1/16" away from sanding disc (G). Loosen screws (E) and adjust table accordingly.

OPERATING CONTROLS AND ADJUSTMENTS

STARTING AND STOPPING SANDER

The switch (A) Fig. 16 is located on the sander base. To turn the sander "ON", move the switch to the up position. To turn the sander "OFF", move the switch to the down position.

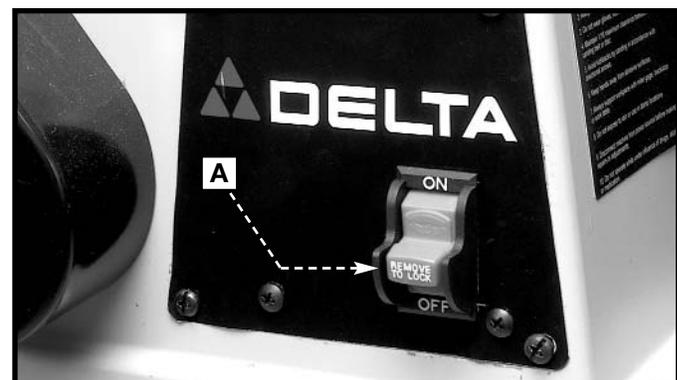


Fig. 16

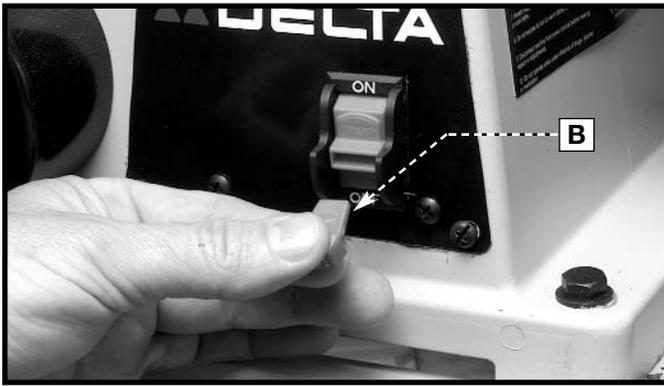


Fig. 17

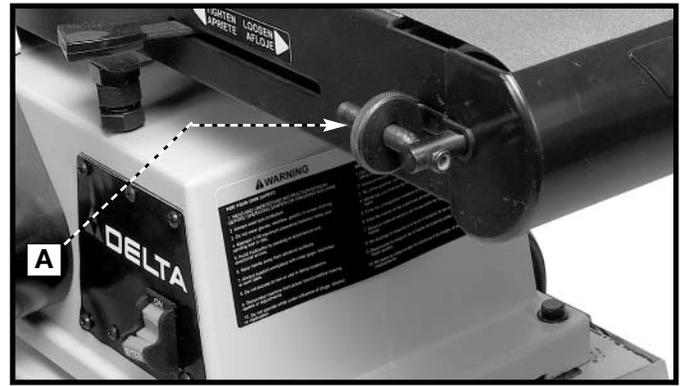


Fig. 18

LOCKING SWITCH IN THE “OFF” POSITION

⚠ WARNING 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. 20. With the switch toggle (B) removed, the switch will not operate. However, should the switch toggle be removed while the sander is running, it can be turned “OFF” once, but cannot be restarted without inserting the switch toggle (B).

TRACKING THE SANDING BELT

1. Turn the switch “ON” and “OFF” to see if the sanding belt tracks correctly. If the belt does not move to one side or the other and rides on the center of the sanding drums, the belt is tracking properly.
2. If the sanding belt moves toward the disc, turn the tracking knob (A) Fig. 18 counterclockwise 1/4 turn.
3. If the sanding belt moves away from the disc, turn the tracking knob (A) Fig. 18 clockwise 1/4 turn.
4. Turn the switch “ON” and “OFF” again to check the tracking. Adjust again, if necessary.

