

Keep This Manual Handy For Quick Reference

OWNER'S MANUAL

25-50 DRUM SANDER



IMPORTANT: BEFORE OPERATING YOUR DRUM SANDER READ THE INSTRUCTIONS IN THIS MANUAL FOR UNPACKING AND SETTING UP YOUR MACHINE.

(Shown with optional accessories)

SUPERMAX TOOLS
Improving Your Greatest Asset...Time

CONGRATULATIONS

You have made a wise purchasing decision by adding this machine to your tool line-up. The main purpose in inventing and developing the sander you've purchased was to bring a new dimension of productivity to your shop, be it large or small. Right from the start, our goal at SUPERMAX Tools has been to design and manufacture equipment that is capable of providing you with maximum economy, maximum utility, and maximum performance.

Your 25-50 Drum Sander will pay you back many fold in the years ahead by helping you get better results in less time, start to finish. This tool incorporates a bundle of exclusive features which you will appreciate more every time you use it. All SUPERMAX Tools sanders feature the exclusive variable-speed power feed conveyor system. Together, they provide you with ultra-precise control, for a variety of applications.

SUPERMAX Tools and its dealers are committed to providing you with innovative solutions, from selecting the right machine to helping you get top performance when you put it to work in your shop. Regardless of how you take advantage of these innovations, we are confident our equipment will help bring you a giant step forward in precision shop productivity.

CAUTION, SAFETY FIRST

When maintaining and operating this machine, always put safety first. For your own safety, read and understand this owner's manual before operating this machine. Always heed and follow all normal safety precautions, including the following:

- Always wear eye protection while operating the sander.
- Always feed stock against the drum rotation.
- Never place hands or fingers under the drum or dust cover.
- Keep hands and clothing away from operating brush and drum.
- Never operate the sander without its dust cover or guarding in place.
- Always maintain control of stock to avoid kickback; know how to prevent it.
- Always disconnect electrical power before doing any servicing or adjusting of the machine.

MODEL IDENTIFICATION

Your 25-50 Drum sander is one of a family of machines from SUPERMAX Tools designed to help you achieve results comparable to industrial-size sanders at a fraction of the cost. For future reference, find the model, stock and serial numbers on the back of machine base and write them in below.

Model: _____

Stock Number: _____

Serial Number: _____

Date Purchased: _____

Dealer: _____

IMPORTANT: KEEP THIS MANUAL HANDY

Please read this manual first. It was designed to help you get the most from your 25-50 Drum sander. Before unpacking or using the machine, familiarize yourself with its components, features, and basic adjustments by reviewing the following pages. You

will find it an invaluable aid in setting up, operating and servicing your machine. If, after reviewing this manual, you still have a problem you can't solve, please call your SUPERMAX Tools dealer.

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FOR YOUR SAFETY: Read all instructions carefully, and note the safety cautions on the opposite page and on the back cover of this manual.

ABOUT THE 25-50 DRUM SANDER SYSTEM

This manual is designed to help familiarize you with your SUPERMAX sander, and to help you take advantage of its exclusive features. By understanding its major components, and how they work together, you will be able to get the most from your investment. The SUPERMAX system is basically made up of: 1) a height adjustment handle which raises and lowers the

sanding head; 2) Depth gauge; 3) a feed rate control knob which starts feed conveyor and selects feed rate from 0-10 feet per minute; and 4) a motor starter switch which starts and stops the drive motor and sanding drum.

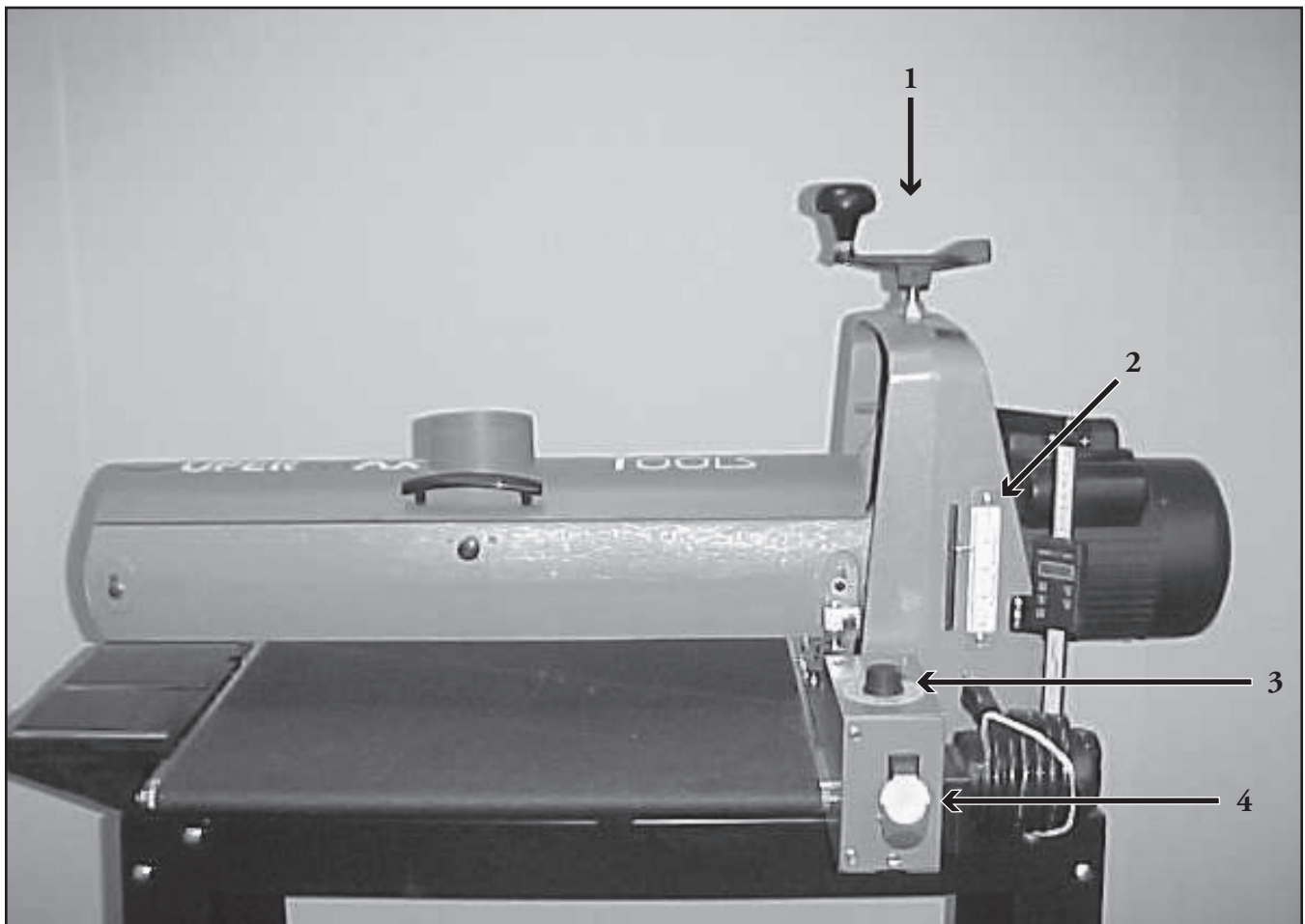


Fig. 1 SUPERMAX nomenclature.

UNPACKING YOUR SUPERMAX

Your 25-50 Drum sander has been shipped mostly assembled from the factory. If any damage has occurred as a result of shipment, notify the transportation company as soon as possible and ask them to make an immediate inspection. Ask for a damage or loss report. Also notify your dealer of any loss or damage during shipment. See enclosed Warranty Statement.

Important: To avoid problems and potential damage to the machine, please read through the unpacking instructions below before proceeding to set up the machine in your shop.

1. Assemble stand or prepare dedicated bench for sander attachment
2. Open "Box 1" with main sanding unit. Remove cardboard liner. Open plastic bag.
3. Cut each corner of Box 1 to fold sides flat, providing access to sanding unit. (Fig 2)
4. Remove two wood packing plates from bottom of sanding unit. (Fig 3)
5. With one or two helpers, place sanding unit on stand or bench. (Sanding unit can be lifted using a harness through the main shroud.) Attach securely to the stand (or bench) using the four included 3/8" bolts and washers. Bolts are inserted from the bottom of stand, up into base of sander (bottom up).
6. Install knob to height adjustment handle, finger tighten nut to knob. Thread stud from knob into hand wheel (Fig 4A). Tighten nut against handwheel.
7. Using handle, raise sanding head to high position and remove packing block from under carriage arm and motor, if so equipped. (Fig 4)
8. Remove conveyor from packaging and place on sanding unit. The conveyor motor should be near main motor and depth gauge.
9. Install a flat washer, lock washer and nut on each of the two studs on outboard side of conveyor. Finger tighten nuts.
10. Install lock washer and flat washer onto two socket head (or hex head bolts) and install into flange of conveyor bed on inboard (motor side). Keep support plate in place on inboard side and make sure "fast lever" is positioned up. Fig. 4B
11. Tighten all four nuts and bolts.

