

SETUP & OPERATION MANUAL

FEATURES & SPECIFICATIONS

- Steel frame and heavy duty base for greater stability.
- High quality conveyor belt for longer service life.
- Parallelism between the sanding drums and the conveyor belt is adjusted by convenient adjustment screw.
- Large hand wheel adjusts conveyor table height.
- Magnetic safety switch.
- Two (2) 4" dust outlets.
- Graduated depth scale in both inches and metric to indicate sanding thickness.
- Conveyor belt equipped with a safety switch with removable key.
- Dual v-belt driven sanding drums.
- Variable speed conveyor belt.

MAXIMUM SANDING WIDTH
24" (610 mm)

MAXIMUM SANDING THICKNESS
5" (127 mm)

MINIMUM SANDING THICKNESS
1/4" (6 mm)

MINIMUM SANDING LENGTH
5" (127 mm)

DRUM DIAMETER
5" (127 mm)

DRUM SPEED
1550 RPM

FEEDING SPEED
3 to 20 FPM (0.93 – 6.2 M/MIN) VARIABLE

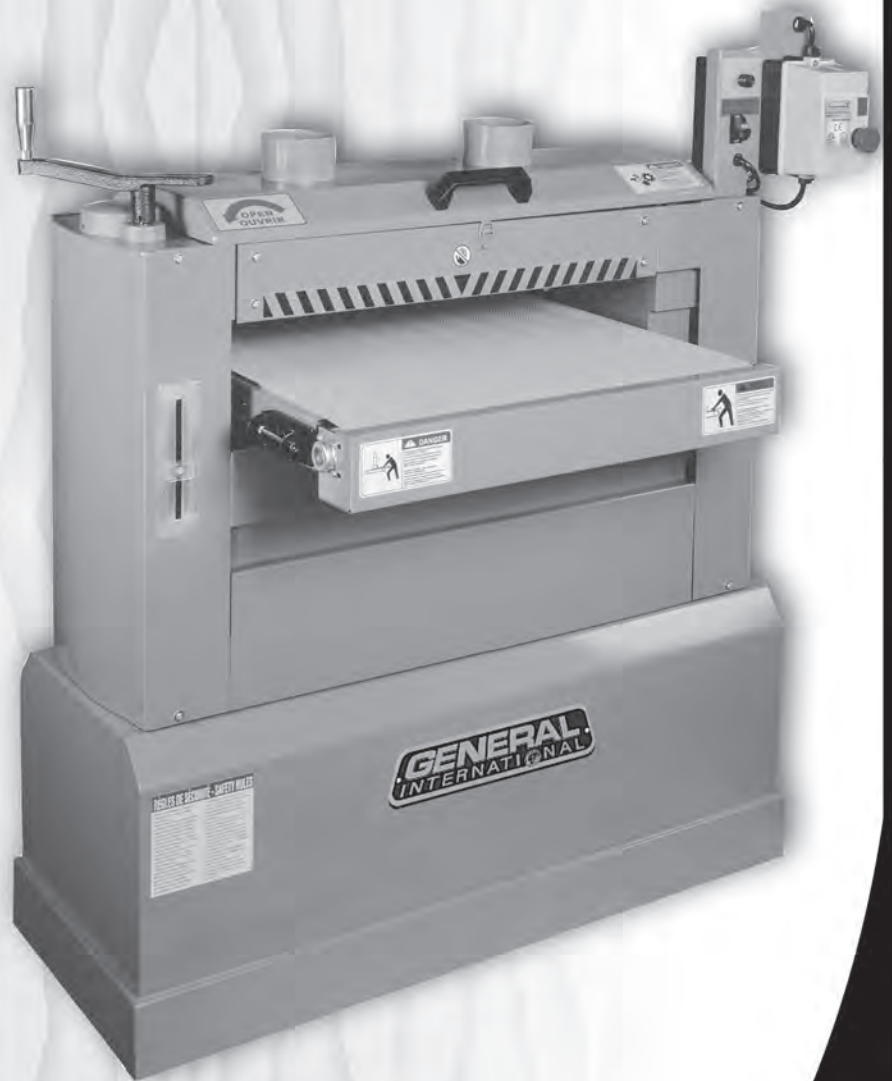
BASE DIMENSIONS (L X W)
42 1/2" x 16 1/2" (1079.5 x 419 mm)

MAIN MOTOR
3 HP, 220 V, 1 Ph, 15 A

CONVEYOR MOTOR
1/6 HP

WEIGHT
570 LBS (259 kg)

24" HORIZONTAL DOUBLE DRUM SANDER



MODEL #15-250 MI





GENERAL® INTERNATIONAL

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www.general.ca

THANK YOU for choosing this General® International model 15-250 M1 24" Horizontal Double Drum Sander. This machine has been carefully tested and inspected before shipment and if properly used and maintained, will provide you with years of reliable service. To ensure optimum performance and trouble-free operation, and to get the most from your investment, please take the time to read this manual before assembling, installing and operating the unit.

The manual's purpose is to familiarize you with the safe operation, basic function, and features of this horizontal double drum sander as well as the set-up, maintenance and identification of its parts and components. This manual is not intended as a substitute for formal woodworking instruction, nor to offer the user instruction in the craft of woodworking. If you are not sure about the safety of performing a certain operation or procedure, do not proceed until you can confirm, from knowledgeable and qualified sources, that it is safe to do so.

Once you've read through these instructions, keep this manual handy for future reference.

GENERAL® INTERNATIONAL WARRANTY

All component parts of General® International machinery are carefully tested and inspected during all stages of production, and each machine is thoroughly inspected upon completion of assembly. Because of our commitment to quality and customer satisfaction, General® International agrees to repair or replace, within a period of 24 months from date of purchase, any genuine part or parts which, upon examination, prove to be defective in workmanship or material. In order to obtain this warranty, all defective parts must be returned freight pre-paid to General® International Mfg. Co., Ltd. Repairs attempted without our written authorization will void this warranty.

Disclaimer: The information and specifications in this manual pertain to the unit as it was supplied from the factory at the time of printing. Because we are committed to making constant improvements, General® International reserves the right to make changes to components, parts or features of this unit as deemed necessary, without prior notice and without obligation to install any such changes on previously delivered units. Reasonable care is taken at the factory to ensure that the specifications and information in this manual corresponds with that

of the unit with which it was supplied. However, special orders and "after factory" modifications may render some or all information in this manual inapplicable to your machine. Further, as several generations of this 24" horizontal double drum sander and several versions of this manual may be in circulation, if you own an earlier or later version of this unit, this manual may not depict your machine exactly. If you have any doubts or questions contact your retailer or our support line with the model and serial number of your unit for clarification.

Rules for Safe Operation

To help ensure safe operation, please take a moment to learn the machine's applications and limitations, as well as potential hazards. General® International disclaims any real or implied warranty and hold itself harmless for any injury that may result from the improper use of its equipment.

1. Do not operate the sander when tired, distracted, or under the effects of drugs, alcohol or any medication that impairs reflexes or alertness.
2. The working area should be well lit, clean and free of debris.
3. Keep children and visitors at a safe distance when the sander is in operation; do not permit them to operate the sander.
4. Childproof and tamper proof your shop and all machinery with locks, master electrical switches and switch keys, to prevent unauthorized or unsupervised use.
5. Stay alert! Give your work your undivided attention. Even a momentary distraction can lead to serious injury.
6. Fine particulate dust is a carcinogen that can be hazardous to health. Work in a well-ventilated area and whenever possible use a dust collector and wear eye, ear and respiratory protection devices.
7. Do not wear loose clothing, gloves, bracelets, necklaces or other jewelry while the sander is in operation.
8. Be sure that adjusting wrenches, tools, drinks and other clutter are removed from the machine and/or the feed table surface before operating.
9. Keep hands well away from the sanding drums and all moving parts. Use a brush, not hands, to clear away sanding dust.
10. Be sure sanding belts are securely installed on the sanding drums.
11. Do not operate the sander if the sanding belts are damaged or badly worn.
12. Do not push or force the workpiece into the sander. The machine will perform better and more safely when working at the feed rate for which it was designed.
13. Avoid working from awkward or off balance positions. Do not overreach and keep both feet on floor.
14. Keep guards in place and in working order. If a guard must be removed for maintenance or cleaning, be sure it is properly re-attached before using the tool again.
15. Never leave the machine unattended while it is running or with the power on.
16. Use of parts and accessories NOT recommended by General® International may result in equipment malfunction or risk of injury.
17. Never stand on the machine. Serious injury could occur if the sander is tipped over or if the sanding drums are unintentionally contacted.
18. Always disconnect the tool from the power source before servicing, changing accessories or sanding belts, or before performing any maintenance or cleaning, or if the machine will be left unattended.
19. Make sure that switch is in "OFF" position before plugging in the power cord.
20. Make sure the tool is properly grounded. If equipped with a 3-prong plug it should be used with a three-pole receptacle. Never remove the third prong.
21. Do not use this sander for other than its intended use. If used for other purposes, General® International disclaims any real implied warranty and holds itself harmless for any injury, which may result from that use.

ELECTRICAL REQUIREMENTS



Before connecting the machine to the power source, verify that the voltage of your power supply corresponds with the voltage specified on the I.D. nameplate located on the back of the machine. A power source with greater voltage than needed can result in serious injury to the user as well as damage to the machine. If in doubt, contact a qualified electrician before connecting to the power source.

This tool is for indoor use only. Do not expose to rain or use in wet or damp locations.

GROUNDING INSTRUCTIONS

In the event of an electrical malfunction or short circuit, grounding reduces the risk of electric shock to the operator. The motor of this machine is wired for 220V single phase operation and is equipped with a 3-conductor cord and a 3-prong grounded plug to fit a matching grounded type receptacle. (Fig. 1).

DO NOT MODIFY THE PLUG PROVIDED

If it will not fit your receptacle, have the proper receptacle installed by a qualified electrician.

Check with a qualified electrician or service person if you do not completely understand these grounding instructions, or if you are not sure the tool is properly grounded.

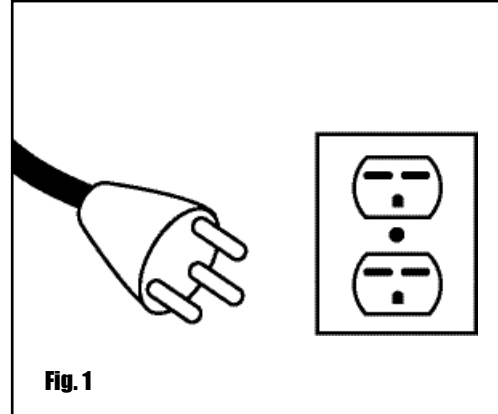


Fig. 1

CIRCUIT CAPACITY

Make sure that the wires in your circuit are capable of handling the amperage draw from your machine, as well as any other machines that could be operating on the same circuit. If you are unsure, consult a qualified electrician. If the circuit breaker trips or the fuse blows regularly, your machine may be operating on a circuit that is close to its amperage draw capacity. However, if an unusual amperage draw does not exist and a power failure still occurs, contact a qualified technician or our service department.

EXTENSION CORDS

The use of an extension cord is not generally recommended for 220V. If you find it necessary, use only 3-wire extension cords that have 3-prong grounding plug and a matching 3-pole receptacle that accepts the tool's plug. Repair or replace a damaged extension cord or plug immediately.

If you find it necessary to use an extension cord with your machine make sure the cord rating is suitable for the amperage listed on the motor I.D. plate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The accompanying chart shows the correct size extension cord to be used based on cord length and motor I.D. plate amp rating. If in doubt, use the next heavier gauge. The smaller the number, the heavier the gauge.

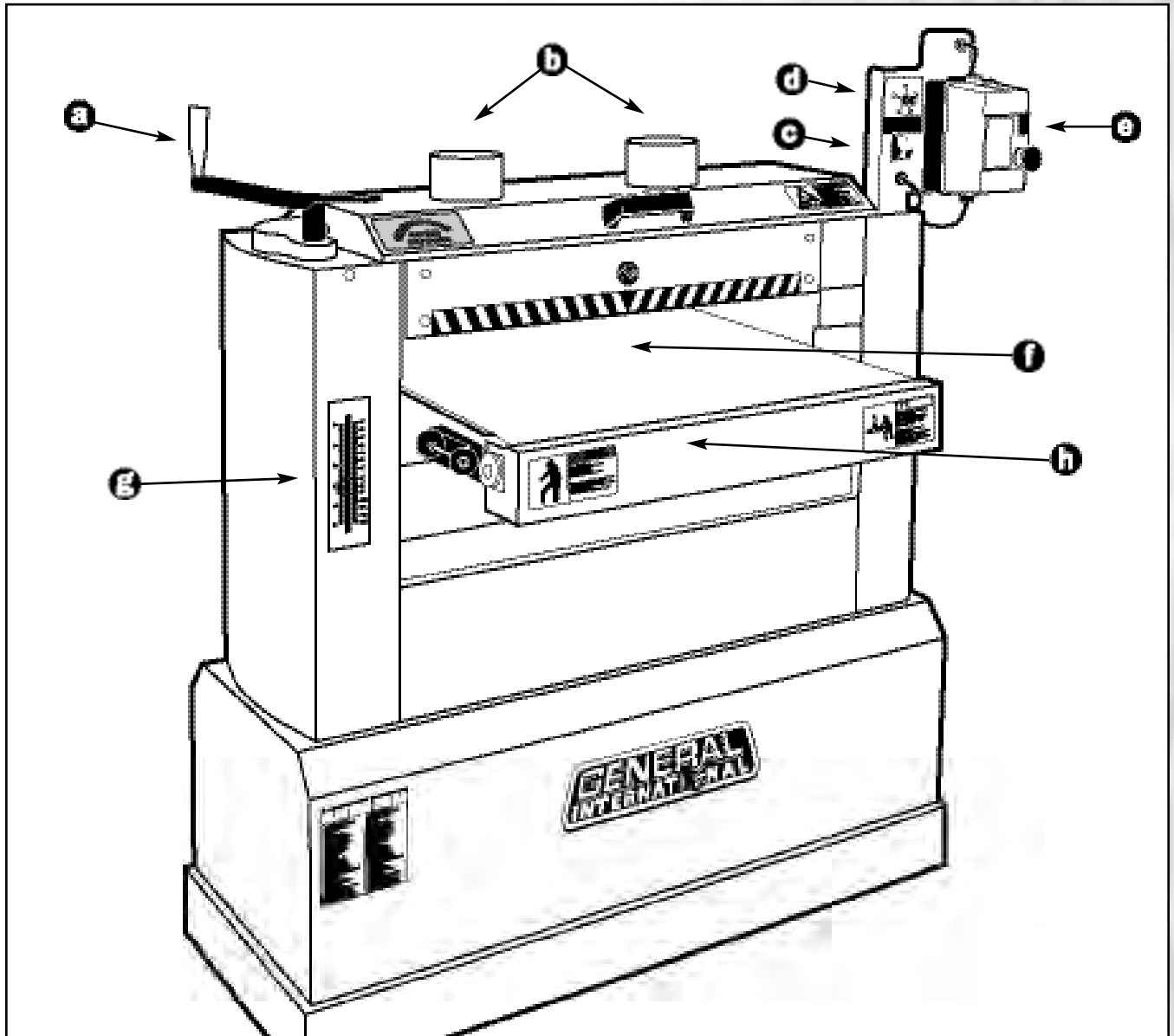
TABLE - MINIMUM GAUGE FOR CORD

AMPERE RATING		VOLTS	TOTAL LENGTH OF CORD IN FEET			
			25 ft.	50 ft.	100 ft.	150 ft.
MORE THAN	NOT MORE THAN	110 V	50 ft.	100 ft.	200 ft.	300 ft.
		220 V	50 ft.	100 ft.	200 ft.	300 ft.
		AWG				
0	6	→	18	16	16	14
6	10	→	18	16	14	12
10	12	→	16	16	14	12
12	16	→	14	12	-	-