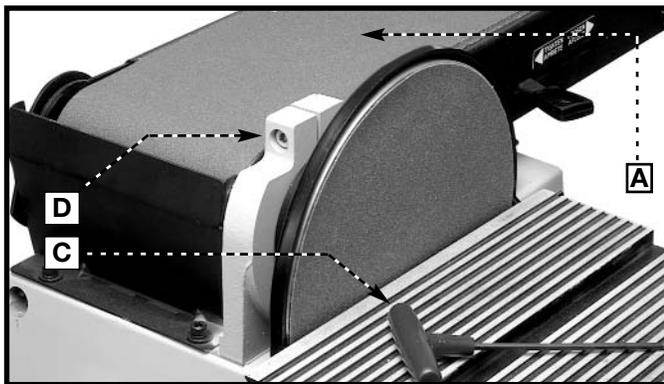


Fig. 19

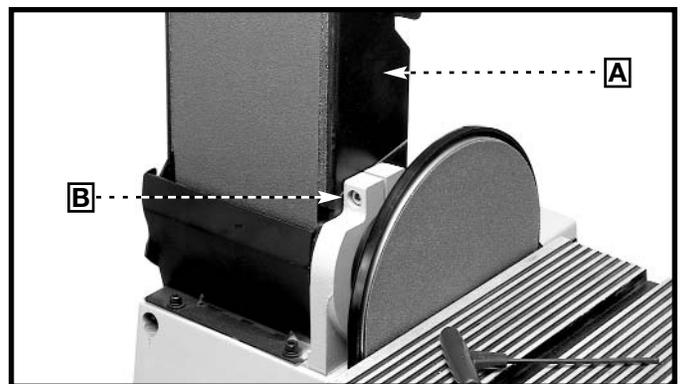


Fig. 20

CHANGING POSITION OF SANDING ARM

The sanding arm (A) Fig. 19 can be used in the horizontal position (Fig. 19), or in the vertical position (Fig. 20), or any angle in between. To change the position, loosen the screw (B) Fig. 20 with the hex wrench (C), move the arm (A) Fig. 20, to the desired location and tighten the screw (B).

ADJUSTING SANDING ARM STOP

A positive stop is provided to position the sanding arm level with the workbench when the arm is in the horizontal position.

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Place the sanding arm in the horizontal position.

- Place a level (A) on the sanding belt.
- To adjust, loosen the lock nut (B) Fig. 21, and turn the sanding arm stop (C) in or out until the sanding arm is level. After adjustment, tighten the lock nut (B).

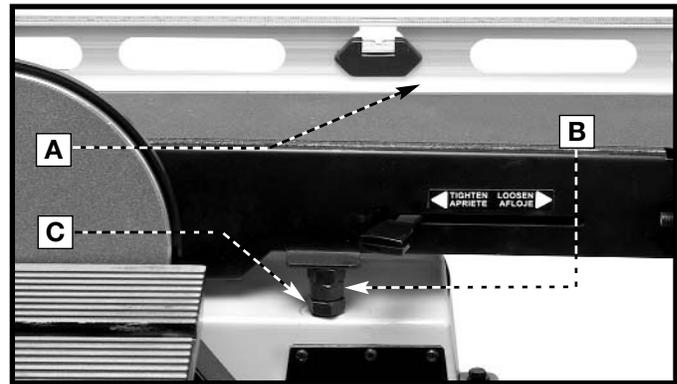


Fig. 21

ADJUSTING BACKSTOP SQUARE WITH SANDING BELT

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

- Before making this adjustment, check to see that the belt tension lever (A) Fig. 22 is all the way to the left in the “tighten” position.
- Place a square (B) Fig. 23 on the sanding belt with the end of the square against the backstop.
- If the backstop is not square with the sanding belt, loosen the two screws (C) Fig. 23, and adjust the backstop. After adjusting, tighten the screws (C).



Fig. 22

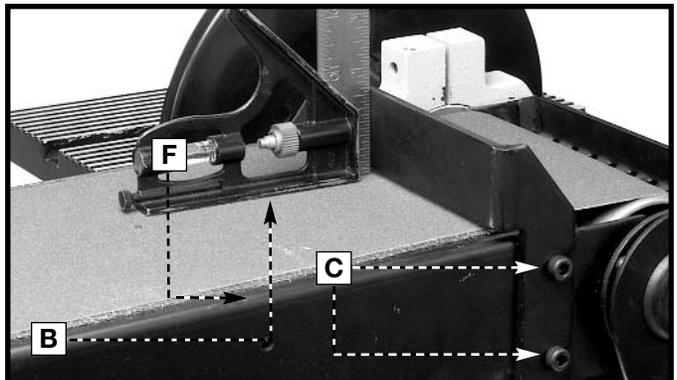


Fig. 23

TILTING THE TABLE

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

You can tilt the table 45 degrees by loosening the table lock knob (A) Fig. 24. Tighten the table lock knob after tilting the table. A scale (H) is provided with a pointer (G) to help you accurately tilt the table to the desired angle.

⚠ WARNING After tilting, the table assembly must be repositioned on the support rod (B) FIG. 24 to provide a maximum of 1/16" distance between the sanding disc (C), and the edge (D) of the table, to avoid trapping the workpiece or fingers between the disc and table. To reposition the table assembly, loosen two screws (E) and/or screw (F), move table assembly on rod (B), and tighten screws (E) and/or (F).