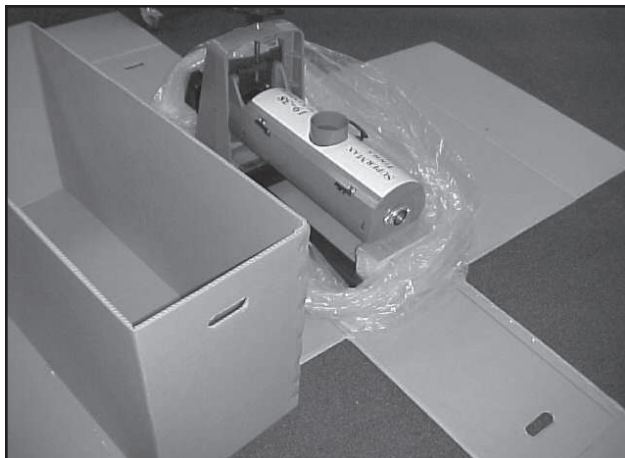


Fig. 2 Open plastic, remove liner, cut box

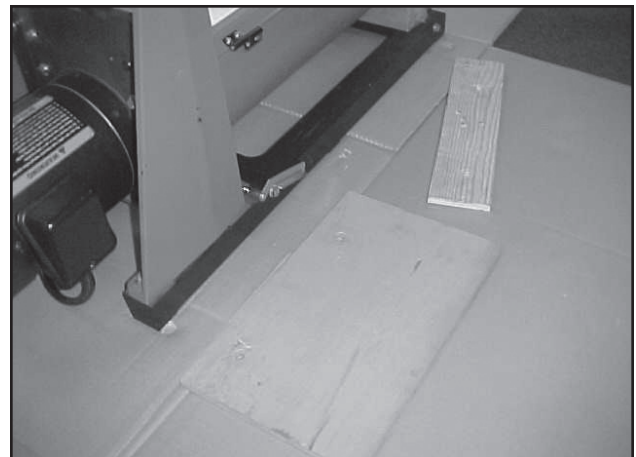


Fig. 3 Remove packing plates



Fig. 4 Secure to stand, remove packing block

SETTING UP YOUR SUPERBRUSH

Your 25-50 Drum sander was adjusted and aligned at the factory, and it has been carefully packed for shipment. However, because of possible stress during transit, the unit should be thoroughly checked before being put to use. This section covers the preoperational checks you should make after unpacking and final assembly. Unnecessary problems can be avoided if these essential checks are performed before operating. Likewise, performing the recommended monthly maintenance procedures (page 10) will help assure trouble-free service.

CONNECTING DUST COLLECTORS

Dust collection is necessary for all models. The 25-50 is equipped with one 4" diameter dust exhaust port at the top of the cover.

To attach to your collection system, install 4" hose from your collector. (See Tips For Maximum Performance, page 10 of this manual.) The minimum recommended dust collector capacities is 800 cfm. For best results, follow the recommendations of the manufacturer of your dust collection equipment. NOTE: Some applications will require more dust collection than the recommended minimum CFM.

CHECKING MACHINE FOR LEVEL

Proper leveling of the machine is important to achieve continued maximum performance from the 25-50 Drum Sander.



Fig. 4A Install knob

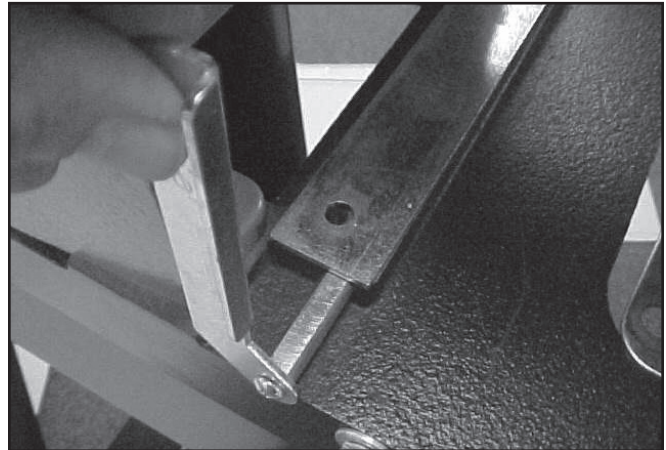


Fig. 4B FAST Lever "UP"

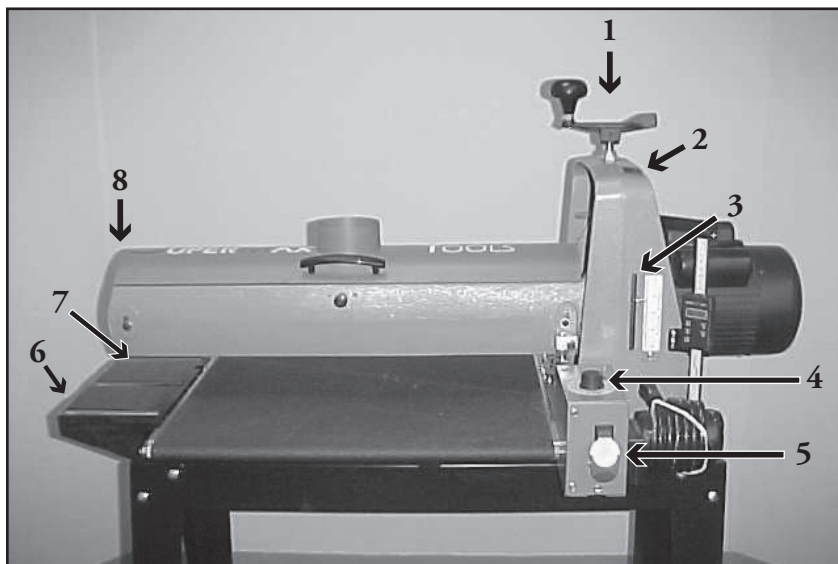


Fig. 5 Components

Fig. 5 SUPERMAX Components.

1. Height Adjustment Handle
2. Shroud
3. Depth Gauge
4. Conveyor Speed Adjustment
5. Drum ON/OFF Switch
6. Conveyor Table
7. Tension Rollers
8. Drum Carriage

HEIGHT ADJUSTMENT

The drum height is controlled by the height adjustment handle (Fig.5). Turning the handle raises or lowers the sanding head. One revolution of the handle raises or lowers the head 1/16 of an inch.

Before operating height adjustment, be sure the packing-block is removed. It is located under the outboard end of the carriage arm (Fig. 4). Raise drum to remove.

DRUM ALIGNMENT

Check alignment when using sanding drum. Remove abrasive from drum. Using a flat piece of wood or aluminum as a thickness gauge, insert it between the conveyor belt and the drum on the right (inboard) side of the machine (Fig. 5). Lower the sanding head so the drum just contacts the thickness gauge. Then, holding up the front tension roller, check both sides of the drum using the thickness gauge. If the drum is not parallel, loosen the four socket head cap screws (along the outboard edge of the conveyor) (Fig. 7) and raise or lower the conveyor with the 7/16" adjustment nut to achieve parallel alignment. Tighten the four socket head cap screws.

TABLE EXTENSION ATTACHMENT

Attach table extension (Fig 7, 8A) using two 5/16 x 1" socket head cap screws, two lock washers and two flat washers. Finger tighten. Align top of cast iron extension table with top of steel conveyor bed. Tighten the two socket head cap screws.

Align table extension rollers with top of conveyor belt. Loosen the two small hex bolts holding the bracket for the support rollers. The rollers should be level with or slightly below the surface of the conveyor belt. It is important to keep the surface of the rollers at or below the height of the conveyor belt

CHECKING CONVEYOR BELT TRACKING

Conveyor belt tracking adjustments may occasionally be necessary during break-in and normal operation to compensate for belt stretching. If adjustments are necessary, follow these instructions: Belt tracking adjustments are made while the conveyor belt is running. With the conveyor unit on and set at the fastest speed setting, watch for a tendency of the

conveyor belt to drift to one side of the conveyor. To adjust the belt tracking, tighten the take-up screw nut (Fig. 8 & 9) on the side the belt is drifting toward, and loosen the take-up screw nut on the opposite side. Adjusting the take-up screw nuts on both sides of the conveyor allows belt tracking adjustments to be made without affecting belt tension. Adjust the takeup screw nuts only 1/4 turn at a time. Then allow time for the belt to react to the adjustments before proceeding further. Try to avoid over-adjustments. NOTE: Make sure wrench is below surface when brushing or sanding.

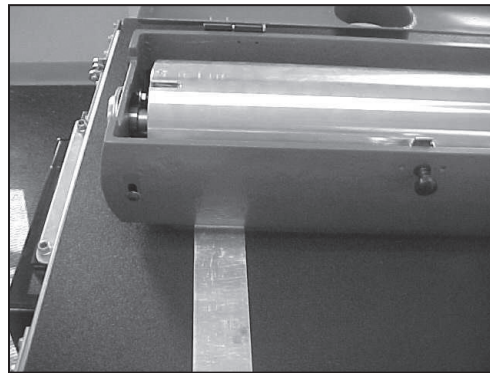


Fig. 6 Checking drum alignment and table height adjustment (outboard side).