24" HORIZONTAL DOUBLE DRUM SANDER 15-250 M1

IDENTIFICATION OF MAIN PARTS AND COMPONENTS



- a** CRANK HANDLE
- b** DUST OUTLETS
- c** CONVEYOR MOTOR START/STOP SWITCH WITH SAFETY KEY
- d** CONVEYOR BELT SPEED ADJUSTING KNOB
- e** SANDING DRUM MOTOR MAGNETIC POWER SWITCH
- f** CONVEYOR BELT
- g** DEPTH GAUGE
- h** CONVEYOR TABLE

UNPACKING

Carefully unpack and remove the unit and its components from its shipping container and check for missing or damaged items as per the list of contents below.

NOTE: Please report any damaged or missing items to your GENERAL® INTERNATIONAL distributor immediately.

LIST OF CONTENTS

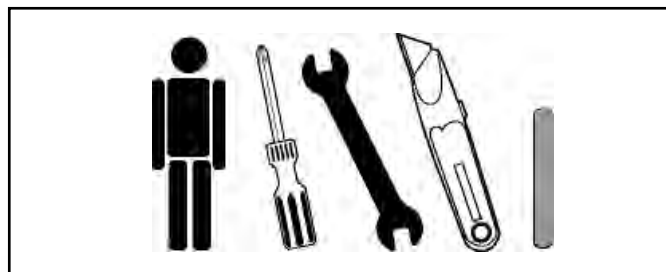
Once the parts have been removed from the packing, you should have the following items:

	<u>QTY</u>
a 24" HORIZONTAL DOUBLE DRUM SANDER	1
b HARDWARE BAG (from left to right)	
— HANDLE KNOB	1
— CRANK HANDLE	1
— 5 MM ALLEN KEY	1
— 6 MM T-HANDLE ALLEN WRENCH	1
— 2 MM T-HANDLE ALLEN WRENCH	1
— 12-14 MM COMBINATION WRENCH	1



ADDITIONAL REQUIREMENTS FOR SET UP

- Extra person for help with lifting
- Phillips Screwdriver
- 10 mm open end wrench
- Utility knife
- Flat piece of wood or any similar non-cutting object



PLACEMENT WITHIN THE SHOP / ESTABLISHING A SAFETY ZONE



This sander is heavy. Do not over-exert. The help of an assistant will be needed for the following step.

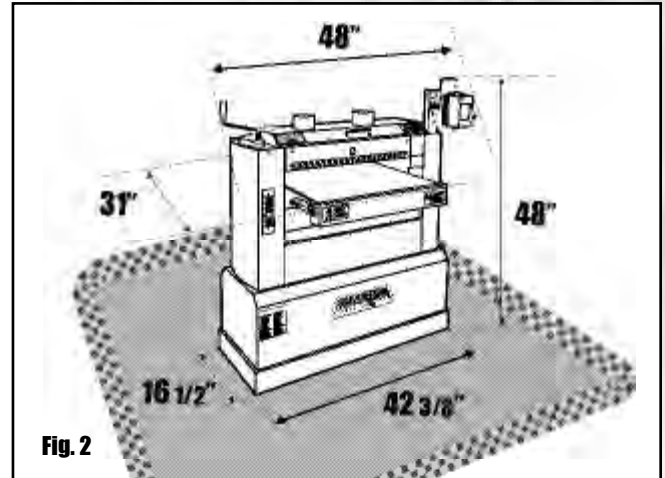
To limit the risk of serious injury or damage to the machine, any equipment used to lift this machine (forklift or lifting hook) should have a rated capacity in excess of 570 lbs (259 kg).

PLACEMENT WITHIN THE SHOP

This machine should be installed and operated only on a solid, flat and stable floor that is able to support the weight of the sander (570 lbs/259 kg) and the operator. Using the dimensions shown in Fig. 2 as a guideline, plan for placement within your shop that will allow the operator to work unencumbered and unobstructed by foot traffic (either passing shop visitors or other shop workers) or other tools or machinery.

ESTABLISHING A SAFETY ZONE

For shops with frequent visitors or multiple operators, it is advisable to establish a Safety Zone around shop machinery. A clearly defined “no-go” zone on the floor around each machine can help avoid accidents that could cause injury to either the operator or the shop visitor. It is advisable to take a few moments to either paint (using non-slip paint) or using tape, define on the floor the limits or perimeter of each machines safety zone. Take steps to ensure that all operators and shop visitors are aware that these areas are off limits whenever a machine is running for everyone but the individual operating the unit.



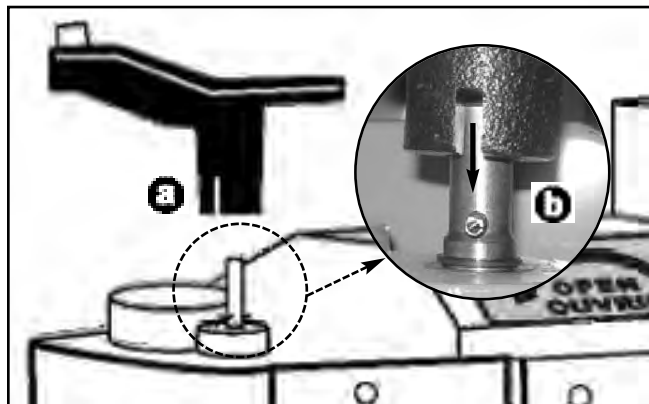
ASSEMBLY INSTRUCTIONS

For your convenience this sander is shipped from the factory partially assembled and requires only minimal assembly and set up before being put into service.

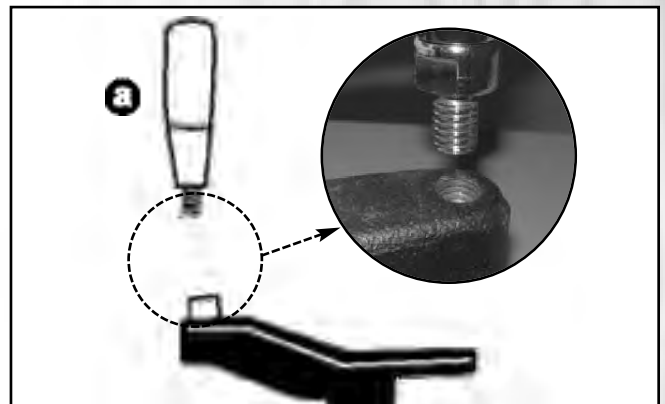


Do not plug in or turn on the sander until you have completed the installation and assembly steps described in this section of the manual.

INSTALL THE CONVEYOR TABLE ELEVATION CRANK HANDLE

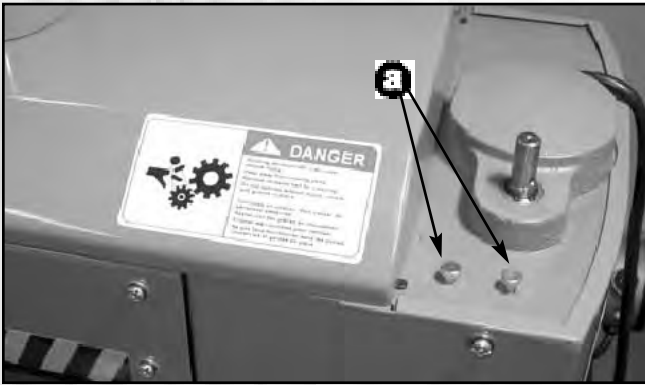


1. Install the conveyor table adjustment crank handle, **a**, on the shaft located on the top left end of the sander. The slots in the crank handle must be aligned with the spring pin on the shaft, **b**.

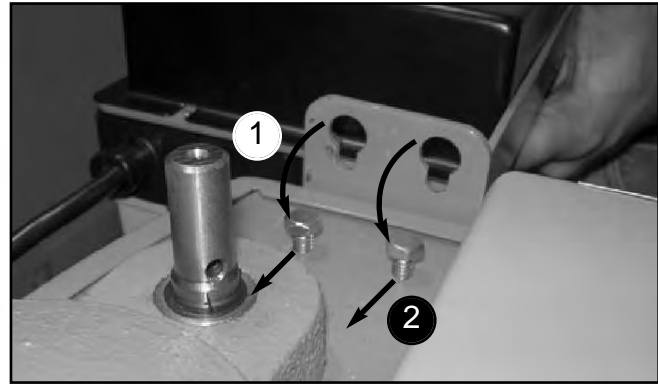


2. Screw the knob, **a**, into the threaded hole in the crank handle.

INSTALL THE CONTROL BOX



1. Loosen, but do not remove, the 2 hex bolts, 1, installed on the top right hand corner of the machine.



2. Slide the control box onto the heads of the bolts.



3. Tighten the bolts to secure the control box in place, with a 10 mm open end wrench, 3.

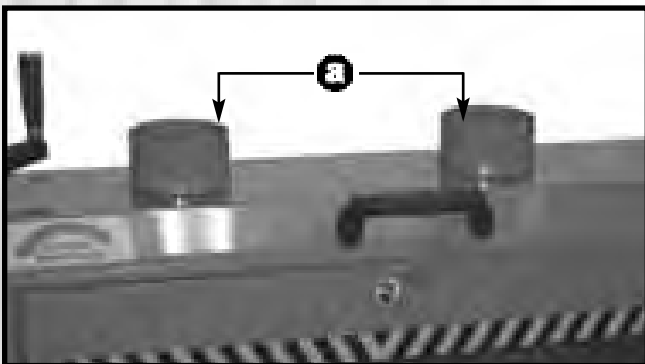


Do not plug in the power cord yet.

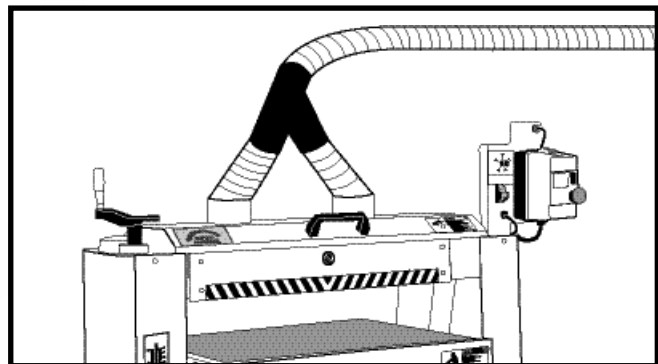
CONNECTING TO A DUST COLLECTOR



Do not operate this sander without an adequate dust collection system properly installed and running. Operating this sander without adequate dust collection can lead to equipment malfunction or dangerous situations for the operator or other individuals in the workshop.



The 24" horizontal double drum sander is equipped with two 4" diameter dust outlets, 4, on top of the machine, allowing for the connection to a dust collector (not included).



Be sure to use appropriate sized hose and fittings (not included) and check that all connections are sealed tightly to help minimize airborne dust.

Note: Recommended dust collection CFM requirements for this sander is 1200 CFM (or 2HP dust collector).

If you do not already own a dust collection system consider contacting your General® International distributor for information on our complete line of dust collection systems and accessories or visit our Web Site at: www.general.ca.

BASIC FUNCTIONS OF THE UNIT

This 24" horizontal double drum sander is designed for surface sanding of wooden cabinet doors, flat wooden panels, wide glue-ups and other natural wood products only. This sander is not intended (and should not be used) to sand any material other than wood.

The main time saving feature of this unit is that it allows for sanding at 2 successive grits in one single pass. Use a rougher (lower numbered) grit sandpaper on the front drum and a finer (higher numbered) grit sandpaper on the rear drum.

Selecting the right combination of grits to use on each drum will depend on experience, personal preference and the finish requirements of the work. Keep in mind that normal sanding principals apply and that each successive grit further smoothens the surface and removes the scratch marks left by the previous grit. For ideal results never install a grit on the rear drum that is too high a jump up (no more than 2 grits higher) from the grit installed on the front drum. As an example, if a 100 grit paper is installed on the front drum, then either a 120 or 150 would be suitable for the rear drum.