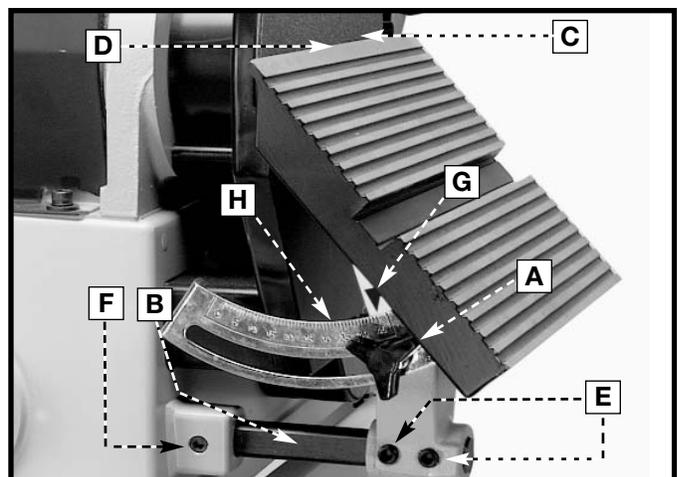


Fig. 24

SQUARING TABLE WITH SANDING DISC

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Place one end of a combination square (C) Fig. 25 on the table with the other end against the sanding disc.
2. If the table surface is not 90 degrees to the disc, loosen the table lock knob (A) Fig. 25, adjust the table, and tighten lock knob (A).
3. Adjust the pointer (B) Fig. 25 to the "0" degree mark on the angle scale.

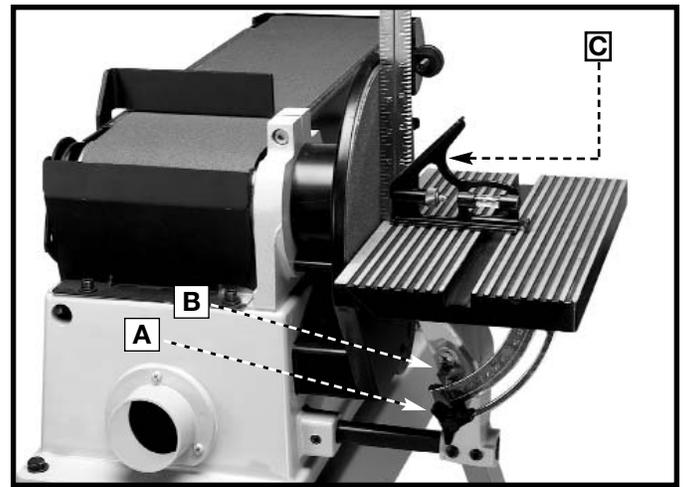


Fig. 25

ADJUSTING MITER GAUGE SLOT PARALLEL WITH SANDING DISC

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Place a combination square with the 90 degree angle side (A) in the miter gauge slot and the other end (B) against the sanding disc. Check the distance from the slot to each end of the sanding disc (Figs. 26 and 27). This distance should be the same.
2. To adjust, loosen the three screws (B) Fig. 28, adjust the table, and tighten three screws (B).