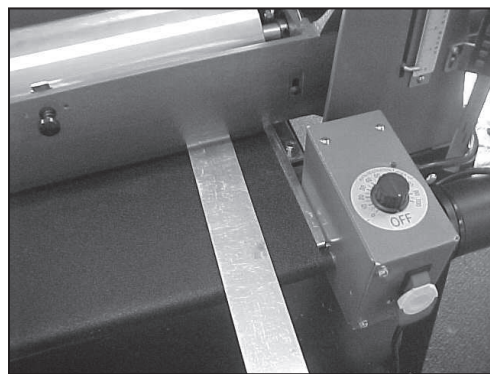


Fig. 6A Checking drum alignment (inboard side).



Fig. 7 Adjusting drum alignment.

OPERATING YOUR 25-50 DRUM SANDER

Before using your Sander, review the previous pages in this manual on initial set-up and adjustment. In this section, you will learn how to operate the machine. Note that connecting the machine to an adequate dust collection system is necessary before operating the unit.

The SUPERMAX Drum Sanders offer considerable control and versatility through variable feed rates and abrasive selections. Experiment with both to find the proper sander performance for a given application.

BASIC OPERATING PROCEDURES

After you have connected the machine to a dust collection system, you are ready to begin to use the SUPERMAX. The basic operating procedure for the SUPERMAX models is as follows:

1. Set depth of cut (page 9).
2. Start sanding drum.
3. Start conveyor and select feed rate (page 10)
4. Start dust collector system.
5. Feed stock through unit.

To feed stock through the SUPERMAX, rest and hold the stock to be sanded on the conveyor table, allowing the conveyor belt to carry the stock into the drum. Once the stock is halfway through, reposition yourself to the outfeed side of the machine to receive and control the stock as it exits the unit.

TENSION ROLLER ADJUSTMENT

Spring loaded infeed and outfeed Tension Rollers (Fig. 11 & page 22) are provided to maintain downward pressure on stock being sanded and to prevent slippage of the stock on the conveyor. When properly set, the Tension Rollers should engage or raise up about 1/8" to accommodate the stock being sanded.

TENSION ROLLER PRESSURE

The tension roller pressure is factory set for most applications. However, the pressure of each roller can be adjusted. Caution, too little pressure can result in slippage of stock on conveyor belt or kick-back. Too much tension can cause snipe when drum sanding.

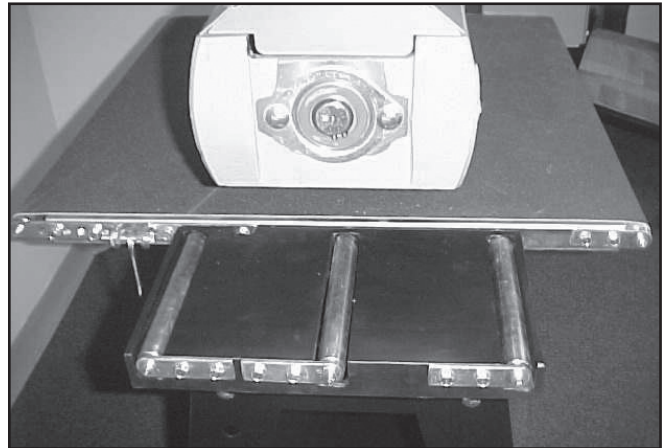


Fig. 8A Table Extension attachment.

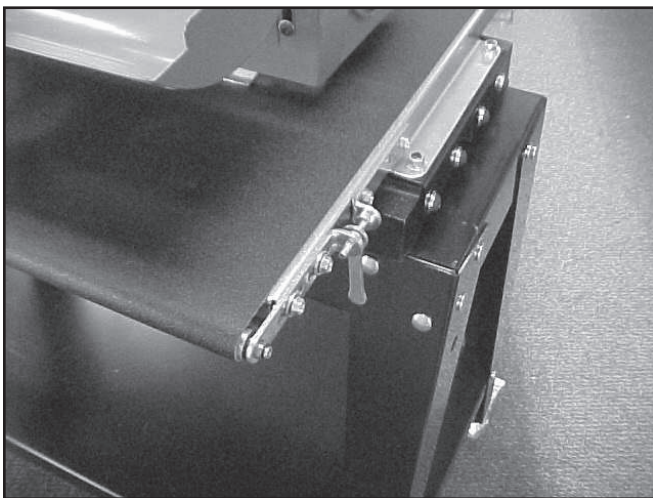


Fig. 8 Hanging wrench, 1 of 2, for tracking conveyor

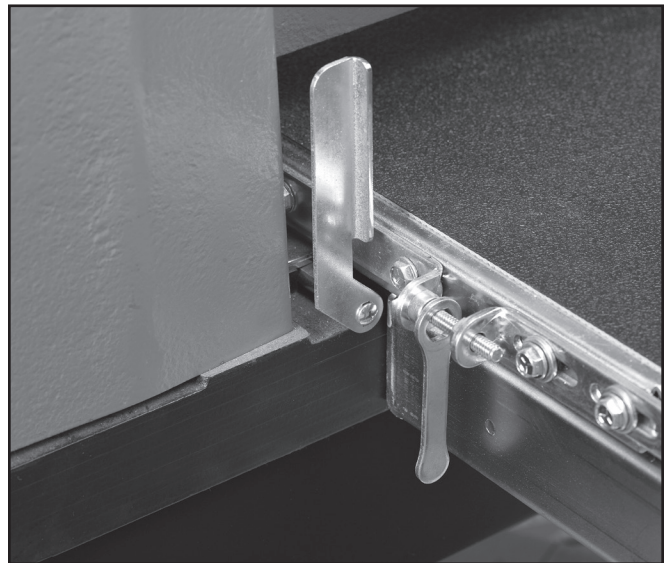


Fig. 9 Hanging wrench 1 of 2, for tracking conveyor

To increase tension turn the tension adjusting screw clockwise $\frac{1}{4}$ revolution at a time. To decrease tension turn the adjusting screw counter-clockwise $\frac{1}{4}$ revolution at a time. (See Fig 11).

TENSION ROLLER PRESSURE

The tension rollers are factory set for the most versatile use.

Flat Surfaced Stock: If necessary to adjust tension roller contact, loosen the four socket head screws holding the tension roller brackets (Fig. 11 & 11A). Have abrasive wrapped on drum. With machine unplugged, lower sanding drum until it rests on conveyor belt. Raise drum 2 to 3 revolutions. Tighten the four socket head screws. Raise drum up, off of conveyor belt. Set drum for proper sanding height (page 11) and process stock.

CONVEYOR FEED RATES

Selecting the proper feed rate is essential to proper finish sanding. For finish sanding the best finish is usually achieved with a slow to moderate feed rate, after the proper depth of cut has been determined. This allows for the most revolutions of the drum per inch of sanding. When abrasive planning, faster feed rates can be used as long as the machine is not overstressed. Note, angling stock (Fig. 13) as it is sanded will allow the most effective stock removal and least loading of the abrasives. Feeding stock straight through yields the widest sanding capacity and least noticeable scratch pattern.

Please note; INTELLISAND will automatically adjust the conveyor feed rate if an excess load is detected. This

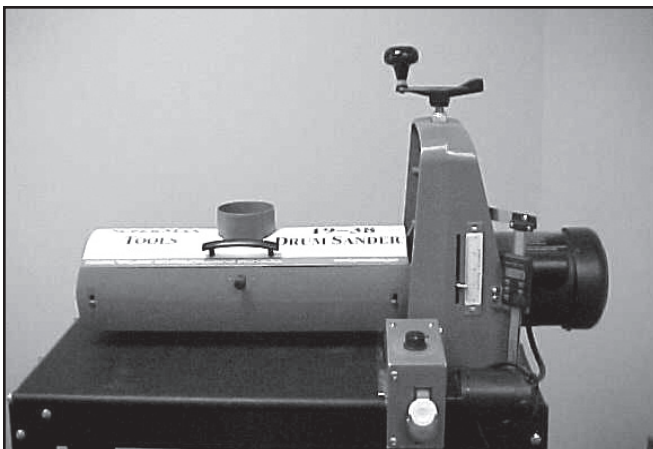


Fig. 10 Operating controls.

prevents excessive gouging, reduces the risk of burning and protects the machine from overload or stalling. The red light by the adjustment knob will come on when INTELLISAND is operating. (Fig. 11A) When the load is decreased, INTELLISAND will automatically increase the feed rate to the pre-selected speed.

When finish sanding with grits finer than 80, the best finish can usually be obtained if INTELLISAND does not engage. If INTELLISAND does slow the conveyor when finish sanding, it is usually best to make another sanding pass without changing the thickness setting and sanding again.

SETTING DRUM DEPTH OF CUT

Determining the depth of cut is the most IMPORTANT set-up procedure before operating a drum sander. It may take some experimentation to determine the proper depth of cut, given the variables of abrasive grit, type of wood, and conveyor feed rate. Practicing on scrap before sanding a project can be beneficial.

A good rule-of-thumb when sanding is to place the workpiece under the drum and lower the sanding head until the workpiece contacts the drum but the drum can still be rotated by hand. When making successive passes, lower the sanding head no more than the thickness of the grit abrasive, I.e. $\frac{1}{8}$ - $\frac{1}{16}$ of a turn for 80 grit and less for finer grits. **Note:** one revolution of the height adjustment handle moves the sanding head $\frac{1}{16}$ ".