BASIC PRINCIPLES OF SANDING

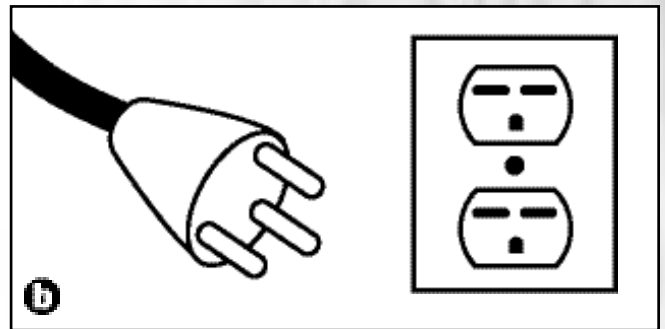
It is always preferable to remove less material per pass and take multiple passes. This can extend sanding belt life, place less strain on the motor and provide better workpiece finish quality.

Note: As with any other drum or belt sander, depending on the final finish quality you require, some final hand sanding may be required.

BASIC ADJUSTMENTS AND CONTROLS

CONNECTING TO A POWER SOURCE

 <p>SWITCHES OFF</p>	 <p>To avoid risk of shock or fire do not operate the unit with a damaged power cord or plug. Replace damaged cord or plug immediately.</p> <p>To avoid unexpected or unintentional start-up, make sure that both of the power switches on the sander are in the OFF position before connecting to a power source.</p>
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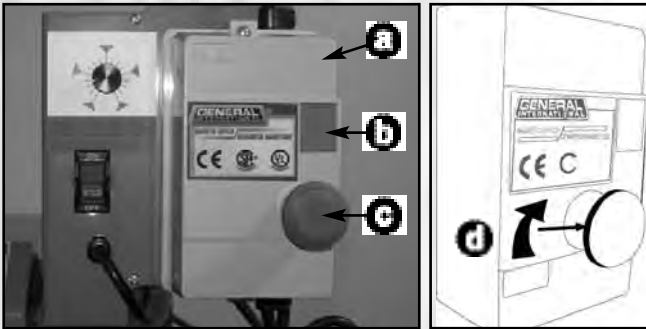


Once the assembly steps have been completed, uncoil the power cord, **a**, and plug it into an appropriate outlet, **b**, (refer back to the section entitled "Electrical Requirements" and make sure all requirements and grounding instructions are followed).

ON/OFF POWER SWITCHES

This sander is equipped with 2 different ON/OFF power switches: one magnetic switch for the drums motor and one switch with a safety key for the conveyor motor.

DRUM MOTOR MAGNETIC SWITCH

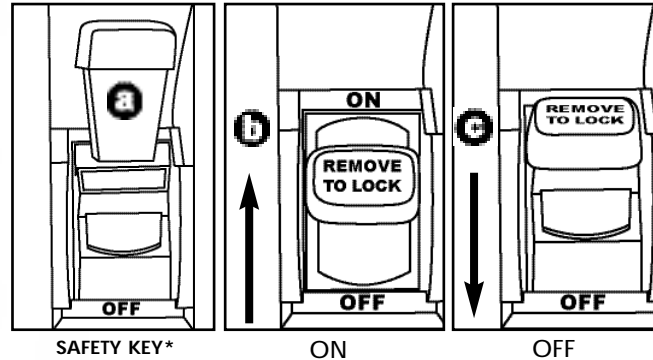


This model 15-250 M1 drum sander is equipped with a MAGNETIC SAFETY SWITCH, **a**, located on the control box, designed to protect the unit and the user from power surges, power outages and unwanted or unintentional start-up.

The switch assembly is equipped with a GREEN "START" button, **b**, and a RED spring loaded "STOP" button, **c**.

Once the RED "STOP" button has been pressed, the machine can only be started by turning the BLACK inner part of the button to the right to release the stop button, **d**.

CONVEYOR MOTOR SWITCH WITH SAFETY KEY



SAFETY KEY*

ON

OFF

* PREVENTS START-UP WHEN REMOVED

This model 15-250 M1 is also equipped with a simple ON/OFF switch for the conveyor motor, featuring a removable lock out safety key.

To start the conveyor belt, insert the safety key, **a**, and lift the switch up, **b**. To stop the machine, pull the switch down, **c**.

To prevent unauthorized use or unintentional start-up, remove the safety key and store it in a safe place whenever the sander is not in use.



Remove the switch key and store it in a safe place, out of the reach of children, whenever the sander is not in use.

OVERLOAD PROTECTION

The magnetic safety switch on this sander is equipped with an overload protection feature. To prevent an electrical overload from damaging the motor, in the event of a spike in line voltage or amperage draw, the internal overload protector will automatically be tripped, thereby cutting off power to the motor.

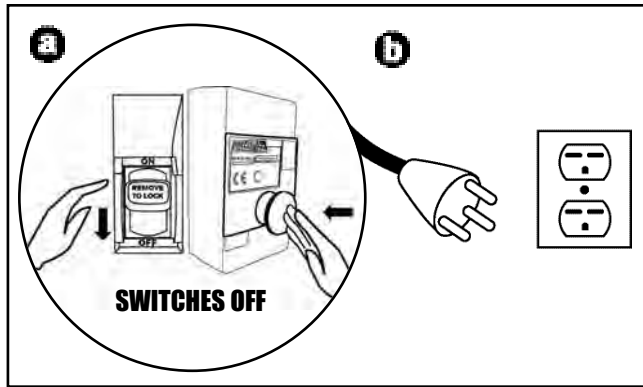
Note: The most common causes of such overloads are:

- 1. Overworking the motor by attempting to remove too much material in a single pass, thereby causing an increase in power consumption and a spike in amperage draw.*
- 2. An electrical extension cord that is too long or not the correct gauge of wire, which can also cause an increase in amperage draw. If an electric extension cord must be used, follow the instructions and refer to the chart in the electrical requirements section at the beginning of this manual.*
- 3. Overworked circuit caused by operating on a circuit that is close to its amperage draw capacity. Make sure the circuit being used is capable of handling the amperage draw from this machine as well as any other electrical devices operating on the same circuit. If you are unsure, consult a qualified electrician.*

To reset the overload protection switch after it has been tripped proceed as follows:

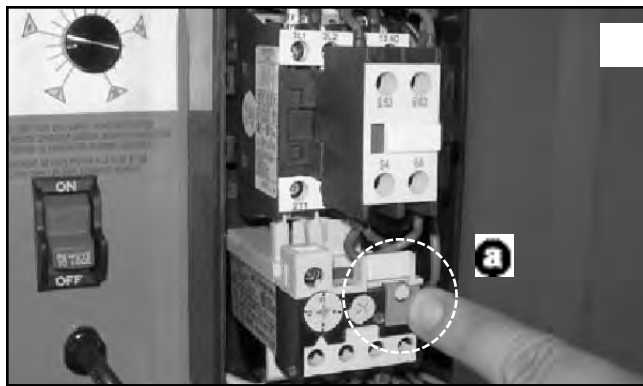


To avoid unexpected or unintentional start-up be certain that both of the power switches have been set to the off position before re-setting the overload protection switch.



1. Set both of the power switches on the sander to the off position, **a**, and disconnect the machine from the power source, **b**.

Note: If the sander is permanently connected to a circuit (hard-wired), set the wall panel circuit breaker or main circuit interrupter to the off position.

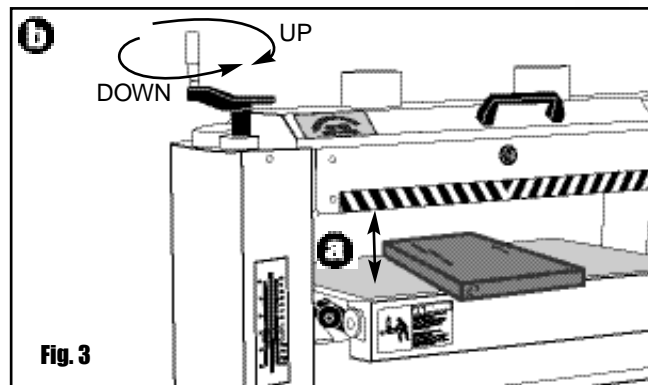


3. Press the blue reset button, **a**.


RAISING/LOWERING THE CONVEYOR TABLE

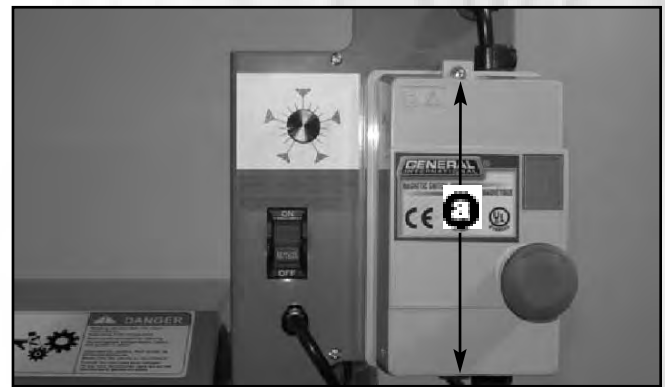
The conveyor table can be raised or lowered, **a**, as needed to suit the thickness of the workpiece, by rotating the crank handle, **b**. (Fig. 3)

Note: The maximum workpiece thickness capacity for this machine is 5".



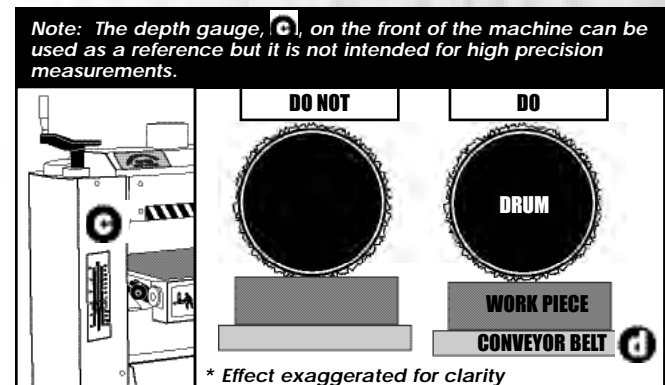
1. Put the workpiece on the conveyor belt.

 Never attempt to sand workpieces that are greater than 5".



2. Unscrew the 2 screws, **a**, and remove the control box front cover.

4. Reinstall and rescrew the control box cover.
5. Reconnect the sander to the power source.
6. You can now restart the drum motor by pushing on the green button ON.



2. Set the height of the conveyor table so that the workpiece barely touches the front drum, **d**.

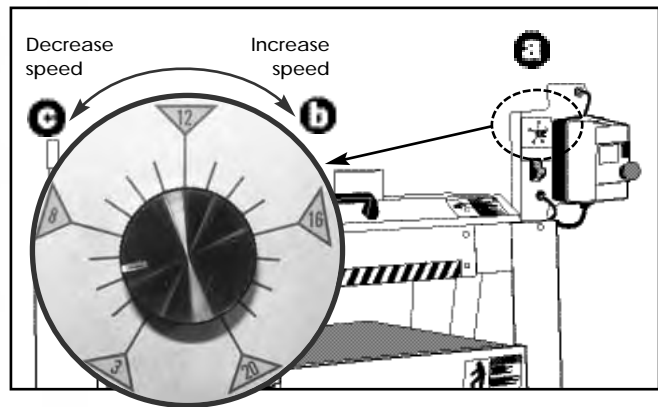
Note: To avoid overworking the motor, creating a potential circuit overload, or damaging the sanding drums, do not force the workpiece against or into the drums.

CHANGING FEED SPEED

The conveyor speed ranges from 3 to 20 FPM (Feet Per minute).

The feed speed adjustment knob, **a**, is located on the control box, on the right hand side of the machine.

- Turn the knob clockwise, **b**, to increase the feed rate.
- Turn the knob counter-clockwise, **c**, to decrease the feed rate.



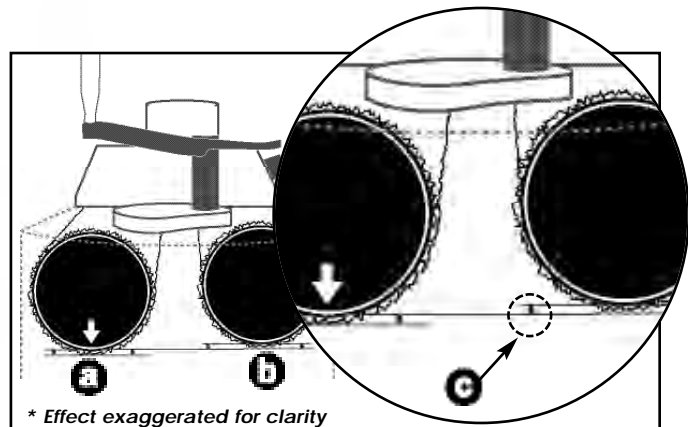
As a general guideline, more aggressive sanding using lower grits or sanding wider boards should be done at slower speeds and sanding using higher grits or sanding narrow boards can be done at higher speeds.

Given that sanding in successive grits is done in a single pass, results can vary widely depending on a variety of factors. Experiment with feed speeds based on the workpiece material, board width, depth of sanding, grit selection as well as required finish results.

ADJUSTING THE HEIGHT OF THE REAR DRUM

For optimal results, the rear drum, **a**, should be set fractionally lower than the front drum, **b**, by the depth of the grit of the paper on the front drum, **c**.

- The front drum is factory set parallel with the conveyor table and needs no further adjustments.
- The rear drum is micro-adjustable. It can be slightly raised or lowered at each end and must be kept parallel to the table.



To set the rear drum to the correct height proceed as follows:

1. Place two gauge blocks (not included) on the conveyor belt, positioned one under each end of the front drum (with the sanding belt installed on). (Fig. 4)

Note: To achieve parallelism with the front drum, any gauge blocks that are used (whether purchased or shop made) must be a matching set and must both be at the same height.