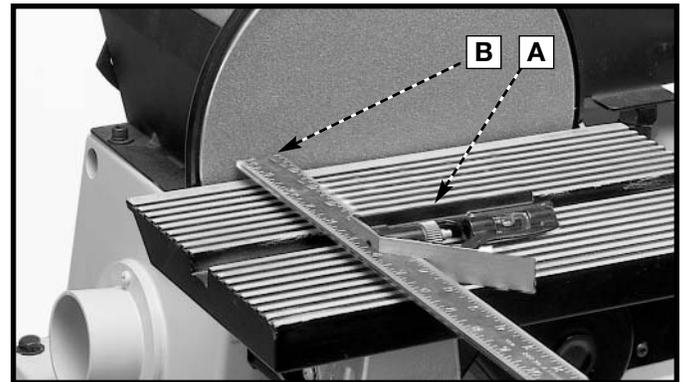


Fig. 26

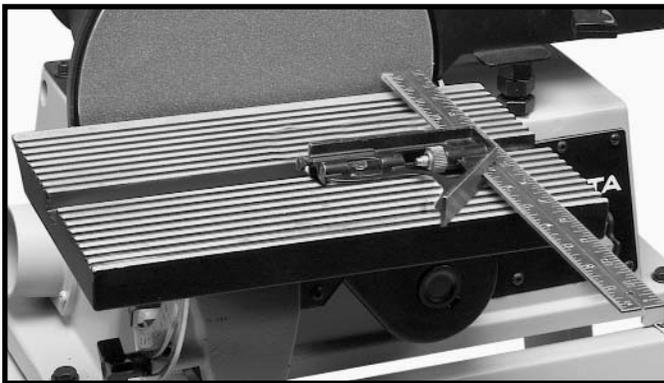


Fig. 27

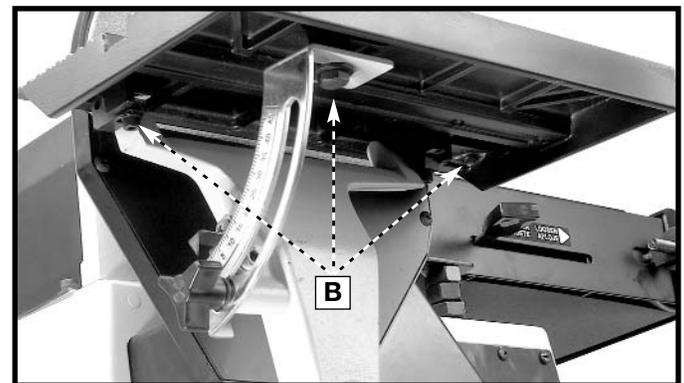


Fig. 28

ACCESSORY MITER GAUGE

An accessory miter gauge is available. The miter gauge body (A) Fig. 32 can be turned the right or left for angle or miter sanding. To change the angle, loosen the lock knob (B), rotate the miter gauge body, and tighten the lock knob (B).

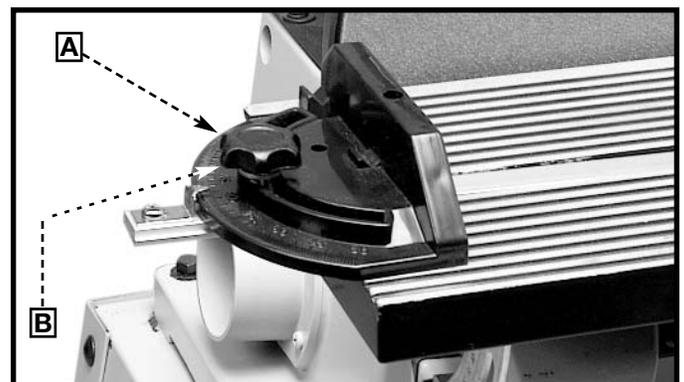


Fig. 29

USING TABLE ASSEMBLY WITH SANDING BELT

▲CAUTION Use the table assembly with the sanding belt in the vertical position **ONLY**.

To move the table assembly (B) Fig. 30 to the sanding arm (A):

1. Remove the backstop (C) Fig. 30.
2. Loosen the screw (D) Fig. 30 and carefully remove support bar (E) and table assembly (B) from the disc unit.

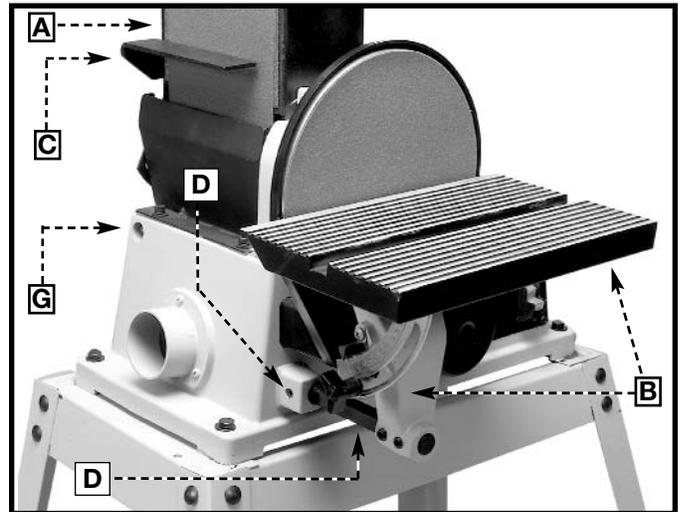


Fig. 30

3. Loosen the set screw (F) Fig. 31. insert the support bar (E) (with the table assembly (B) attached) in the hole (G) Figs. 30 & 31. Tighten the set screw (F).

▲WARNING The table edge must be positioned a maximum of 1/16" away from the sanding belt to avoid trapping the workpiece or fingers between the table and the sanding belt.

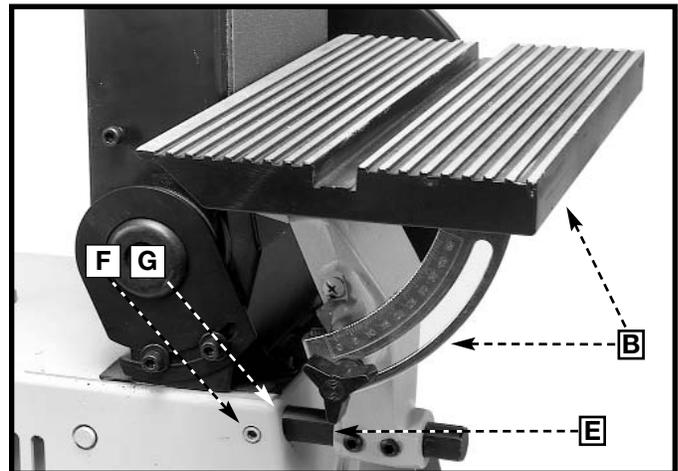


Fig. 31

DUST SPOUT

A dust spout (A) Fig. 32 is supplied with your sander and can easily be connected to a standard shop vacuum hose. The inside diameter opening of the dust spout (A) is 2-1/4".