USING THICKNESS GAUGE

Another method to set depth of cut is to use the thickness gauge attached to the inboard (right) side of the drum carriage (Fig 14). The gauge must be adjusted to the same height as the sanding drum with the desired abrasive. Place a flat piece of scrap stock under sanding drum and lower drum until abrasive lightly touches scrap. Without changing drum height, place scrap stock under thickness gauge. Adjust bottom of gauge by loosening large nut and rotating gauge up or down until it lightly touches scrap. Tighten the large nut. Now stock can be placed under the thickness gauge and the drum lowered until the gauge lightly touches the stock to be sanded. Thus stock does not need to be carried under the drum to set depth of cut.

DEPTH GAUGE OPERATION

The depth gauge (see Fig. 5) measures the distance between the conveyor table and the bottom of the sanding drum. The sanding head must be parallel to the conveyor bed surface. To calibrate the depth gauge, loosen the two screws holding the scale. Lower the drum (with abrasive installed) until the head touches the conveyor belt. Slide the scale to align with the pointer at the "0" mark. Tighten the two screws holding the scale. An optional DRO (digital read out) for depth is available. Fig. 12. This offers the most precise reading of sanded thickness and allows for accurate repeatability of a thickness. Great when making parts that must be an exact thickness or when matching a thickness.

To operate, turn ON and select standard inch "in" or metric millimeter "mm". Lower drum, with abrasive installed, until it touches the conveyor belt. Press "zero" button to calibrate.

MONTHLY MAINTENANCE

For best results, perform the following recommended maintenance procedures on a monthly basis:

- Lubricate conveyor bushings and check for wear.
- Lubricate all moving parts, such as threaded rods and washers
- Clean dust from the conveyor belt.
- Blow dust from the motors.

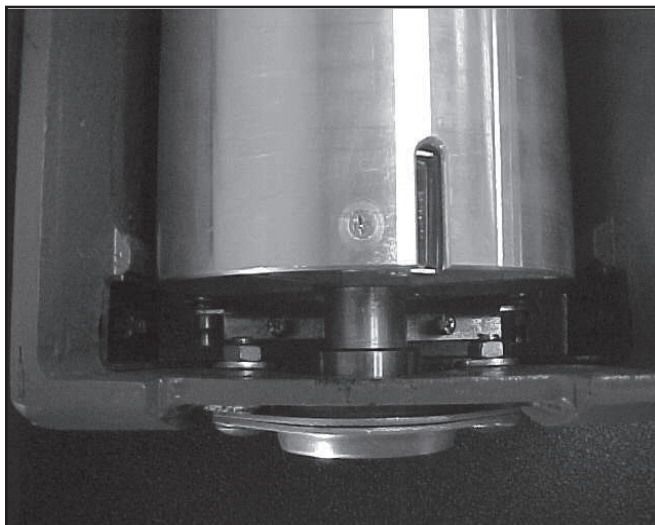


Fig. 11 Tension rollers adjustment

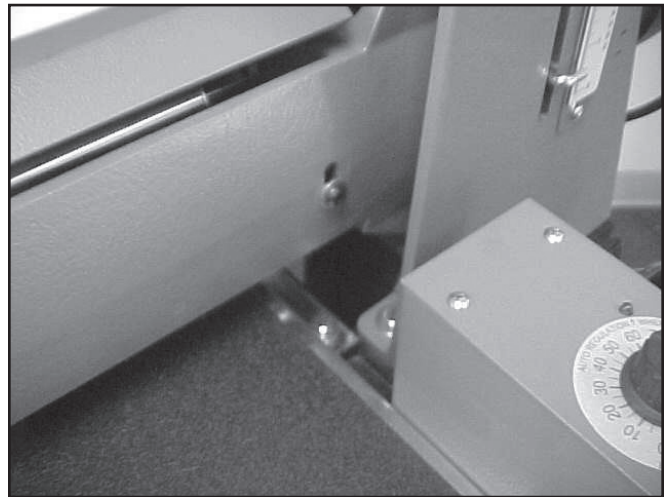


Fig. 11A Tension roller height and depth gauge adjustment

- Check all set screws for tightness.
- Clean drum and abrasives, if applicable.

TIPS FOR MAXIMUM PERFORMANCE

The versatility designed into the 25-50 Drum Sander allows it to be used for a wide-ranging variety of tasks that will boost the return on your investment. Learning to use its multiple adjustments and controls will allow you to fine-tune the machine for maximum results, regardless of the job to be done. The best results come from experimenting with different machine adjustments to fit the job at hand. Following is a listing of useful tips which can help you improve performance of your brush sander.

Dust Collection. When connecting dust collectors, remember that straight pipe will not restrict airflow as much as flexible tubing. Also, Ys and elbows will restrict airflow less than Ts.

Brushing Multiple Pieces At Once. When sanding multiple pieces simultaneously, make sure to stagger (step) the pieces across the width of the conveyor belt. This provides better contact with the tension rollers. Try to only process multiple pieces of similar thickness. If there is a thickness difference, the thinner pieces can slip on the conveyor belt if they do not contact the tension rollers. When sanding high or tall stock, special care is needed to prevent tipping and slippage.

Sanding Imperfect Stock. To avoid personal injury, take special care when sanding stock that is twisted, bowed, or otherwise varies in thickness from end to

end. If possible, support such stock as it is being sanded to keep it from slipping or tipping. Use extra roller stands, help from another person, or hand pressure on the stock, to minimize potentially hazardous situations.

Stock Feeding Angle. Some pieces, because of their dimensions, will need to be fed into the machine at a 90° angle (perpendicular to the drum). However, even a slight offset angle of the stock can provide for more effective sanding on most stock (Fig. 13).

Keeping the Machine Clean. For best results, make cleaning the machine a regular shop procedure. Allowing excess build-up of dust and debris can adversely affect performance, slippage on the conveyor belt, and/or the accumulation of material in the drum which can throw off the center of balance. Leave the dust collector on when cleaning dust from the drum. Sweep the conveyor belt after cleaning operations. If not cleaned, the conveyor belt could allow stock to slip during operation.

Sanding Stock wider than drum: The 25-50 sander is equipped with a “Fast Lever” (Fig 4B pg 6) adjuster mechanism that allows easy changing of the drum alignment in relationship to the conveyor without changing the initial drum alignment.

The “Fast Lever” is very useful when sanding stock wider than the drum. Sanding stock wider than the drum may require extra space between the drum and the conveyor along the outboard edge. The extra space helps prevent an overlap line or ridge from developing along the sanded part when it extends beyond the sanding drum.

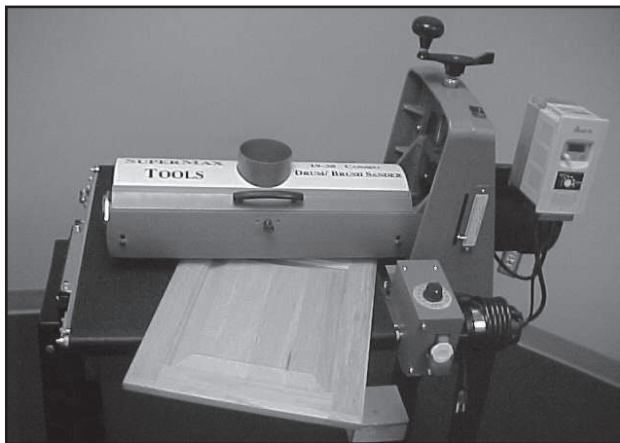


Fig. 13 Offset stock feeding angle.

To operate, loosen the two bolts through the flange of the conveyor on the inboard side (motor side) of the conveyor bed. Flip “Fast Lever” down 90° (Fig 15A pg 12). Tighten the two bolts through the flange of the conveyor bed. It is a good idea to test a scrap piece before sanding good stock. If a line or ridge is still visible after adjusting “Fast Lever” additional adjustments can be made to the initial drum alignment (Page 7).

To sand stock narrower than the drum, reverse the previous steps making sure the “Fast Lever” is in the UP position (Fig. 4B) and bolts are tight in flange of conveyor bed on inboard side.

WARNING: Do Not Re-wire machine to 220 volt

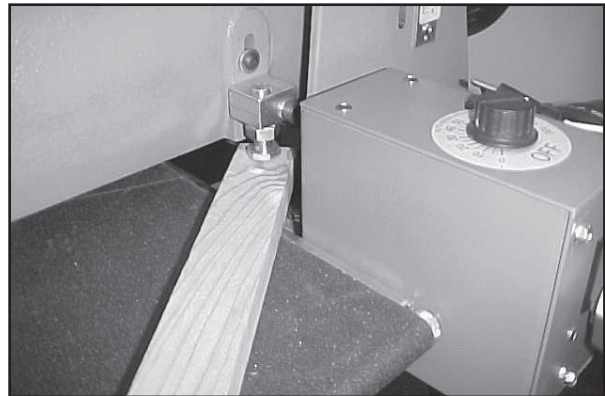


Fig. 14 Thickness gauge.