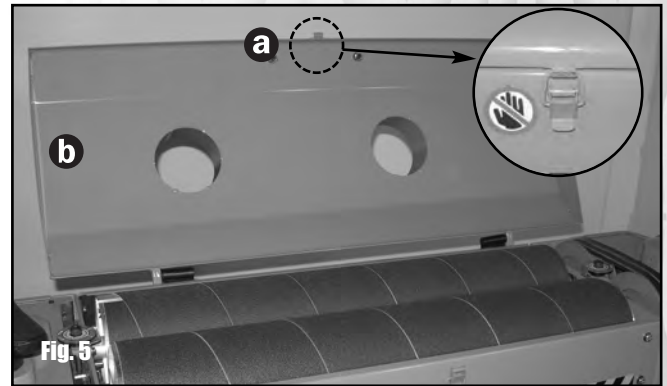
2. Raise the table until the gauge blocks barely touch the drum.



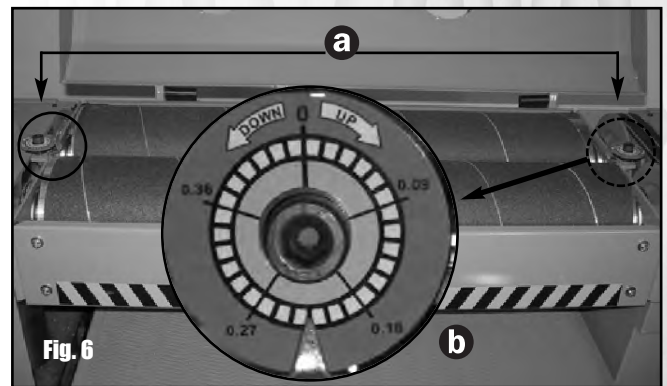


Always make sure the sander is disconnected from the power source before opening the drum cover and removing/installing sanding belts or adjusting the height of the rear drum.

- To access the sanding belts, unlock the drum cover latch, **a**, and open the top cover. The sanding belts are tightly wound around the drums and attached at both ends by spring loaded clamps, **b**. (Fig. 5)
- Remove the sanding belt from the rear drum. (See section "Removing the sanding belts" on page 17).
- Place the two gauge blocks, one under each end of the rear drum.

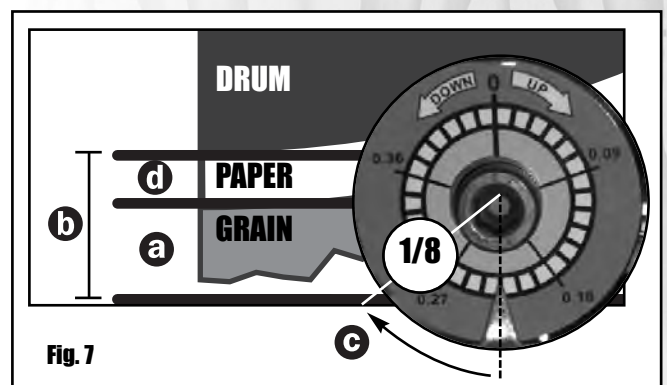


- Using the 6 MM T-Handle Allen wrench provided, slowly turn the micro-adjustment screws located at each end of the drums, **a**, counterclockwise to lower the drum, **b**, until it barely touches the gauge blocks. (Fig. 6)
- Remove the gauge blocks and reinstall the sanding belt on the rear drum. (See section "Mounting a new sanding belt" on page 18). The rear drum is now set lower than the front drum by the thickness of the sandpaper on the front drum.



- Given that the rear drum must be lower than the front drum only by the depth of the grit on the paper, **a**, (and not by the thickness of the paper including the grit, **b**), turn the micro-adjustment screws clockwise, approx. 1/8 of a turn as per the indicator dials, **c**. This will raise the drum by the fraction corresponding to the depth of the paper without the grit, **d**. (Fig. 7)

Note: You will not get an optimal result if the rear drum is not low enough. On the other hand, attempting to remove too much material in one single pass may result in workpiece burn problems or in motor overheating.



Do not use this sander as a thickness planer. Never attempt to remove more than the depth of the grit of the sanding belts in any single pass. Too much friction will cause belts to overheat and wear prematurely, and, in extreme cases, may cause burns in the workpiece.

OPERATING INSTRUCTIONS

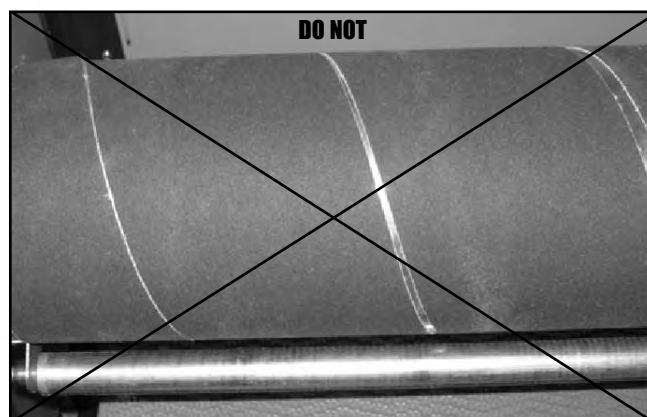
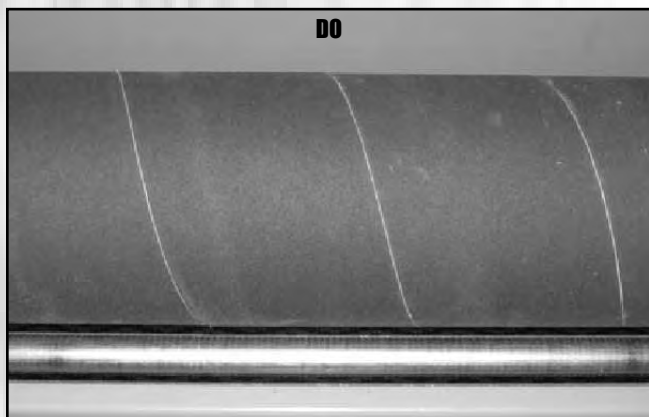
CHECKLIST BEFORE STARTING



Make sure to have on safety glasses as well as hearing and respiratory protection at all times when using the sander.

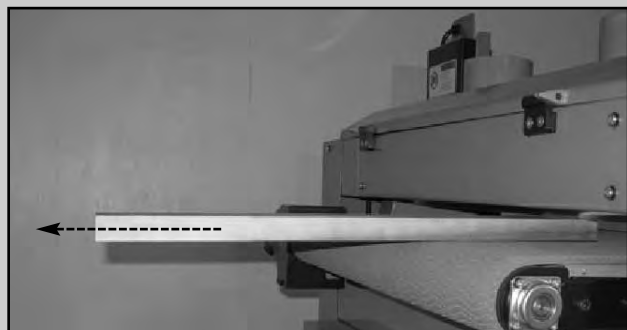
Make sure you and any assistants are wearing safe appropriate workshop attire. Roll up long sleeves, secure long hair and remove any jewelry: watches, rings, bracelets or anything that could become caught in the conveyor feed rollers or the drums, potentially causing serious injury.

- Make sure a dust collector is properly attached.
- If multiple boards are to be sanded, collect all workpieces together and set them nearby on a table or bench within easy reach.
- Make sure that the sanding belts are properly installed, that is, wound around the drums, taut and without spaces between the belts edges. Otherwise, the sanding belts may rip when in contact with the workpiece.

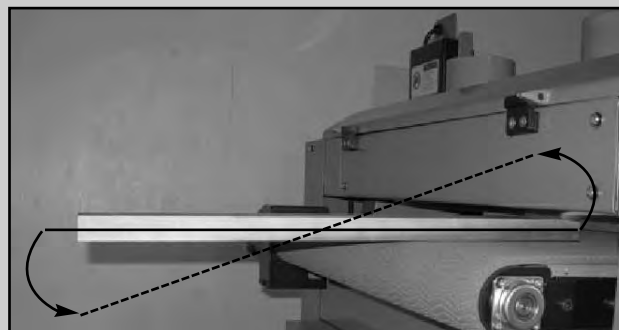


- If working with longer workpieces, make sure to have adequate out feed support safely set-up and ready before sanding.

Tip: To avoid sanding snipe – which is a small depression in the surface of a workpiece across its width caused by a variation in the sanding depth during a given pass – it is important to keep the workpiece level on the feed table until it has completely cleared contact with the sanding drums. It is advisable to use an outfeed table or some form of out-feed support when sanding workpieces of 4' or more in length. Allowing the leading edge of a longer workpiece to hang or sag off of the outfeed end of the conveyor table should be avoided as it will lift the trailing end of the workpiece up into the sanding drums and cause uneven sanding depth and snipe.



WITH AN ADEQUATE OUTFEED SUPPORT



WITHOUT AN ADEQUATE OUTFEED SUPPORT

OPERATIONS STEP-BY-STEP



To reduce the risk of damage to the sander or the workpiece, as well as a potential for personal injury, after initial set-up as well as before each use, make sure that everything is securely installed and that all fasteners and moving parts on this sander are locked in place before starting the machine.

1. Set the height of the rear drum (see section: "Adjusting the height of the rear drum" on page 12.)
2. Place the workpiece on the conveyor belt.
3. Set the height of the conveyor table. (see section: "Raising/Lowering the Conveyor Table" on page 11.)
4. Remove the workpiece from the conveyor belt.
5. Turn on your dust collector.



Always turn on the dust collector **BEFORE** starting the sander.

Keep hands away from the rotating drums and conveyor belt. Do not force the workpiece towards the sanding drums, let the conveyor belt feed the workpieces.

6. Press the green "ON" button on the control box to start the sanding drum motor.
7. Insert the safety key into the conveyor belt switch.
8. Set the feed speed to minimum before starting the conveyor belt, then lift the switch up to start the conveyor motor. Gradually increase the speed, until you reach the desired feeding speed.
9. Place the workpiece on the center of the conveyor belt and pass the board once.
10. Step to the rear of the machine and pick up the workpiece on the out feed.

Note: Consider using a proper support on the out feed for workpieces longer than 4'.

11. Pass the workpiece once again.
12. Inspect and slowly run your hand over your workpiece to determine whether or not further passes are required.

Tip: For better workpiece finish quality, make shallower passes with the conveyor table height adjusted so you just start hearing the contact noise.

13. If needed, pass the workpiece again, raising the table not more than 1/8 of a turn at a time. Repeat until desired finish quality is achieved.

Note: To avoid overworking the motor, creating a potential circuit overload, or damaging the sanding drums, do not force the workpiece against or into the drums.



Do not use this sander as a thickness planer. Never attempt to remove more than the depth of the grit of the sanding belts in any single pass. Too much friction will cause belts to overheat and wear prematurely, and, in extreme cases, may cause burns in the workpiece.

TO STOP THE MACHINE

1. Press the red "OFF" button, on the control box to stop the rotation of the drums.
2. Push the red switch to the "OFF" position to stop the conveyor belt.
3. Remove the key switch. This will prevent unauthorized use of the machine.
4. Turn your dust collector off.

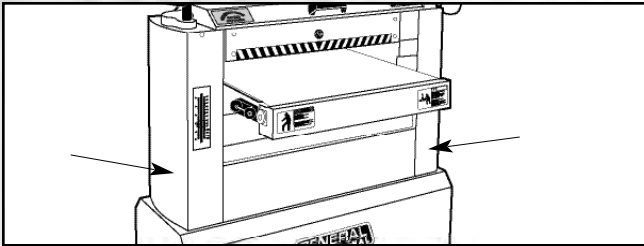


Always turn off the sander **BEFORE** turning off the dust collector.

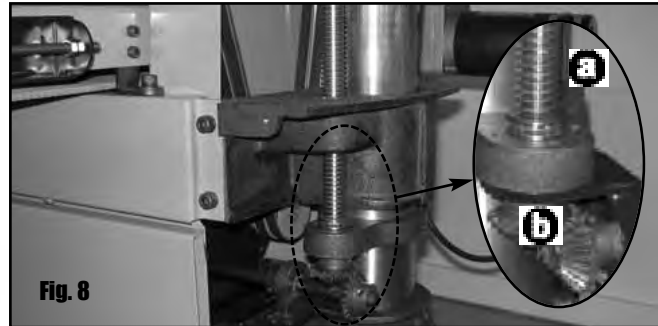
LUBRICATION



Disconnect machine from power source, before performing any maintenance or lubrication.



Note: Unscrew and remove both left and right cover to access the conveyor elevation mechanism.



Keep threaded rods, **a**, and gears, **b**, located at either end of the machine greased and free of dust or debris. Clean and remove dust, debris, and old grease after every 10-15 hours of use. After cleaning, re-apply a generous coating of any common automotive bearing grease. (Fig. 8)

PERIODIC MAINTENANCE

1. Inspect/test the ON/OFF switches before each use. Do not operate the sander with a damaged switch; replace a damaged switch immediately.
2. Keep the machine, especially motor and conveyor, as well as the feed table conveyor clean and free of dust or glue. Vacuum or brush off any loose debris and wipe down the machine and the conveyor occasionally with a damp rag.
3. The drums must always be kept clean. Dirt on the drums will cause belt slippage.
4. The motor and drum bearings are sealed and permanently lubricated – no further lubrication is required.
5. Periodically inspect the power cord and plug for damage, as well as the sanding belts, the drums, the motor pulleys, drive belts and the conveyor belt.



Never operate the sander with any damaged part. Replace a damaged part at the first visible signs of damage.

REQUIRED MAINTENANCE

MOUNTING AND REPLACING THE SANDING BELTS

Sanding belts should be replaced when worn out.

Pre-cut replacement belts can be purchased in a variety of grits from your General® International dealer under the following parts numbers:

- | | |
|---------------------|---------------------|
| • 36 grit - 15-251 | • 120 grit - 15-255 |
| • 60 grit - 15-252 | • 150 grit - 15-256 |
| • 80 grit - 15-253 | • 180 grit - 15-257 |
| • 100 grit - 15-254 | • 220 grit - 15-258 |

You can also purchase them from your local tool, abrasives or sharpening supply dealer. You can find these products in most areas. However, we recommend that you choose higher quality brand name belts. If the sanding paper is too thick or too thin, or of inconsistent quality, it may not be properly gripped by the two-step clamps.