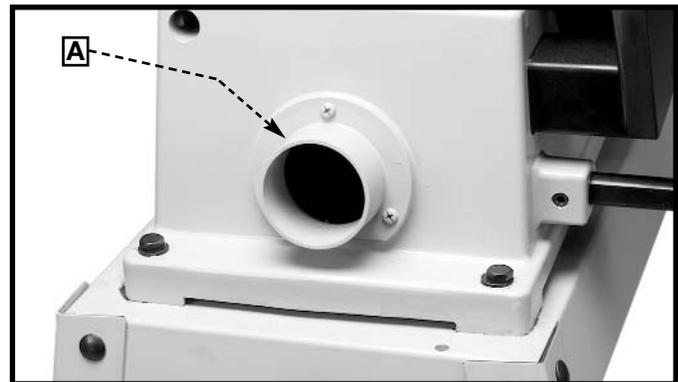


Fig. 32

ADJUSTING DUST SHIELD

This sander is equipped with a manually operated dust shield (A) Fig. 33 for use with a dust collection system. You must adjust the shield to suit your sanding operation.

1. If you are sanding with the disc, push in on the dust shield (A) Fig. 33.

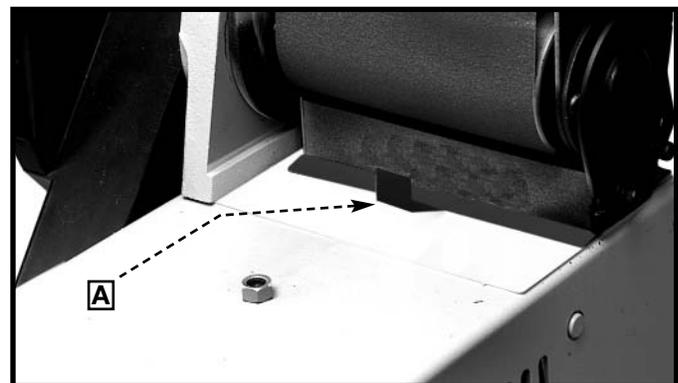


Fig. 33

- If you are sanding with the belt, pull the dust shield (A) Fig. 34 outward.

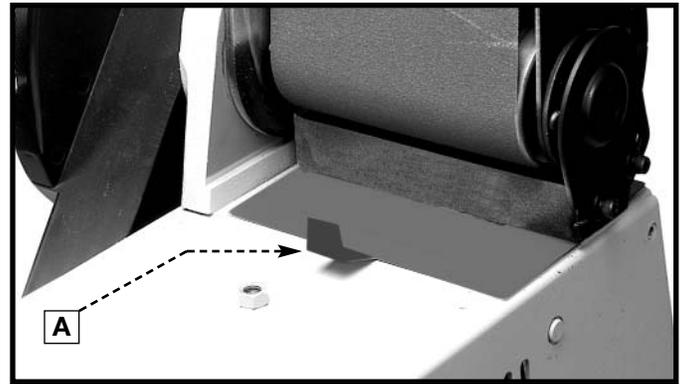


Fig. 34

WRENCH STORAGE

A hole is provided in the stand for storing the hex wrench (A) Fig. 35, supplied with the sander.

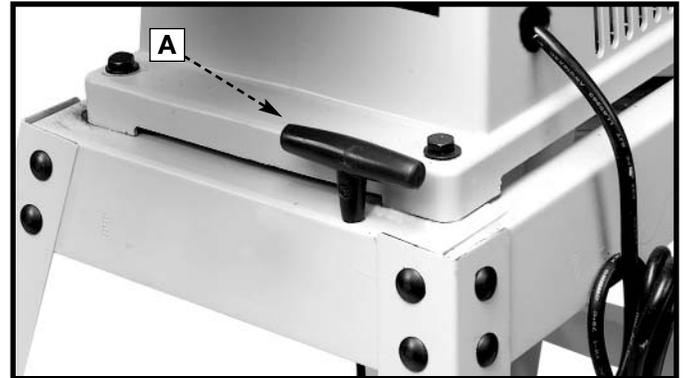


Fig. 35

REMOVING UPPER SANDING DRUM GUARD

You can remove the upper sanding drum guard (A) Fig. 36 to sand inside curved work or to change the belt. To remove:

- Pull outward on the guard (A).
- After the sanding operation is completed or the belt is changed, replace the guard (A) Fig. 36 on the two studs (B), one of which is shown.