Fig. 12 Depth Gauge and optional DRO

ABRASIVE SELECTION GUIDE

GRIT COMMON APPLICATION

24 Grit	Abrasive planing, surfacing rough-sawn boards, maximum stock removal, glue removal.
36 Grit	Abrasive planing, surfacing rough-sawn boards, maximum stock removal, glue removal.
50 Grit	Surfacing and dimensioning boards, trueing warped boards.
60 Grit	Surfacing and dimensioning boards, trueing warped boards.
80 Grit	Light dimensioning, removal of planer ripples.
100 Grit	Light surfacing, removal of planer ripples.
120 Grit	Light surfacing, minimal stock removal.
150 Grit	Finish sanding, minimal stock removal.
180 Grit	Finish sanding only, not for stock removal.
220 Grit	Finish sanding only, not for stock removal.

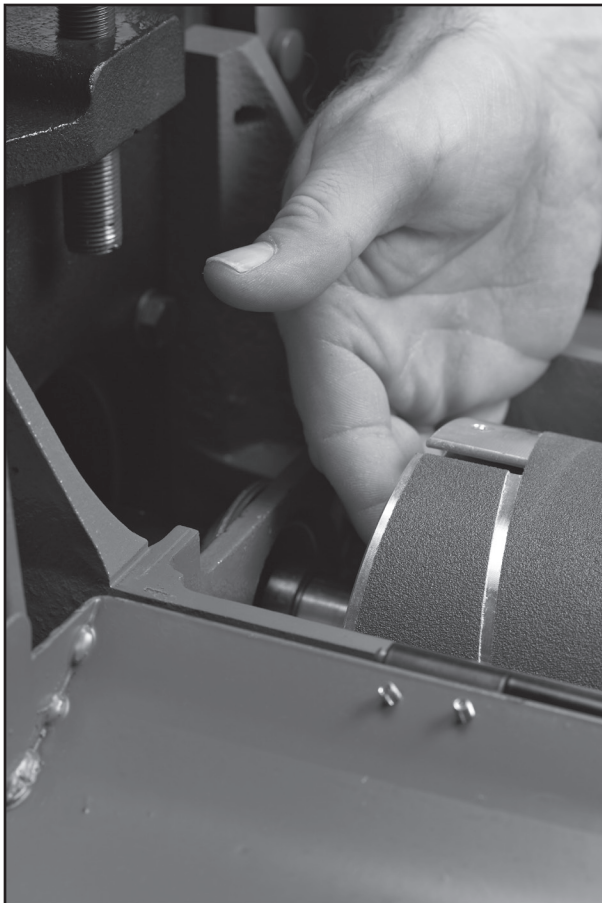


Fig. 15 Accessing inboard abrasive fastener

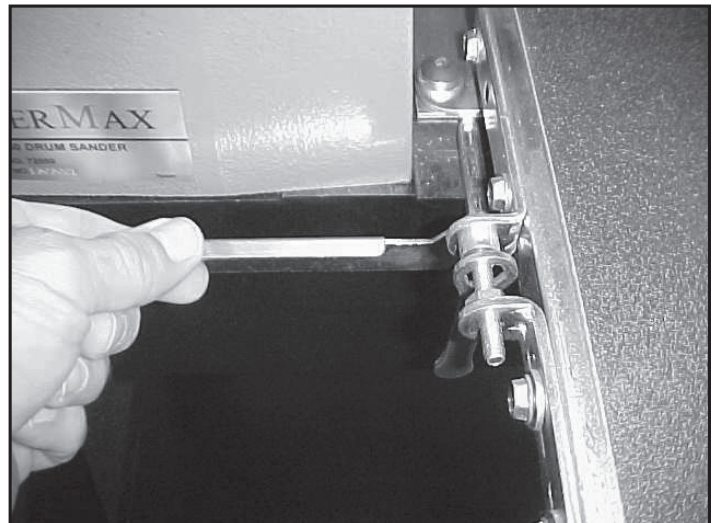


Fig. 15A "Fast Lever" down.

WRAPPING ABRASIVE STRIPS

Note: When using Pre-Marked™ or Pre-Cut™ abrasives, not all of the steps below are necessary.

Proper attachment of the abrasive strip to the drum is critical to achieving top performance from your SUPERMAX Tools drum sander. Abrasive strips do not have to be pre-measured. The end of the roll is first tapered and attached to the left (outboard) side of the drum. Then the strip is wrapped around the drum, and the second taper is made for attachment to the right (inboard) side of the drum. To attach a strip to the drum, follow the procedure below.

1. Mark and cut a taper at one end of the roll as shown in Fig. 16. Because the tapered end should use most of the left (outboard) slot width, its end must be trimmed (Fig. 16B and 16C). Raise the clip lever on the left (outboard) side of the drum (Fig. 16D). Insert the tapered end through the slot and into the fastener so that it uses most of the width of the slot. Release the clip lever to securely hold the strip end in the fastener.
2. Wrap the strip around the drum, being careful not to overlap the windings. The tapered cut of the strip end should follow the edge of the drum. Continue to wrap the abrasive in a spiral fashion by rotating the drum with your left hand and guiding the strip with your right hand (Fig 16E). Successive windings of the strip should be flush with previous windings without any overlap.
3. Mark the trailing end of the strip where it crosses the right (inboard) end of the drum (Fig. 16F). From this point, cut a taper as was done with the starting edge of the strip. (The taper on the remaining roll can be used as the taper for the starting edge of the next strip to be cut.)
4. With the trailing edge of the strip properly cut, rewrap the drum and insert the tapered end through the slot in the right (inboard) end of the drum. Insert the tapered end into the inboard take-up fastener. Pull up on the clip lever to open the clip, and pull the take-up lever to the top as shown (Fig. 16G). After inserting the strip end, release the clip lever by moving your index finger toward the drum slot. This allows the clip to retain the abrasive while holding the take-up lever in an “up” position.
5. The take-up fastener is designed to automatically take up any slack caused by stretching of the abrasive strip. *Important: Position the abrasive strip in the slot with sufficient room between the inside of the slot and the tapered end of the strip to allow it to be pulled into the drum as needed (Fig. 16H). Note that not leaving enough space between the strip and the inside of the slot will prevent the take-up fastener from operating properly.*
6. The abrasive strip may stretch enough in use to allow the take-up lever to reach its lowest position so it no longer is able to maintain tension on the strip (Fig. 16I). If this occurs, it will be necessary to reset the take-up lever by raising it, pushing the strip end into the slot, and then releasing the clip lever.

Note: A sandpaper cleaning stick may be used to remove deposits and help extend sandpaper life. To use, operate the sanding drum with the dust cover open. (**Caution:** For your own safety, always wear eye protection while performing sandpaper cleaning, and take all precautions to avoid any contact of hands or clothing with uncovered drums.) Hold the cleaning stick against the rotating drum and move it along the drum surface. It is good procedure to use a shop brush to remove any cleaning stick crumbs from the drums before resuming sanding operations.

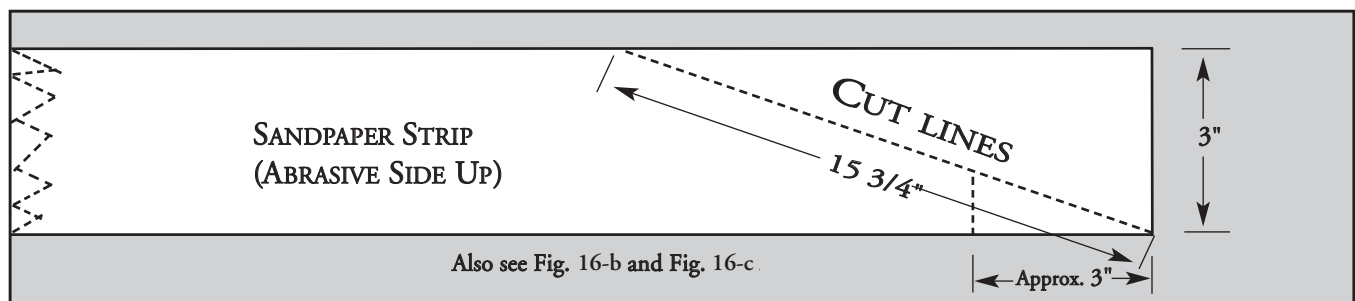


Fig. 16 Marking and cutting taper on strip.

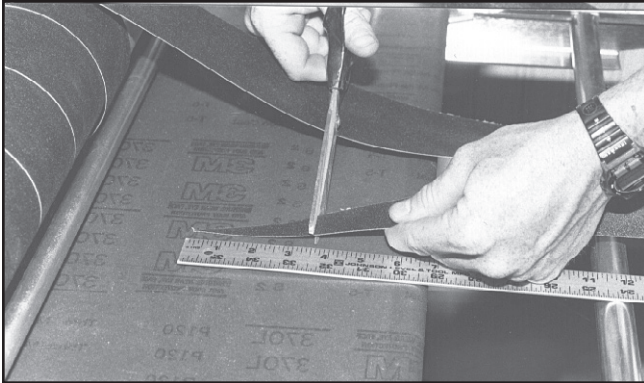


Fig. 16B Trim about 3" from end of cut taper.