Tip: *Cleaning the sand paper with a belt dresser will extend the life of the sand paper. Consult your local distributor.*

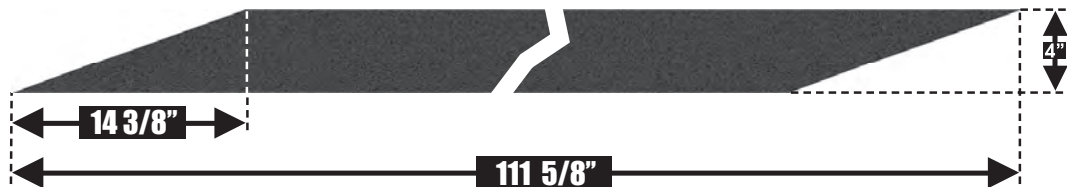
For users who prefer to purchase abrasives in longer uncut rolls or from bulk suppliers, the following cutting diagram can be used to assist in cutting the bulk paper to the correct size for this sander.

DRUM SANDER PAPER DIMENSIONS*

*MEASURED & CUT WITH ABRASIVE GRIT FACE SIDE DOWN.

24" DRUM SANDERS

MODEL #15-150 & 15-250

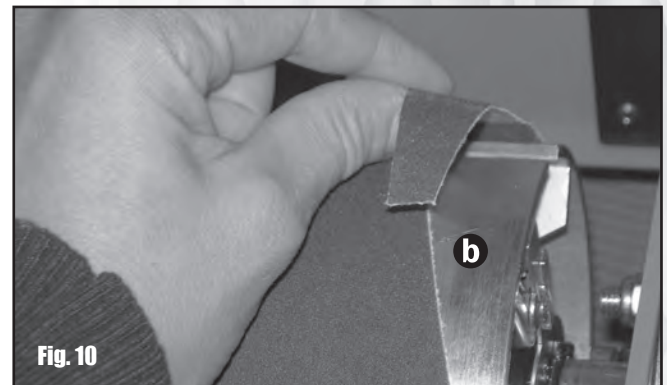
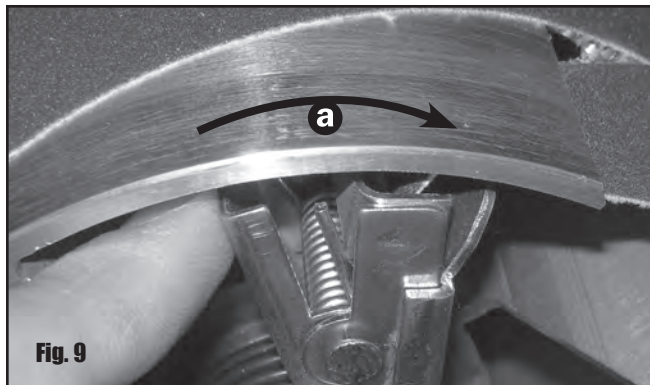
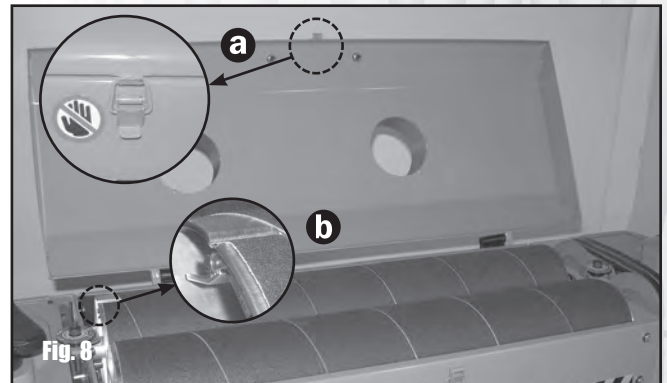


REMOVING THE SANDING BELTS



Make sure the sander is disconnected from the power source before removing/installing the sanding belts.

1. To access the sanding belts, unlock the drum cover latch, **a**, and open the top cover. The sanding belts are tightly wound around the drums and attached at both ends by spring loaded clamps, **b**. (Fig. 8).



2. Push the spring loaded clamps forward, **a**, and remove the tab of the sanding belt from the slot at the right end of the drum, **b**. (Fig. 9 and 10)
3. Unwind the sanding belt then push the left two-step clamp forward and remove the tab of the sanding belt from the slot of the left end of the drum.

MOUNTING A NEW SANDING BELT

Note: To extend belt life and avoid premature breakage, take note of the direction of the arrows printed on the inside of the sanding belt to make sure you install the belt in the correct direction.



1. Pull and hold the left spring loaded clamp.

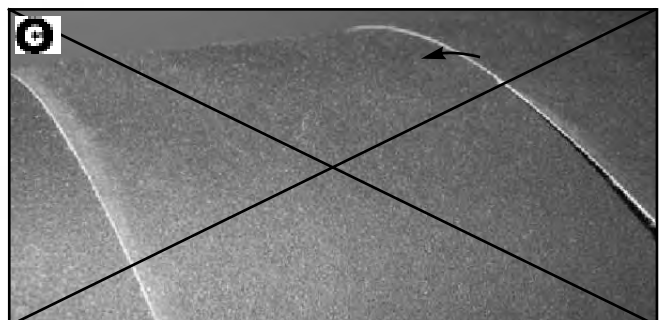
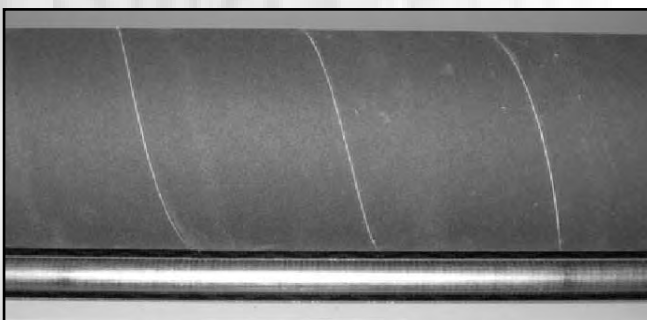
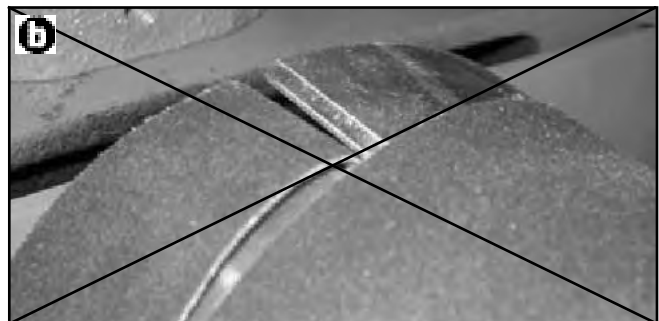
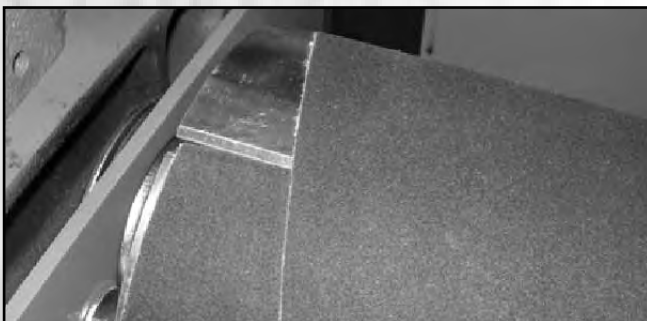
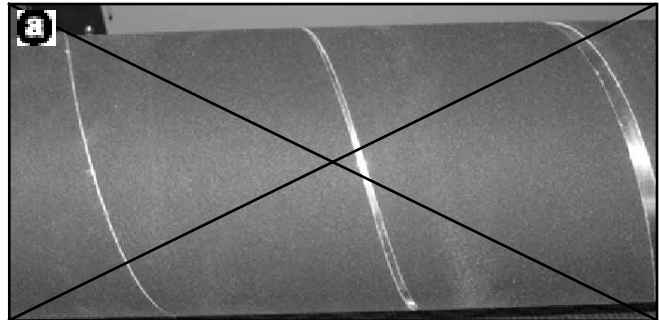


2. Insert the left tab of the sanding belt in the slot, pushing all the way in (as far as possible), then release the clamp to lock the tab in place.

DO

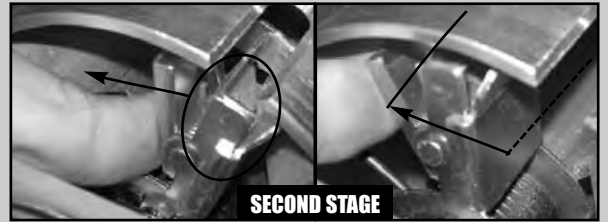
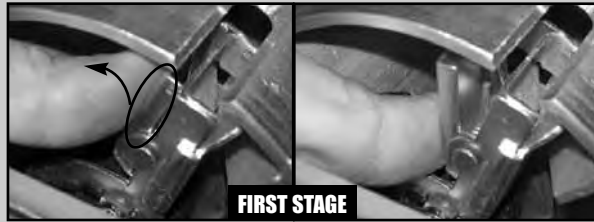


DO NOT

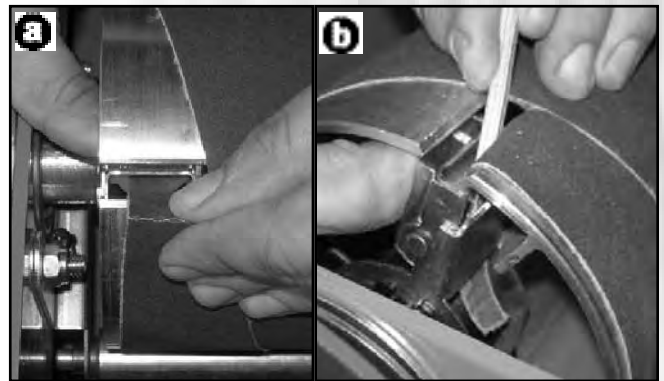


3. Tightly wind the sanding belt around the drum, making sure that there are no spaces between the edges, **a**, of the sanding belt, that the belt is taut and that there are no bumps, **b**. Do not overlap the edges, **c**.

Note: The spring loaded clamp at the right end of the drums is a two stage spring. The first stage grabs the paper and the second stage pulls the clamp backward inside the drum, providing proper tension to the sanding belt.



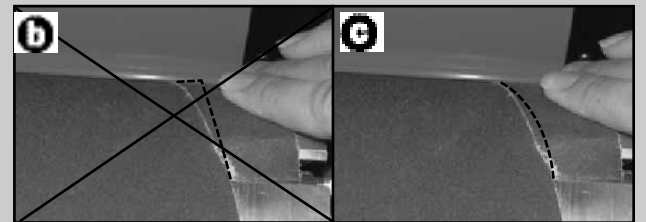
4. Push and hold the right two-step clamp forward with your thumb.



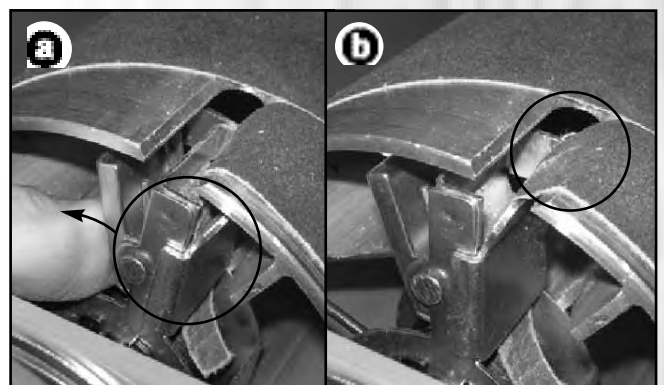
5. Insert the right tab of the sanding belt in the slot, pushing all the way in (as far as possible), until it is tight, **a**.