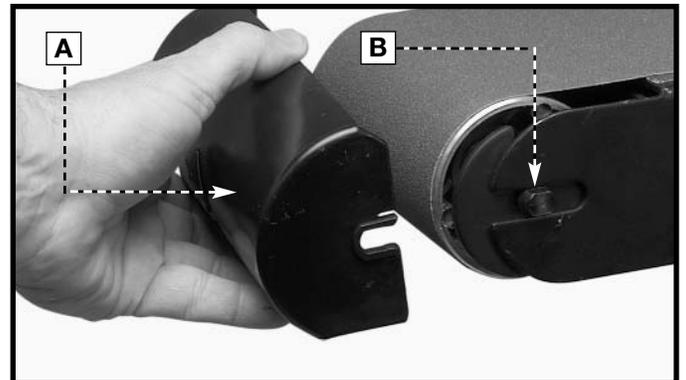


Fig. 36

REPLACING SANDING BELT

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

- Remove the upper sanding drum guard. Loosen the two screws (A) Fig. 37 and remove the backstop (B).
- Loosen the two screws (C) Fig. 37, and remove support bracket (D). Fig. 38 illustrates backstop and support bracket removed from the machine.

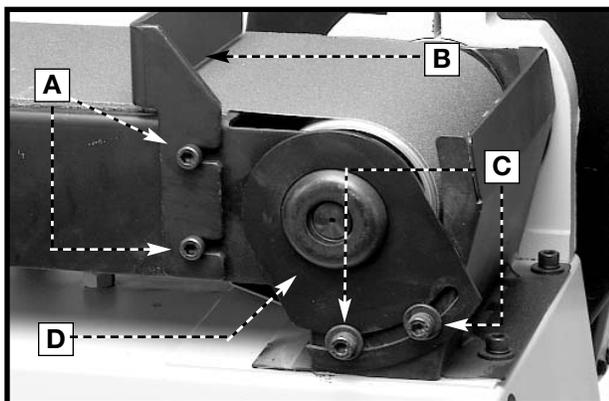


Fig. 37



Fig. 38

4. Move the tension lever (E) Fig. 39, to the right to the "LOOSEN" position (F). Remove the sanding belt (F) from both sanding drums.

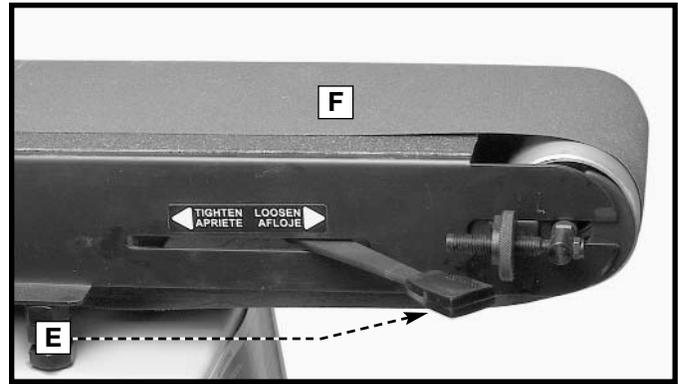


Fig. 39

5. Place a new 6" x 48" sanding belt (F) Fig. 40 over both sanding drums (G). Ensure that the belt will travel in the direction of the arrows printed on the inside of the belt.

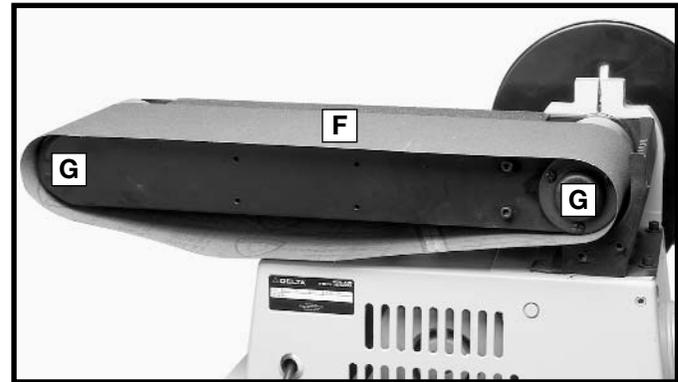


Fig. 40

6. Move the tension lever (E) Fig. 39 left to the "TIGHTEN" position.

7. Replace the support bracket, backstop and upper sanding drum guard, removed in **STEPS 1** and **2**.

8. Connect the electrical power to the sander. If the belt is not tracking properly, refer to section "**TRACKING THE SANDING BELT.**"

REPLACING SANDING DISC

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Loosen the screw (A) Fig. 41, and remove the table assembly (B).