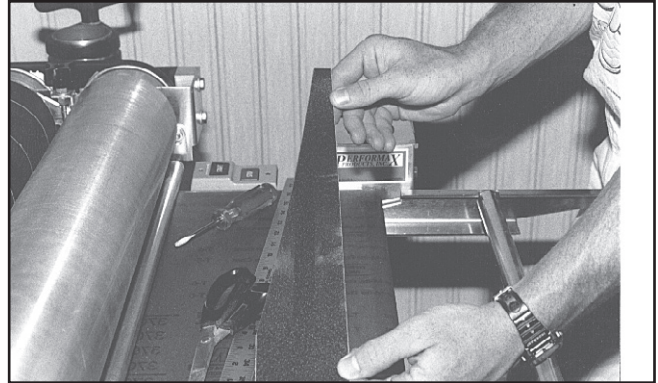


Fig. 16C Trimmed tapered end ready to install.

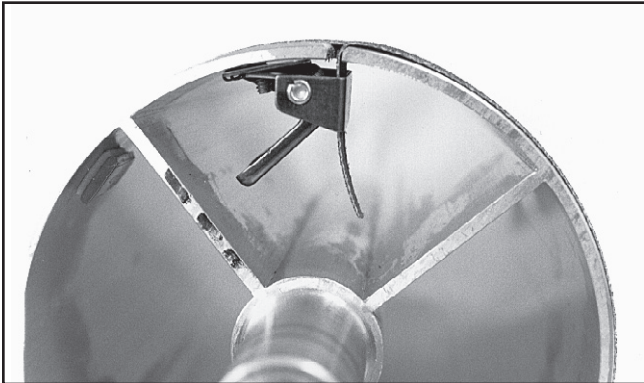


Fig. 16D Insert tapered end into outboard slot.

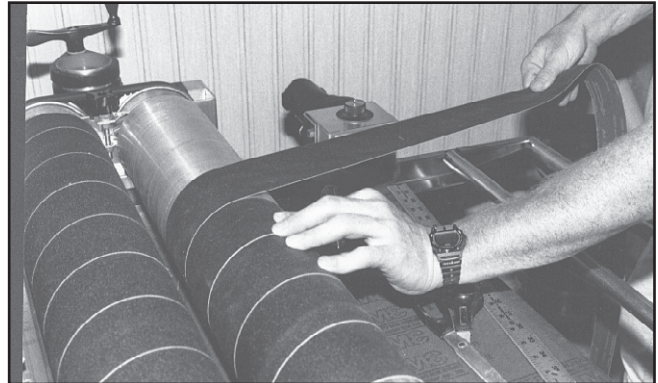


Fig. 16E Wrap strip around drum without overlap.

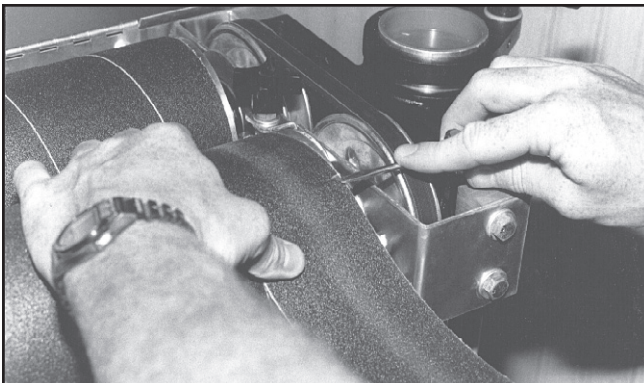


Fig. 16F Mark strip where it crosses drum edge.

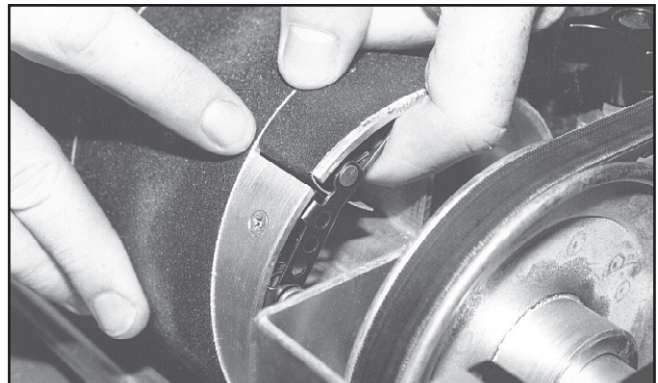


Fig. 16G Insert tapered end into inboard slot.

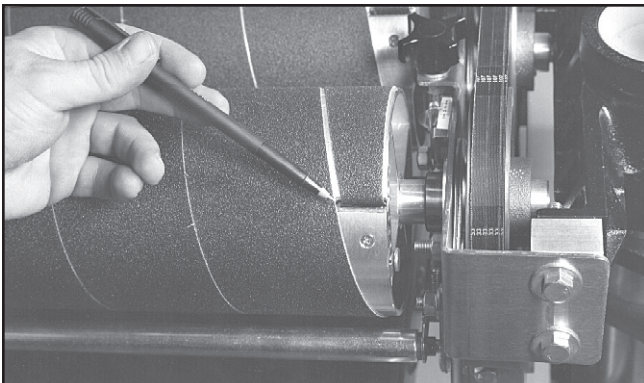


Fig. 16H Allow room inside slot for strip to move.

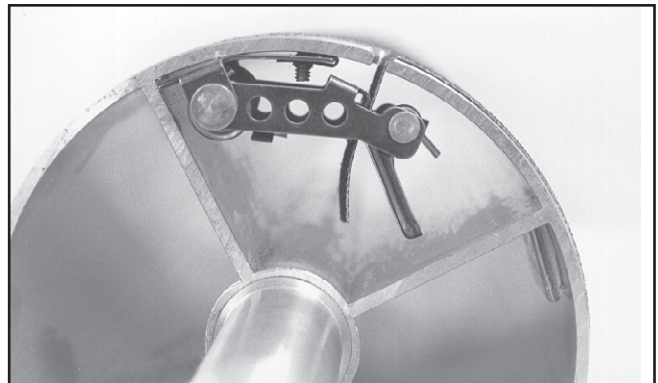


Fig. 16I Reset take-up as needed as strip stretches.

REPLACING CONVEYOR BELTS

To replace the conveyor belt, the conveyor assembly must be removed from the machine. Raise the drum carriage to its highest position using the height adjustment handle. Turn off power source to machine. Unplug main drive motor from receptacle (in gear motor assembly). Loosen the conveyor take-up screws (Fig. 8, 9) to relieve belt tension and slide the driven roller fully inward. Remove the two bolts (inboard side) that attach the conveyor assembly to the base (see Fig. 11A & 17). Remove the two nuts and washers (outboard side) (Fig. 7 & 18). Lift the conveyor and remove it from the sander. Stand conveyor on motor side. Avoid tearing the belt on any edges underneath the conveyor bed during removal. Reverse the procedure for re-installation. Re-install the conveyor bed to sander.

Conveyor Belt Tension: To adjust the tension of the conveyor belt, first adjust the take-up screw nut (Fig. 8, 9) on both sides of the conveyor to obtain approximately equal tension on both sides of the belt when taut. Insufficient belt tension will cause slippage of conveyor belt on the drive roller during sanding operation. The conveyor belt is too loose if it can be stopped by hand pressure applied directly to the top of the conveyor belt. Excessive belt tension can result in bent rollers, premature wearing of the bronze bushings or conveyor belt

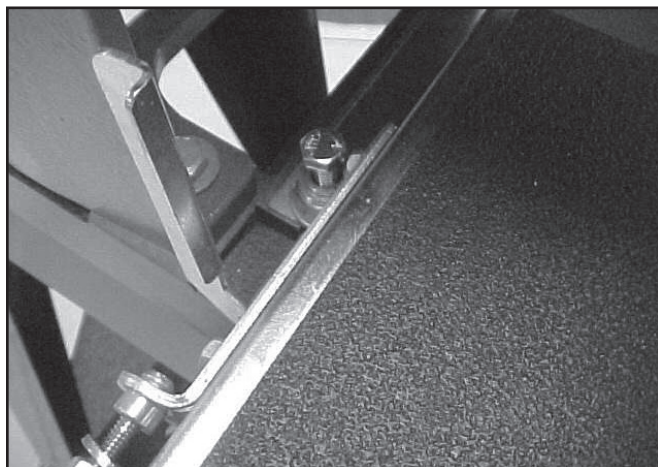


Fig. 17 Inboard conveyor attachment bolts.

Conveyor Belt Tracking: Belt tracking adjustments are made while the conveyor belt is running. After the proper belt tension is obtained (see above), turn the conveyor unit on and set it at the fastest speed setting. Watch for a tendency of the conveyor belt to drift to one side of the conveyor. To adjust the belt tracking, tighten the take-up screw nut (Fig. 8, 9) on the side the belt is drifting toward, and loosen the take-up screw nut on the opposite side. Adjusting the take-up screw nuts on either side of the conveyor allows belt tracking adjustments to be made without affecting belt tension. Note: Adjust the take-up screw nuts only 1/4 turn at a time. Then allow time for the belt to react to the adjustments before proceeding further. Avoid over-adjustments.