*Tip: Use a flat stick or any similar non-cutting object to force the tab further into the slot so it is as tight as possible, **b**.*

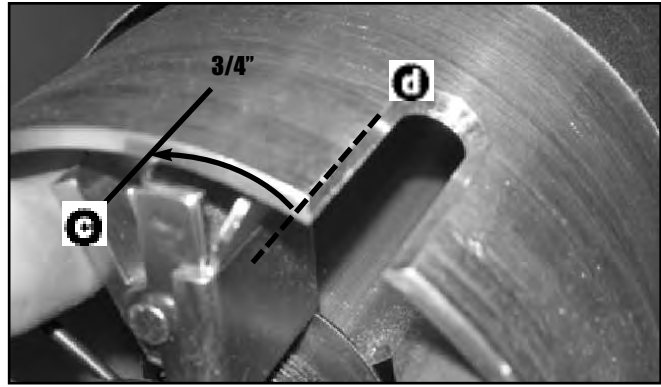
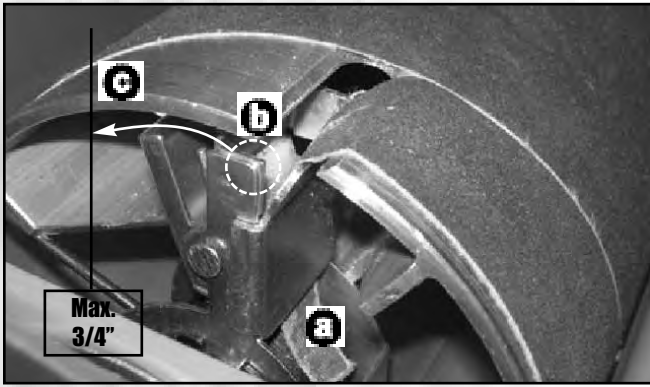
*Note: On occasion, due to slight variations in the length of the sanding belts or in the depth of installation in the left belt clamp, even with the belt properly wound onto the drum, there may be slightly too much belt left at the right end of the drum. This may cause a slight overlap on the last wrap on the drum, **a**, and this despite installing the right end of the belt as far into the clamp as it will go. In such cases, to avoid having to unroll and realign the entire belt on the drum after it has already been secured at both ends and is otherwise properly installed, use a utility knife or scissors to cut and remove the overlapped section of paper. To avoid belt tearing during sanding, avoid cutting at right angles, **b**, - make a rounded or curved cut, **c**.*



6. Release **only** the first stage of the clamp, sliding your thumb down towards the bottom to lock the tab in place.



7. Release the clamp, **a**. This will bring proper tension, **b**, to the sanding belt.

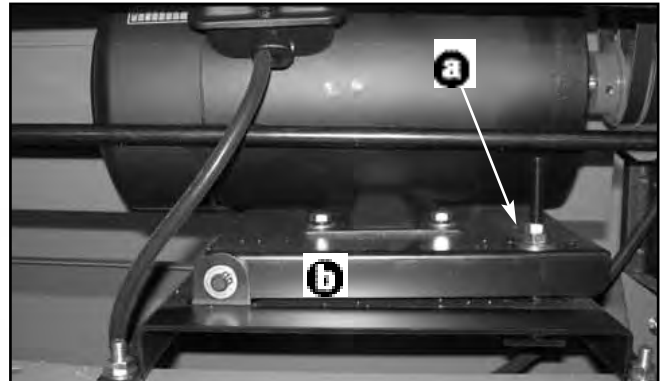
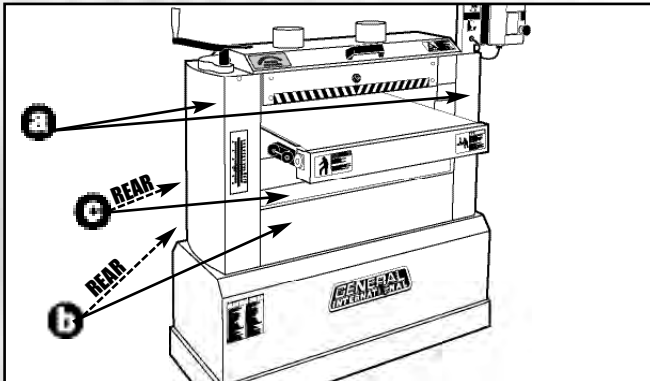


*Note: With the sanding belt tab, **a**, properly inserted in the clamp, **b**, the clamp assembly, **b**, should not pull back more than 3/4" from the slot in the drum, **c**. If the clamp assembly pulls back further than 3/4" the sanding belt tab needs to be inserted further into the clamp to remove some of the slack in the belt. Otherwise the paper will not be properly tensioned on the drum and the belt may loosen, unwind, or possibly tear when it comes in contact with the workpiece.*

8. Once the sanding belts have been properly installed and tensioned on the drums, close and lock the drum cover.

DRUM MOTOR BELT REPLACEMENT

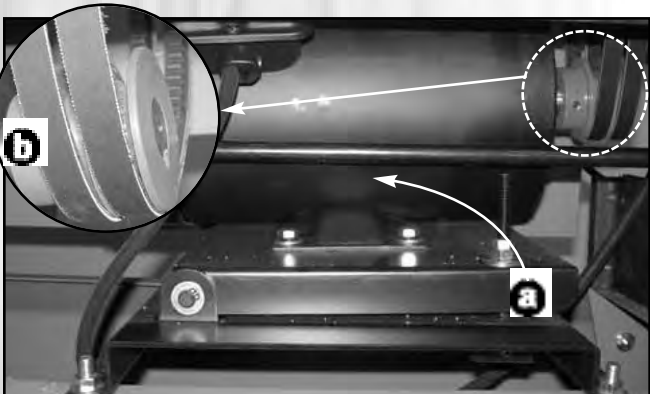
The sanding drums are driven by two belts mounted on two pulleys powered by the motor. If the belts become too loose due to wear or if a breakage occurs, you must replace one or both as needed. Proceed as follows:



1. Unscrew and remove both left and right covers, **a**, the front and rear panels, **b**, then the front and rear shield plates, **c**.
2. With a 14 mm open end wrench, loosen but do not remove the nut and lock nut, **a**, located on the motor positioning plate, **b**.

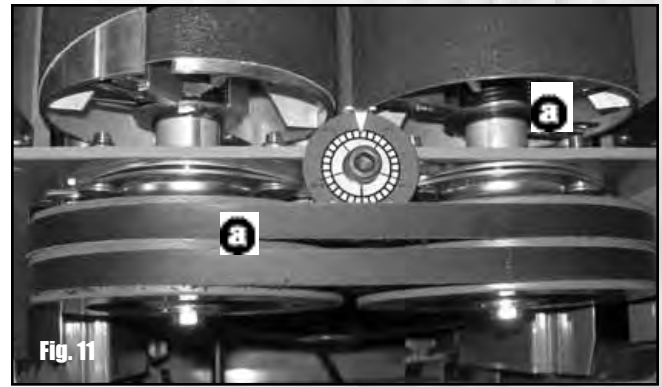


Proceed with caution. Removing the belts from the pulleys will cause the motor to swing freely under its own weight on the support shaft. Do not let it drop. Hold it until it is back down.



3. Lift the motor positioning plate, **a**. This will loosen the belts, **b**.
4. Carefully remove the belts from the grooves on the lower pulleys.

5. Remove the belts from the upper pulleys, **a**, and install new belts. (Fig. 11)
6. Lift the motor and install the other end of the belts in the slot on the lower pulleys.
7. Put the motor back to its initial position, then retighten the lock and lock nut located on the motor positioning plate.

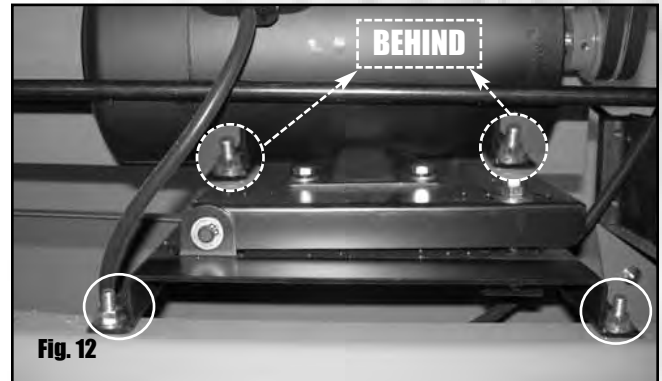


REPLACING MOTOR



Never attempt to repair motor yourself. Contact a qualified technician.

Should the motor require replacement, remove the 4 nuts, washers and bolts on the bottom of the motor base and remove the entire motor assembly. (Fig. 12)

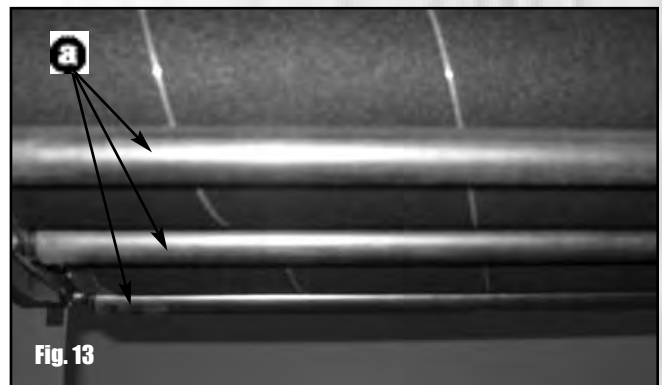


ADJUSTING THE PRESSURE ROLLERS

The 3 pressure rollers, **a**, (front, middle and rear) maintain the workpiece on the conveyor belt, preventing it from lifting up from the conveyor into the drums. (Fig. 13)

They are factory set to provide a proper amount of downward pressure to the workpiece. However, with use and normal wear over time, it may eventually become necessary to make minor adjustments to the pressure rollers.

If you notice snipe (which is a small depression in the surface of a workpiece across its width, caused by a variation in the sanding depth during a given pass) either at one or both ends of your workpiece, the pressure on the rollers must be reduced, either by adjusting their height or tension.



Refer to the following symptoms to determine which pressure rollers need to be adjusted:

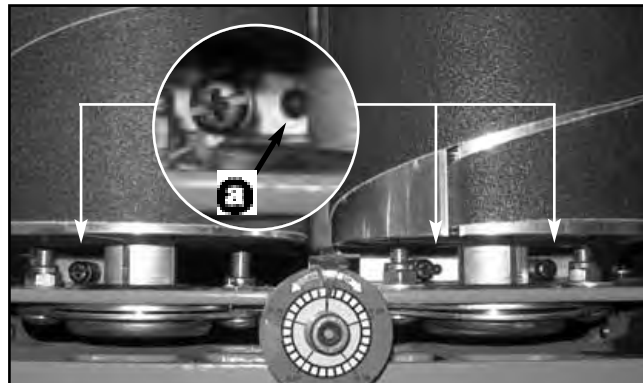
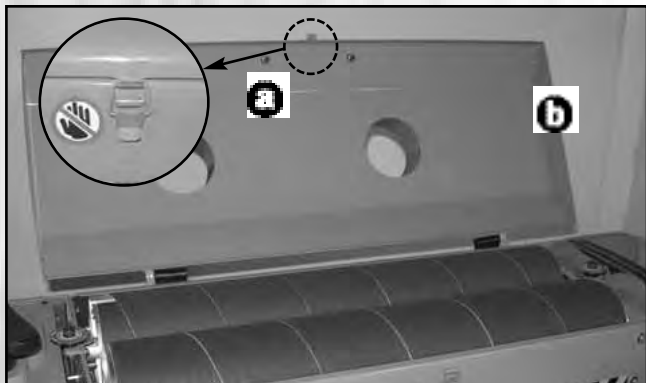
- If snipe occurs at the beginning of the board, reduce the amount of pressure on the front and/or middle pressure roller(s).
- If snipe occurs at the tail end of the board, reduce the amount of pressure on the middle and/or rear pressure roller(s).

Increasing the amount of pressure is achieved by adjusting either the height or the tension of the pressure rollers. In both cases, some experimentation may be necessary to achieve an ideal adjustment.

Note: Generally, snipe problems occur when pressure rollers are set too low. Less frequently, this problem occurs as a result of too much tension in the pressure rollers. It is thus possible that, although you adjusted the height of the rollers, you still get snipe on your board. If this is the case, adjust the tension of the rollers. Proceed as follows:



Always turn off and unplug the sander before performing any maintenance or adjustments.



1. To access the set screw and micro-adjustment spring, unlock the drum cover latch, **a**, and open the top cover, **b**.
2. Using the 2 mm T-handle Allen key provided, slightly turn the set screws, **a**, at each end of the corresponding pressure roller(s) to be adjusted.
3. Close the top cover, plug in the machine and run a test piece through to check for snipe.
4. If needed, continue adjusting the height of the pressure rollers until you get no more snipe on your board.

If after several adjustments you do not obtain satisfactory results by adjusting the height of the pressure roller, adjust its tension as follows:



Always turn off and unplug the sander before performing any maintenance or adjustments.

1. To access the micro-adjustment spring, unlock the drum cover latch, and open the top cover.
2. Slightly turn the phillips head screws, **a**, located at each end of the corresponding pressure roller(s) to be adjusted. (Fig. 14)
3. Close the top cover, plug in the machine and run a test piece through to check for snipe.
4. Continue adjusting the tension of the pressure rollers until you get no more snipe on your board.

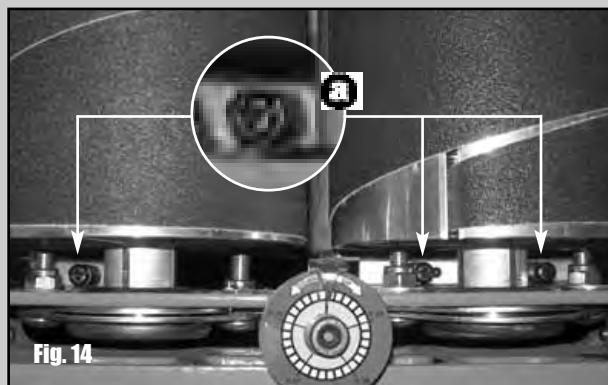


Fig. 14

RECOMMENDED OPTIONAL ACCESSORIES FOR YOUR SANDER

We offer a large variety of products to help you increase productivity, accuracy and safety when using your sander. Here's a small sampling of accessories available from your local General International dealer. For a complete list, visit our website at www.general.ca.



Sanding belts

15-251 - 36 Grit
15-252 - 60 Grit
15-253 - 80 Grit
15-254 - 100 Grit
15-255 - 120 Grit
15-256 - 150 Grit
15-257 - 180 Grit
15-258 - 220 Grit



Dust Collector

We have a wide selection of dust collectors to suit all your shop needs. Dust collectors contribute to a cleaner and more healthful workshop environment.



Mobile base

50-025

Easily roll your sander anywhere in your shop. Load capacity: 500 lbs. Wheels lock when equipment is in use.



Flexible, expandable 2-way roller stand. Model

50-167S

Ideal for use for infeed or outfeed support. 20" wide, height from 24 1/4" to 37", and length from 21" to 51". Four 4" high quality swivel casters with locking foot levers. 300 lbs load capacity.