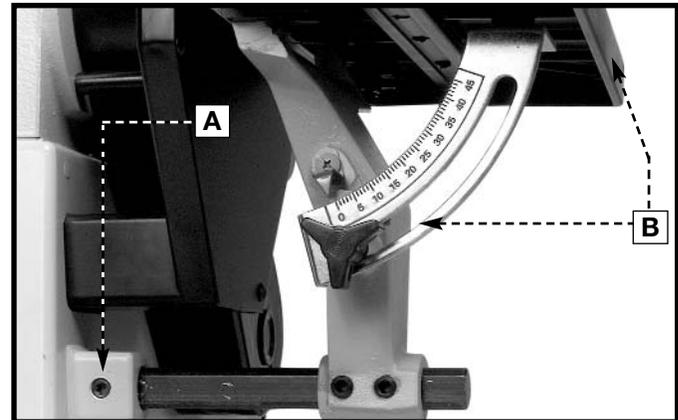


Fig. 41

2. Remove the three screws (C) Fig. 42 and lower the cover (D).

3. Peel off the old disc (E) Fig. 43.

4. Make sure the disc plate (F) Fig. 43 is clean. Peel the backing from a new sanding disc. Press the new sanding disc firmly into position on the disc plate (F). Replace the lower cover and table assembly, removed in **STEPS 1** and **2**.