Fig. 18

TROUBLESHOOTING YOUR SUPERBRUSH

Any operating problems with the SUPERMAX will likely occur most often during the period that you are becoming familiar with its components and their adjustments. If you are experiencing a problem affecting the machine's brushing performance,

check the following listings for potential causes and solutions; it may also pay to review the previous sections in this manual on setting up and operating your machine.

TROUBLESHOOTING GUIDE: MOTORS

PROBLEM	POSSIBLE CAUSE	SOLUTION
Motors do not start.	1. Main power cord unplugged from receptacle.	Plug in primary power cord.
	2. Drum motor cord unplugged from receptacle near power-feed motor.	Plug in drum motor cord at receptacle on machine if so equipped (Fig. 5).
	3. Circuit fuse blown or circuit breaker tripped.	Replace fuse or retrip breaker (after determining cause).
Drum motor overloads.	1. Inadequate circuit.	Check electrical requirements
	2. Machine overloaded.	Use slower feed rate; reduce depth of cut.
Conveyor motor oscillates.	1. Motor not properly aligned.	Loosen housing bolts, run motor, retighten bolts.
	2. Shaft collar or bushing worn.	Replace shaft collar or bushing
	3. Drive roller bent.	Replace drive roller
Drum motor or conveyor gear motor stalls.	1. Excessive depth of cut.	Reduce depth of cut; reduce feed rate.

TROUBLESHOOTING GUIDE: CONVEYOR

PROBLEM	POSSIBLE CAUSE	SOLUTION
Conveyor rollers run intermittently.	1. Shaft coupling loose.	Align shaft flats of gear motor and drive roller; tighten shaft coupling set screws.
Conveyor belt slips on drive roller.	1. Improper conveyor belt tension. 2. Excessive depth of cut.	Adjust belt tension (page 15). Reduce depth of cut; reduce feed rate.
Stock slips on conveyor belt.	1. Excessive depth of cut. 2. Tension rollers too high. 3. Excessive feed rate. 4. Dirty or worn conveyor belt.	Reduce depth of cut. Lower tension rollers (page 8-9). Reduce feed rate. Clean or replace conveyor belt.
Conveyor belt tracks to one side, or oscillates from side to side.	1. Belt out of adjustment. 2. Drive or driven conveyor belt rollers misaligned. 3. Conveyor table not flat and square. 4. Conveyor belt worn. 5. Drive roller worn or damaged. 6. Roller bushings elongated due to excessive wear.	Readjust belt; (page 15). Readjust Readjust by leveling machine Replace conveyor belt (page 15). Replace drive roller. Replace bushings.

TROUBLESHOOTING GUIDE: MACHINE

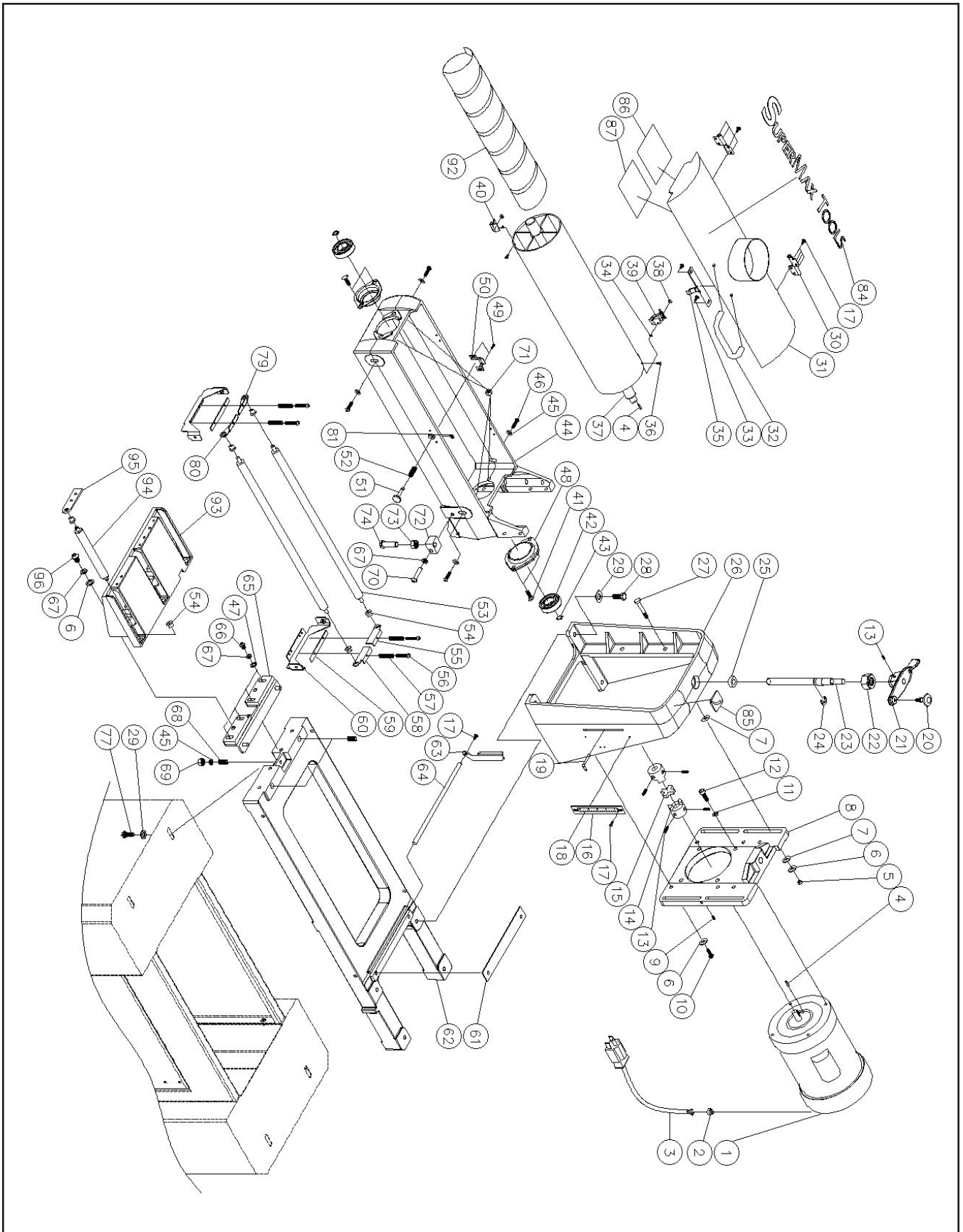
PROBLEM	POSSIBLE CAUSE	SOLUTION
Drum height adjustment works improperly.	1. Improper adjustment of height control.	Readjust height control
Knocking sound while running.	1. Bearing worn.	Replace bearing Contact dealer
Sniping of wood (gouging near end of board).	1. Inadequate support of stock.	Use roller stands to support stock.
	2. Conveyor drive or driven rollers higher than conveyor bed.	Readjust rollers
	2. Excessive tension roller pressure	Adjust rollers (page 8-9)
Burning of wood. or melting of finish	1. Feed rate too slow.	Increase feed rate.
	2. Excessive depth of cut	Reduce depth of cut,
Gouging of wood.	1. Conveyor belt is too loose.	Adjust belt tension.
	2. Excessive depth of cut.	Reduce depth of cut.
	3. Wood slipping on conveyor due to lack of contact.	Use alternate feeding procedure

HEAD ASSEMBLY

Index No.	Part No.	Description	Size	Qty.
1	480DS-101	Motor		1
	480DS-101MFC	Motor Fan Cover		1
2	480BS-134	Strain Relief, motor	7N-2	1
3	480DS-103	Main Cord, Motor to Control Box		1
4	480BS-104	Key	3/16"SQx3/4"	2
5	480BS-105	Nylon Insert Lock Nut	5/16"-24	4
6	480BS-106	Flat Washer	5/16"	10
7	480BS-107	Oilite Washer		8
8	480BS-108	Motor Plate		1
9	480BS-109	Set Screw	#8-32x1/4"	1
10	480BS-110	Hex Cap Screw	5/16"-18x1-1/4"	6
11	480BS-111	Lock Washer	3/8"	4
12	480BS-112	Socket Head Cap Screw	3/8"-16x1-1/2"	4
13	480BS-113	Set Screw	1/4"-20x1/4"	5
14	480BS-114	Couping		2
15	480BS-115	Couping Spider		1
16	480BS-116	Height Plate		1
17	480BS-117	Screw, Phil Pan Head	M4x0.7x6	11
18	480BS-118	Label, Depth Gauge (inch)		1
19	480BS-119	Depth Gauge Pointer		1
20	480BS-120	Knob		1
21	480BS-121	Height Adjustment Handle		1
22	480BS-122	Nylon Insert Lock Nut	5/8"-11	1
23	480BS-123	Height Adjustment Screw		1
24	480BS-124	E-Ring	E12	1
25	480BS-125	Thrust Bearing	51103	1
26	480BS-126	Shroud		1
27	480BS-127	Stud		4
28	480BS-128	Hex Cap Screw	3/8"-16x1-1/4"	4
29	480BS-129	Flat Washer	3/8"	8
30	480BS-130	Hinge		2
31	72550-131	Dust Cover		1
32	480BS-132	Handle		1
33	480BS-133	Pan Head Machine Screw	#8x1/2"	2
34	480DS-134	Lock Washer	M3	2
35	480BS-135	Dust Cover Latch		1
36	480DS-136	Phillips Flat Head Screw	M3x0.5x10	2
37	72550-137	Sanding Drum		1
38	480DS-138	Nylon Insert Lock Nut	M3x0.5	2
39	480DS-139	Inboard Abrasive Fastener		1
40	480DS-140	Outboard Abrasive Fastener		1
41	480DS-141	Carriage Bolt	5/16"-18x1"	4
42	480DS-142	Bearing	6205ZZ	2
43	480DS-143	C-Ring	S25	2
44	72550-144	Drum Carriage		1
45	480BS-145	Flat Washer	1/4"	5
46	480BS-146	Round Socket Head Cap Screw	1/4"-20x1"	4
47	480BS-147	Flat Washer	5/16"	4
48	480DS-148	Bearing Seat		2
49	480BS-149	Hex Cap Screw w/ Washer	#10-24x3/8"	2
50	480BS-150	Dust Cover Catch		1