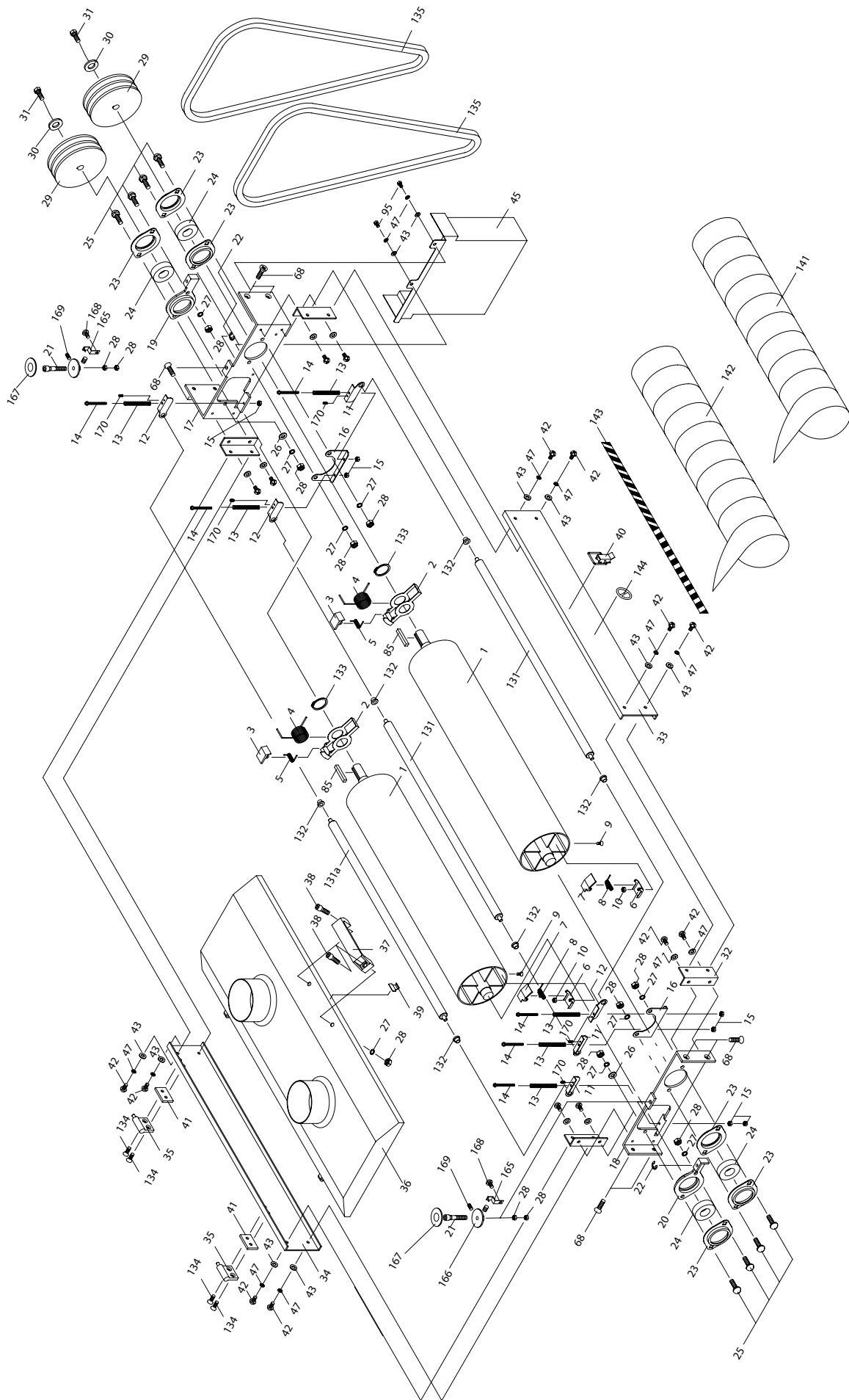


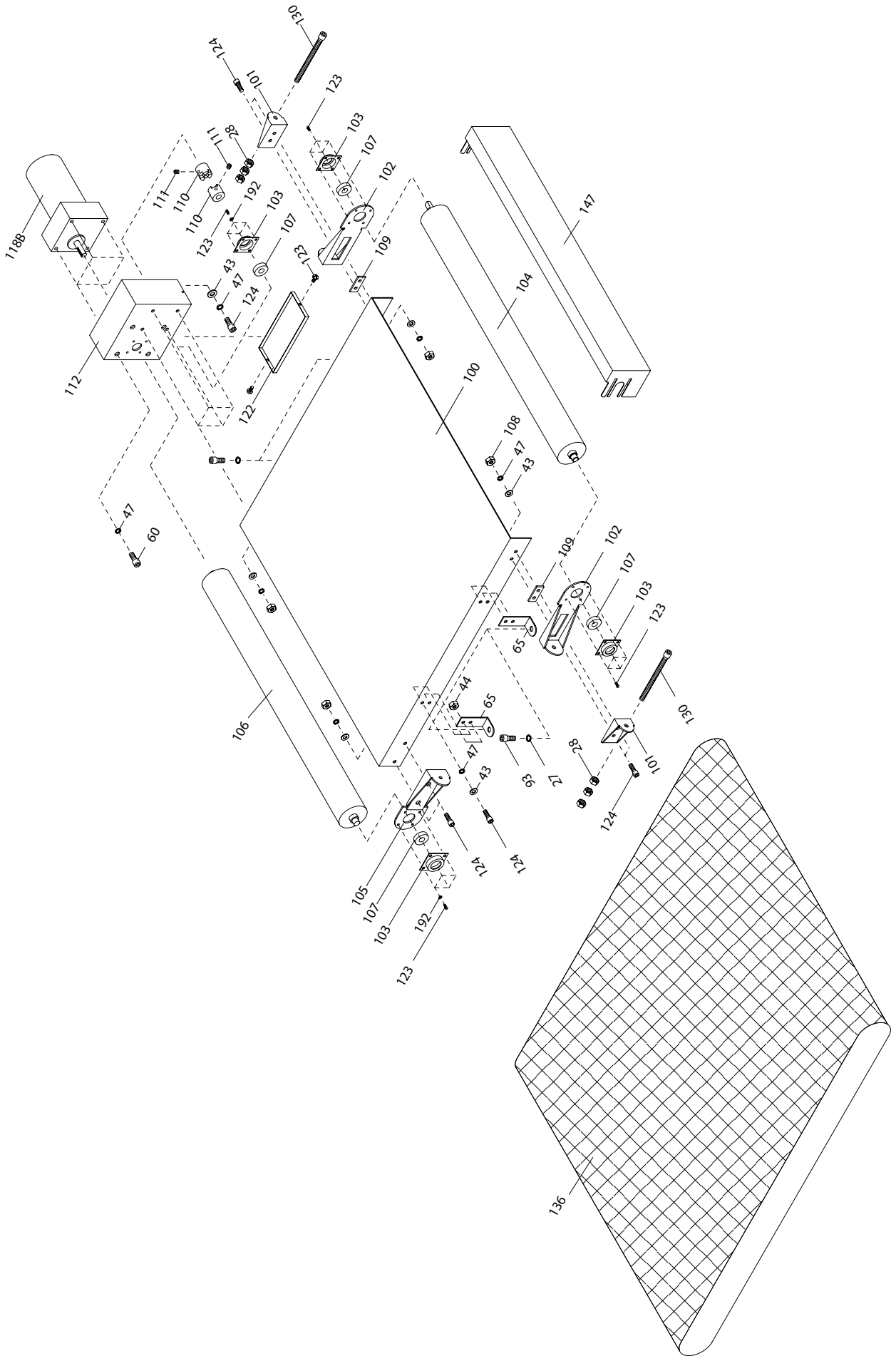
Gauge Blocks

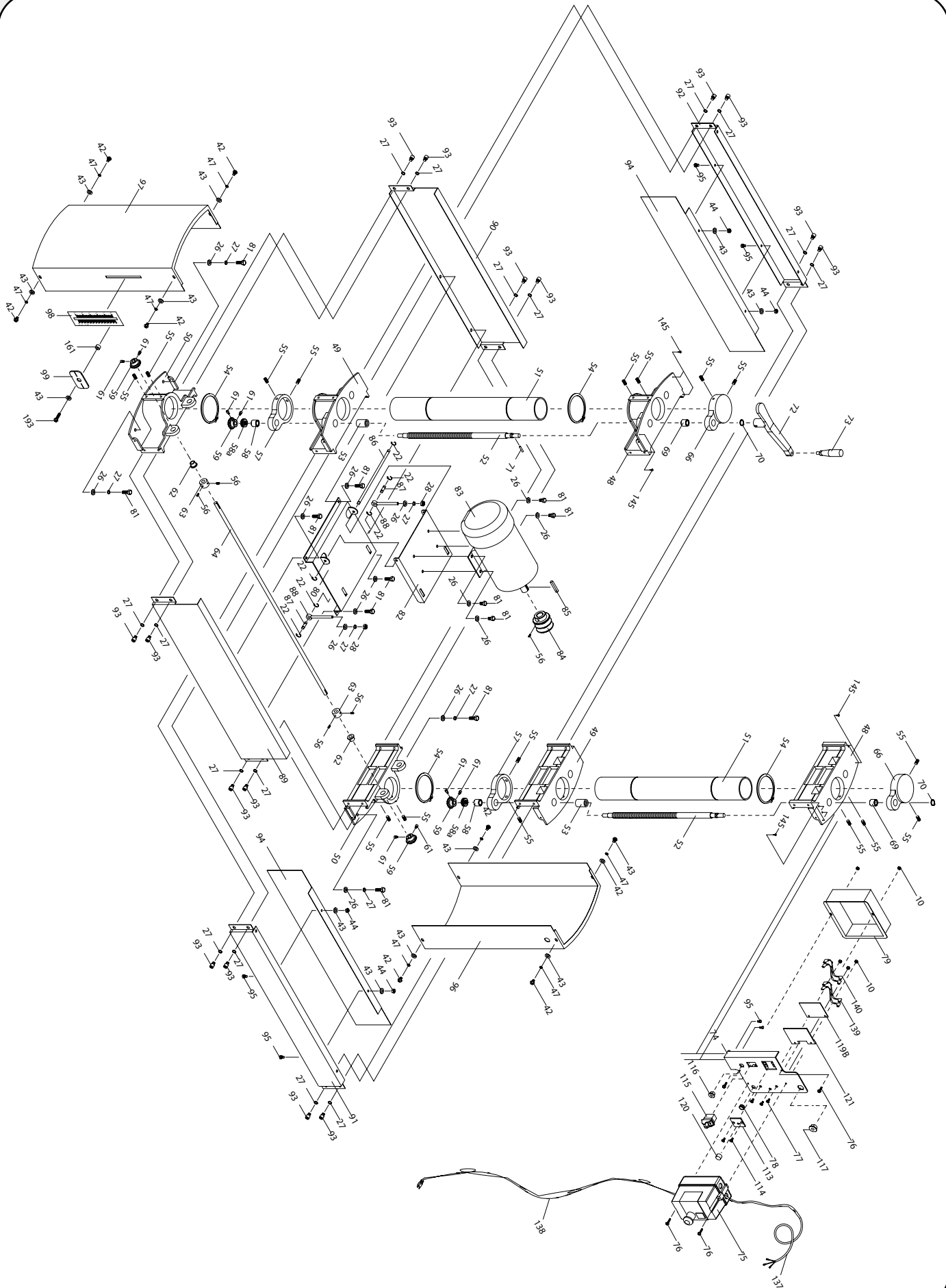
30-040

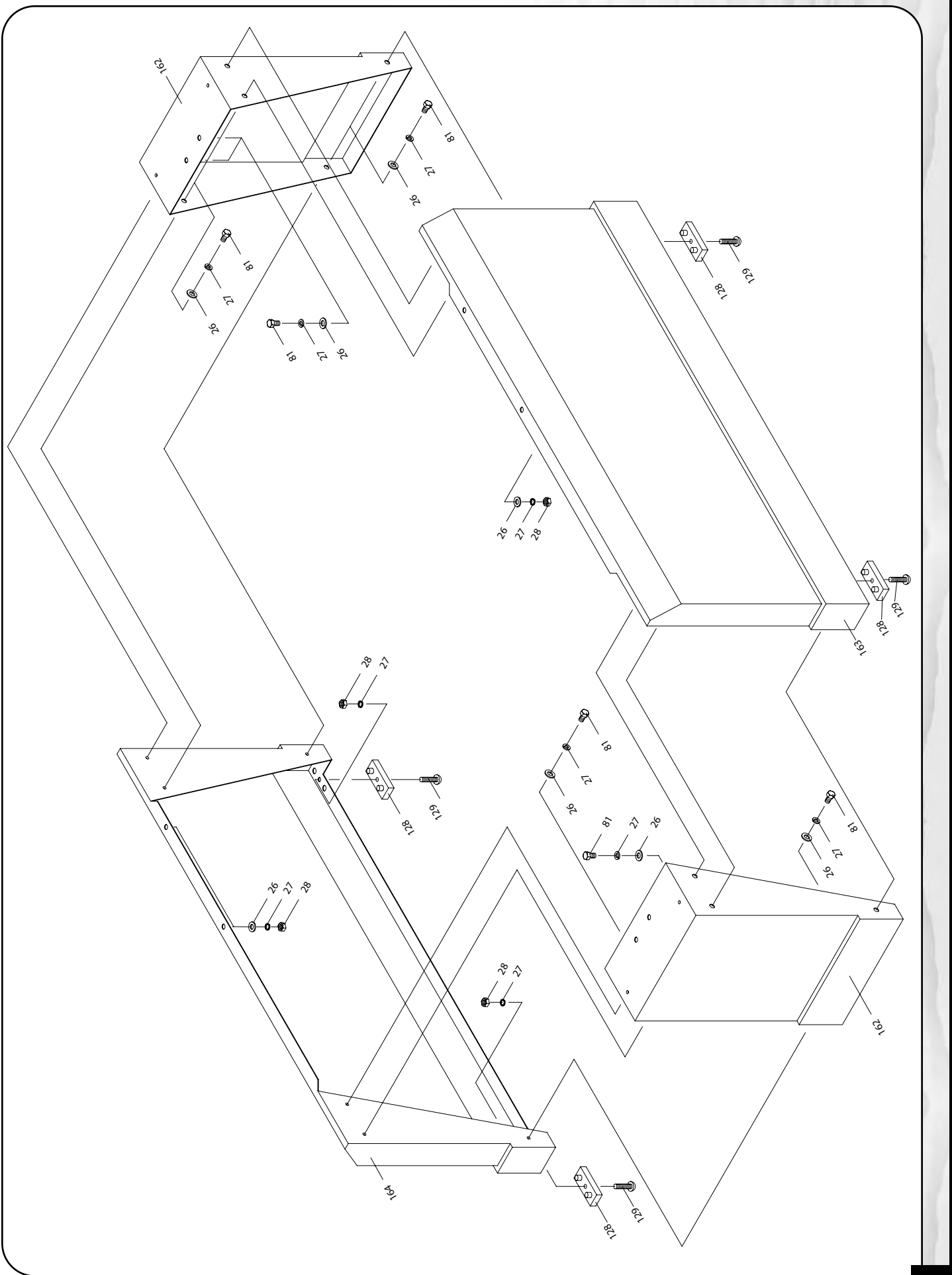
Matching set of two precision aluminum gauge blocks. Ideal for use in achieving parallelism adjustments for drum sanders and planers.