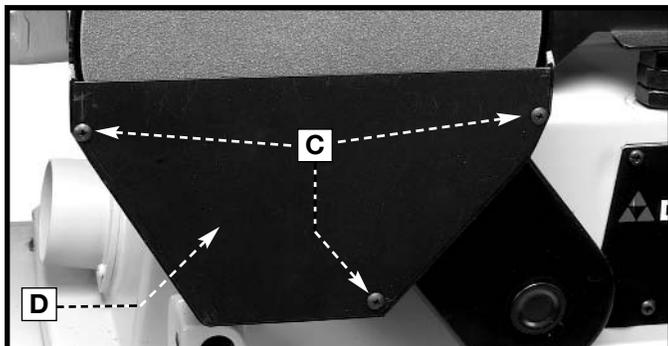


Fig. 42

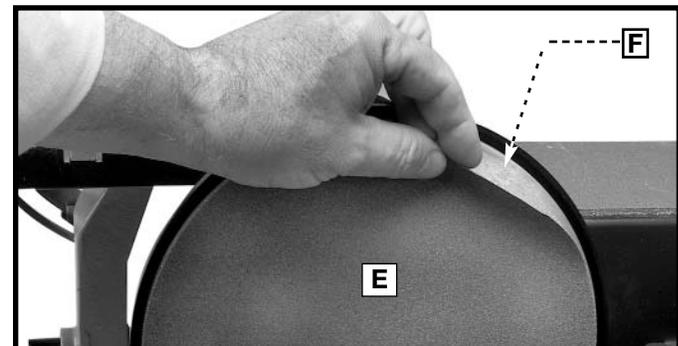


Fig. 43

OPERATING CONTROLS AND ADJUSTMENTS

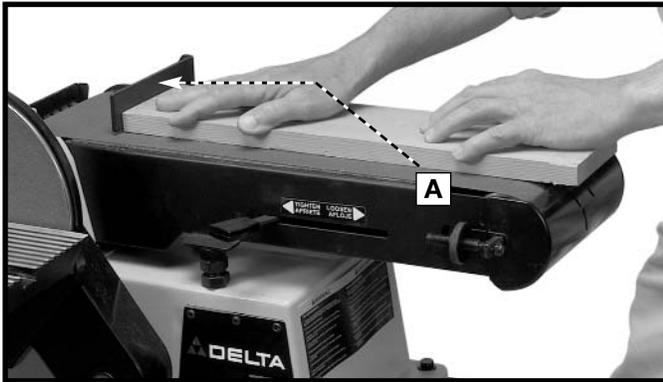


Fig. 44

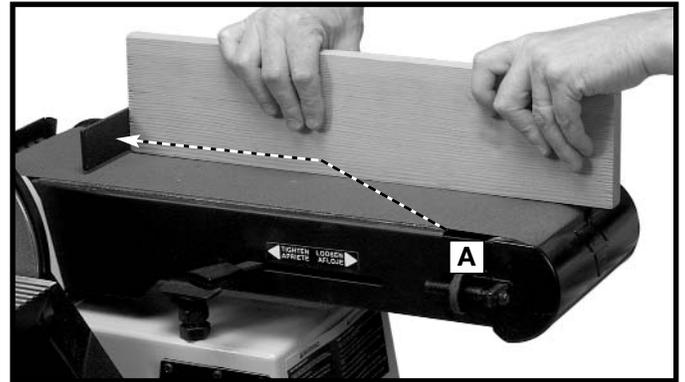


Fig. 45

SURFACING OR EDGE SANDING WITH SANDING BELT

When surfacing (Fig. 44) or edge sanding (Fig. 45), place the sanding arm in the horizontal position and use the backstop (A) Fig. 44 and Fig. 45 to keep the workpiece in place. Hold the workpiece firmly and keep your fingers away from the sanding belt. Place the end of the workpiece against the backstop and move the workpiece evenly across the sanding belt. Apply only enough pressure to allow the sanding belt to remove material. Use extra caution when sanding very thin pieces.

⚠ WARNING Position the edge of the backstop a maximum of 1/16" away from the sanding belt to avoid trapping the workpiece or your fingers between the backstop and the sanding belt.

SANDING INSIDE CURVES

You can sand inside curves on the top sanding drum (Fig. 46).

⚠ CAUTION Replace the sanding drum guard after the sanding operation is completed.



Fig. 46

SANDING OUTSIDE CURVES

Sand outside curves on the sanding disc as illustrated in Fig. 47.

⚠ WARNING Always sand on the left (downward) side of the sanding disc. Sanding on the right (upward) side of the sanding disc could cause the workpiece to fly up, which could be hazardous.

⚠ WARNING The edge of the table must be positioned a maximum of 1/16" away from the sanding disc to avoid trapping the workpiece or fingers between the table and sanding disc.



Fig. 47

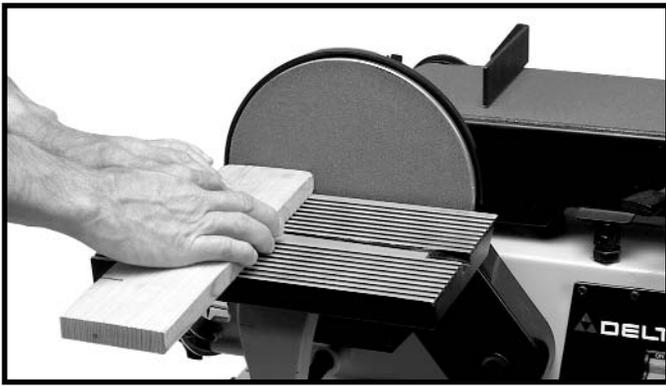


Fig. 48



Fig. 49

END SANDING WITH THE DISC

When sanding the ends of narrow workpieces, use the sanding disc and the accessory miter gauge (Fig. 48). Move the work from the center to the left side of the sanding disc.

⚠ WARNING Always sand on the left (downward) side of the sanding disc. Sanding on the right (upward) side of the sanding disc could cause the workpiece to fly up, which could be hazardous.

⚠ WARNING The edge of the table must be positioned a maximum of 1/16" away from the sanding disc to avoid trapping the work or fingers between the table and the sanding disc.

END SANDING WIDE WORKPIECES WITH THE BELT

When sanding the ends of wide workpieces, move the table assembly to the the sanding belt and use the sanding arm in the vertical position (Fig. 49). See sections titled "**CHANGING POSITION OF SANDING ARM**" and "**USING TABLE ASSEMBLY WITH SANDING BELT.**"

For more accurate work use the accessory miter gauge and move the work evenly across the sanding belt (Fig. 52).

⚠ WARNING Always sand on the left (downward) side of the sanding disc. Sanding on the right (upward) side of the sanding disc could cause the workpiece to fly up, which could be hazardous.

MAINTENANCE

KEEP MACHINE CLEAN

Periodically blow out all air passages with dry compressed air. All plastic parts should be cleaned with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material.

⚠ WARNING Wear ANSI Z87.1 safety glasses while using compressed air.

FAILURE TO START

Should your machine fail to start, check to make sure the prongs on the cord plug are making good contact in the outlet. Also, check for blown fuses or open circuit breakers in the line.

LUBRICATION

Apply household floor paste wax to the machine table and extension table or other work surface weekly.

PROTECTING CAST IRON FROM RUST

To clean and protect cast iron tables from rust, you will need the following materials: 1 pushblock from a jointer, 1 sheet of medium Scotch-Brite™ Blending Hand Pad, 1 can of WD-40®, 1 can of degreaser, 1 can of TopCote® Aerosol. Apply the WD-40 and polish the table surface with the Scotch-Brite pad using the pushblock as a holddown. Degrease the table, then apply the TopCote® accordingly.

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 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 New Product Warranty

Delta will repair or replace, at its expense and at its option, any new 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. For all refurbished Delta product, the warranty period is 180 days. 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.

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