NOTES









PARTS LIST - 15-250 M1

PART NO.	REF NO.	DESCRIPTION	SPECIFICATION	QTY
15250-01	20900001	DRUM		2
15250-02	20703010	TWO-STEP CLAMP		2
15250-03	20703010B	TWO-STEP CLAMP PLATE		2
15250-04	20703010A	SPRING		2
15250-05	20703014A	SPRING		2
15250-06	20703014	FIXED CLAMP BRACKET		2
15250-07	20703014B	FIXED CLAMP PLATE		2
15250-08	20703014C	SPRING		2
15250-09	S0040300	PHILLIPS HEAD SCREW		2
15250-10	S0110300	NUT	3/16"-24UNC	7
15250-11	20900086	RIGHT CLAMP		3
15250-12	20900087	LEFT CLAMP		3
15250-13	20900069	MICRO-ADJUSTMENT SPRING		6
15250-14	S0030580M	PHILLIPS HEAD SCREW		6
15250-15	S0120500M	NYLON NUT	M5X0.8	6
15250-16	20900002	CLAMP BLOCK		2
15250-17	20900003	RIGHT BEARING HOUSING		1
15250-18	20900004	LEFT BEARING HOUSING		1
15250-19	20900005	RIGHT MICRO-ADJUST.BEARING CAP		1
15250-20	20900006	LEFT MICRO-ADJUST.BEARING CAP		1
15250-21	S0020530A	MICRO-ADJUSTMENT SCREW		2
15250-22	S05ETW06	CIRCLIP	E6	8
15250-23	20703002	BEARING CAP		6
15250-24	C1206205	BEARING	6205	4
15250-25	S0060510	CAP SCREW		8
15250-26	S0210500C	FLAT WASHER		38
15250-27	S0230506	LOCK WASHER	5/16"	62
15250-28	S0120500	NUT	5/16"-18UNC	30
15250-29	20900008	DRIVE ROLLER		2
15250-30	S0210532	FLAT WASHER	3/8"X23	2
15250-31	S0020512L	LEFT THREADED SCREW	5/16"-18UNCX1"L	2
15250-32	20900009	CORNER BRACKET		4
15250-33	20900010	FRONT UPPER PANEL		1
15250-34	20900011	DUST HOOD SUPPORT PANEL		1
15250-35	20702019	HINGE		2
15250-36	20900012	DUST HOOD/DRUMS COVER		1
15250-37	20703016	DUST HOOD/DRUMS COVER HANDLE		1
15250-38	S0010502	CAP SCREW	5/16"-18UNCX3/4"L	18
15250-39	20900070	UPPER CLASP		1
15250-40	20900071	LOWER CLASP		1
15250-41	20900068	HINGE PAD	SS41	2
15250-42	S0030405	PHILLIPS HEAD SCREW	1/4"-20UNC	24
15250-43	S0210401	FLAT WASHER	1/4"X13X1	41
15250-44	S0110400	NUT		12
15250-45	20900013	PULLEY GUARD		1
15250-47	S0230400	LOCK WASHER	1/4"	46
15250-48	20900014	UPPER BRACKET		2
15250-49	20900015	COLUMN SUPPORT BRACKET		2
15250-50	20900016	LOWER BRACKET		2
15250-51	20900017	WORM GEAR		2
15250-52	20900018	WORM		2

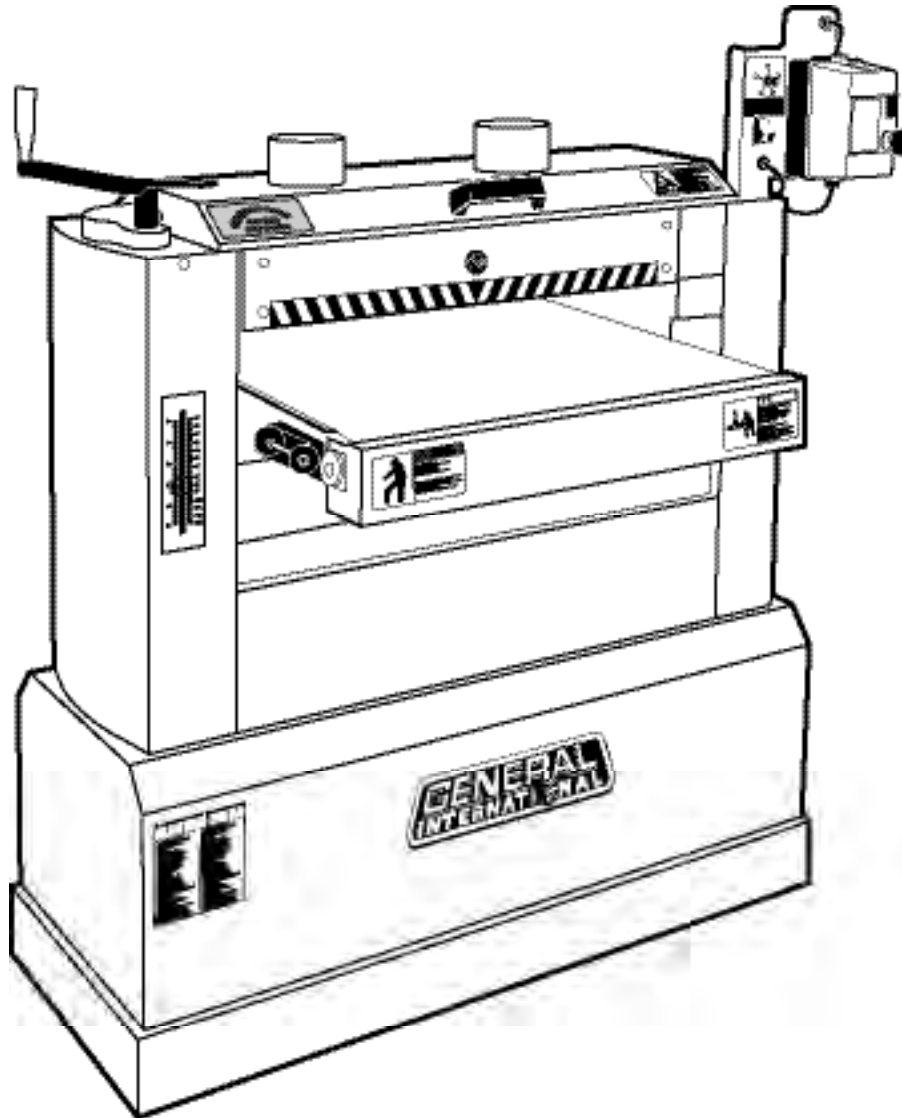
PARTS LIST - 15-250 M1

PART NO.	REF NO.	DESCRIPTION	SPECIFICATION	QTY
15250-53	20900019	BUSHING		2
15250-54	S0520080	CIRCLIP	S80	4
15250-55	S0050500	SET SCREW		16
15250-56	S0050406	SET SCREW		5
15250-57	20900020	SCREW HOLDER		2
15250-58A	C5151102	BEARING	51102	2
15250-58	20900021	BRONZE COLLAR		2
15250-59	20900022	BEVEL GEAR		4
15250-60	S0010616M	HEX HEAD BOLT	M6 X 1.0 X 16	4
15250-61	S0010303	HEX HEAD BOLT	3/16"-24UNCX3/8" L	8
15250-62	20900023	GEAR SHAFT BUSHING		2
15250-63	20900024	POSITIONING COLLAR		2
15250-64	20900025	TRANSMISSION SHAFT		1
15250-65	20900067	MOUNTING BRACKET		4
15250-66	20900026	POST COVER		2
15250-68	S0040307	PHILLIPS HEAD SCREW	5/16"-18UNCX1"L	8
15250-69	20900028	BRONZE COLLAR COVER		2
15250-70	S0520015	CIRCLIP	S15	2
15250-71	S0310420	PIN	4X20	1
15250-72	20900029	CRANK HANDLE		1
15250-73	10105056A	HANDLE KNOB		1
15250-74	20900030	SWITCH MOUNTING PLATE		1
15250-75	W2092301D	MAGNETIC SWITCH		1
15250-76	S0030318	SCREW	3/16"-24UNCX3/4"L	4
15250-77	S0040308	FLAT HEAD SCREW		3
15250-78	10401008	CORD BUSHING		1
15250-79	20900066	SWITCH REAR GUARD		1
15250-80	20900031	MOTOR BASE		1
15250-81	S0020501	HEX HEAD BOLT		28
15250-82	20900032	MOTOR ADJUSTMENT PLATE		1
15250-83	M0000000	MOTOR		1
15250-84	20900033	DRIVE PULLEY		1
15250-85	S0430640	KEY	6X40	3
15250-86	20900034	BASE SHAFT		1
15250-87	20900035	POSITIONING SHAFT		2
15250-88	20900036	SCREW		2
15250-89	20900037	FRONT COVER		1
15250-90	20900038	REAR COVER		1
15250-91	20900039	FRONT PANEL		1
15250-92	20900040	REAR PANEL		1
15250-93	S0010500	CAP SCREW	5/16"-18UNCX1/2"	20
15250-94	20900041	SHIELD PLATE		2
15250-95	S0020408	CAP SCREW	1/4"X1/2"	8
15250-96	20900042	RIGHT COVER		1
15250-97	20900043	LEFT COVER		1
15250-98	20900044	GRADUATED SCALE		1
15250-99	20900045	INDICATOR		4
15250-100	20900046	BELT PLATEN		1
15250-101	20900047	MICRO-ADJUSTMENT BLOCK		2
15250-102	20900048	MICRO-ADJUST. MOUNTING BRACKET		2
15250-103	20900049	BEARING CAP		4

PARTS LIST - 15-250 M1

PART NO.	REF NO.	DESCRIPTION	SPECIFICATION	QTY
15250-104	20900050	FRONT CONVEYOR ROLLER		1
15250-105	20900051	POSITIONING PLATE		1
15250-106	20900052	CONVEYOR DRIVE ROLLER		1
15250-107	C1106202	BEARING	6202	4
15250-108	S0120200	NYLON NUT	1/4"-20UNC	10
15250-109	20900053	PAD		2
15250-110	20900054	SHAFT JOINT		2
15250-111	S0050404C	SCREW	1/4"-20UNCX1/4"L	2
15250-112	20900055	ELECTRIC CONTROL BOX		1
15250-113	20701011	ELECTRICAL INSULATION BOARD		1
15250-114	S0040510M	PHILLIPS HEAD SCREW		2
15250-115	W0000001	SAFETY SWITCH		1
15250-116	S1017W-2	PLASTIC CLAMP		1
15250-117	S1006P-4	PLASTIC CLAMP	6P-4	1
15250-118B	M2090002	SPEED REDUCTION MOTOR		1
15250-119B	20900073	PC BOARD		1
15250-120	40501019	REGULATOR KNOB		1
15250-121	40501018	PC BOARD MOUNTING PLATE		1
15250-122	20900056	BOTTOM COVER, ELECTRIC CONTROL BOX		1
15250-123	S0030304	PHILLIPS HEAD SCREW	3/16"-24UNCX1/4"L	18
15250-124	S0010615M	CAP SCREW	1/4"-20UNCX3/4"L	18
15250-128	10401029	FOOT PAD		4
15250-129	S0090512	SCREW	5/16"-18UNCX5/8"L	4
15250-130	S0010503A	CAP SCREW	5/16"-18UNCX4"L	2
15250-131	20900060	PRESSURE ROLLER	FRONT	2
15250-131A	20900060A	PRESSURE ROLLER	REAR	1
15250-132	20701006	BEARING		6
15250-133	S0520028	CIRCLIP	S28	2
15250-134	S0040410	PHILLIPS HEAD SCREW	1/4"-20UNCX5/8"L	4
15250-135	V0017500	V-BELT		2
15250-136	20900061	CONVEYOR BELT		1
15250-137	L000000M	POWER CORD		1
15250-138	L0000000	CORD		1
15250-139	L2090001	SWITCH WIRE		2
15250-140	L2090002A	WIRE WITH TERMINALS		2
15250-141	20900062	SANDING BELT (SEE 15-253)	P80	1
15250-142	20900063	SANDING BELT (SEE 15-255)	P120	1
15250-143	J2090001	WARNING LABEL		1
15250-144	J2090002	WARNING LABEL		1
15250-145	10101002	COVER CUSHIONS		4
15250-147	20900064	COVER PANEL		1
15250-148	S0911214	COMBINATION WRENCH(NOT SHOWN)	12/14MM	1
15250-149	S1206150	T HANDLE ALLEN WRENCH(NOT SHOWN)	6MM	1
15250-149A	S1202100	T HANDLE ALLEN WRENCH(NOT SHOWN)	2MM	1
15250-149B	S0910103	ALLEN KEY(NOT SHOWN)	5 MM	1
15250-161	20900081	SPACER		1
15250-162	20900082	SIDE PANEL		2
15250-163	20900083	FRONT PANEL		1
15250-164	20900084	REAR PANEL		1
15250-165	20900100	SCALE POINTER		2
15250-166	20900101	ADJUSTING COLLAR		2

15-250 M1



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IMPORTANT: When ordering replacement parts, always give the model number, serial number of the machine and part number. Also a brief description of each item and quantity desired.