Index No.	Part No.	Description	Size	Qty.
51	480BS-151	Stud		1
52	480BS-152	Spring		1
53	30-1205	Tension Roller		2
54	480BS-154	Bushing, Oilite		10
55	480BS-155	Tension Roller Bracket, Inner Left		1
56	480BS-156	Screw	#8-32x1"	4
57	480BS-157	Spring, Tension Roller		4
58	480BS-158	Tension Roller Bracket, Inner Right		1
59	480BS-159	Pad, Bracket-Tension Roller		2
60	480BS-160	Bracket		2
61	480BS-161	Plate		1
62	480BS-162	Base		1
63	480BS-163	Adjusting Plate		1
64	480BS-164	Adjusting Rod		1
65	72550-165	Height Adjusting Plate		1
67	480BS-167	Lock Washer	5/16"	7
68	480BS-168	Spring		3
69	480BS-169	Nylon Insert Lock Nut	1/4"-20	1
70	480DS-170	Socket Head Cap Screw	M8x1.25x40	1
71	480DS-171	Hex Nut w/ Washer	5/16"-18	4
72	480DS-172	Localization Block		1
73	480DS-173	Hex Nut	M12x1.75	1
74	480DS-174	Set Bolt		1
77	480BS-177	Hex Cap Screw	3/8"-16x3/4"	4
79	480BS-179	Tension Roller Bracket, Outer Right		1
80	480BS-180	Tension Roller Bracket, Outer Left		1
81	480BS-181	E-Ring	E5	1
84	A01-24-004	Label		1
85	480BS-185	Height Direction Label		1
86	480BS-186	Maintenance Label		1
87	480BS-187	Warning Label		1
92	635DS-273	Abrasive Strip	#80	1
93	72550-193	Extension Table		1
94	72550-194	Roller, Extension Table		3
95	480BS-237	Bracket, Extension Table		3
96	72550-196	Round Socket Head Cap Screw	5/16"-18x1"	6

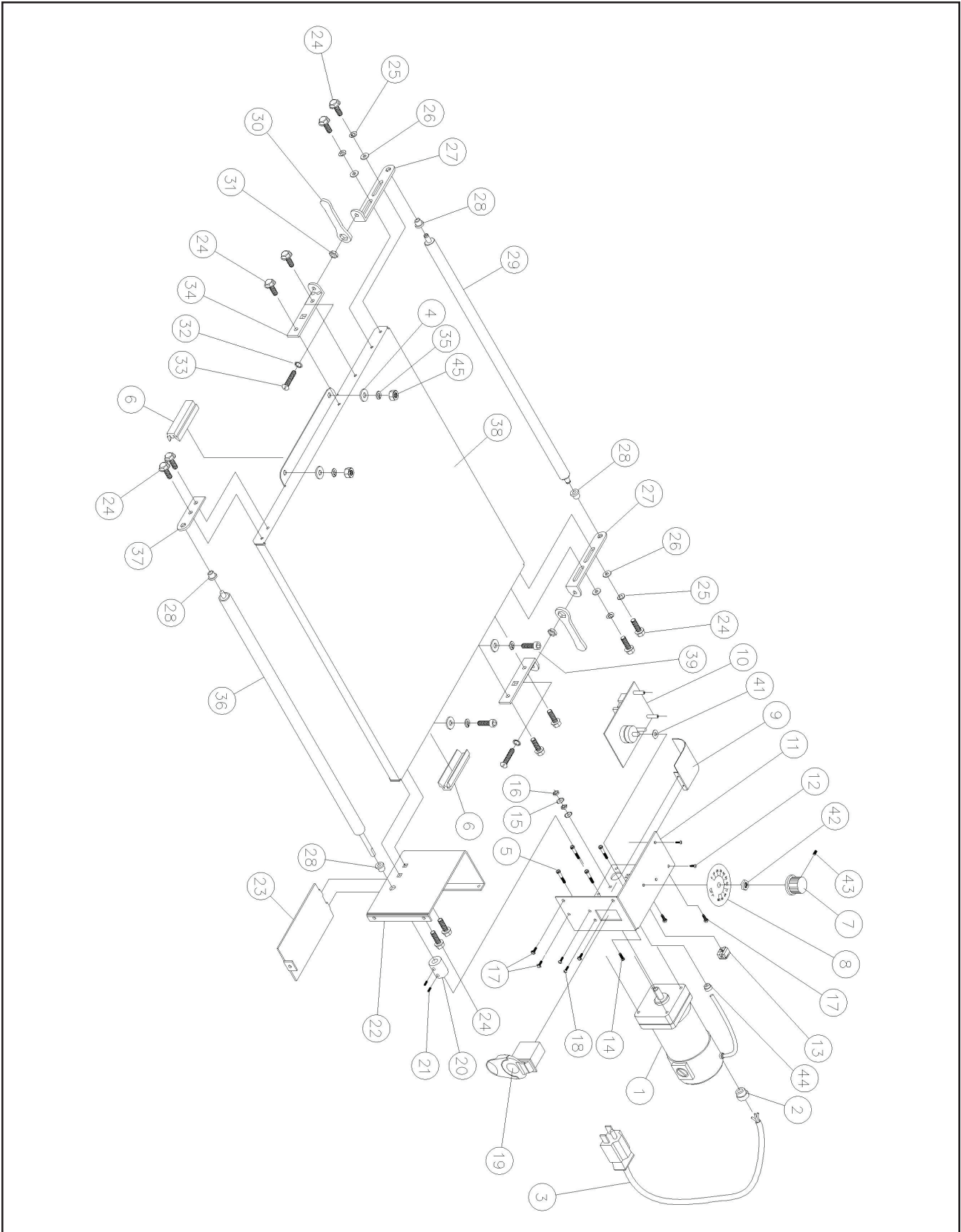
22 25-50 HEAD ASSEMBLY



CONVEYOR & MOTOR

Index No.	Part No.	Description	Size	Qty.
1	480BS-201	Gear Motor	90 VDC	1
2	480DS-202	Strain Relief, Power Cord	6P3-4	1
3	480DS-203	Power Cord		1
4	480BS-204	Flat Washer	5/16"	4
5	480BS-205	Socket Head Cap Screw	#10-32x1/2"	4
6	480BS-206	Tracker Kit (optional)		2
7	480BS-207	Knob		1
8	480BS-208	Speed Adjustment Label		1
9	480BS-209	Wiring Guard		1
10	480DS-210	Controller		1
11	480DS-211	Control Housing Bracket		1
12	480BS-212	Pan Head Self-Tapping Screw	5/32"x1/2"	2
13	480DS-213	Receptacle, Main Cord		1
14	480BS-214	Screw	#10-32x1/2"	1
15	480BS-215	Washer, Lock-Int. Tooth	#10	2
16	480BS-216	Hex Nut	#10-32	2
17	480BS-217	Screw, Hex Head-Slotted	#10-32x3/8"	5
18	480BS-218	Screw, Phil Pan Head	#6-32x1/2"	2
19	480BS-219	Switch, ON/OFF		1
20	480BS-220	Coupler, Shaft		1
21	480BS-113	Set Screw	1/4"-20x1/4"	2
22	480BS-222	Bracket, Base- Controller		1
23	480BS-223	Cover, Base-Control Housing		1
24	480BS-224	Hex Cap Screw	1/4"-20x3/4"	12
25	480BS-225	Washer, Wave	1/4"	4
26	480BS-145	Flat Washer	1/4"	4
27	480BS-227	Bracket, Take Up-Slide		2
28	480BS-154	Bushing, Oilite		4
29	480BS-229	Roller, Driven		1
30	480BS-230	Wrench		2
31	480BS-231	Hex Nut	1/4"-20	2
32	480BS-232	Washer, Lock-Int. Tooth	1/4"	2
33	480BS-233	Screw, Round Head- Slotted	1/4"-20x1-3/4"	2
34	480BS-234	Bracket, Take Up-Base		2
35	480BS-167	Lock Washer	5/16"	4
36	480BS-236	Roller, Drive		1
37	480BS-237	Bracket, Support-Drive Roller		1
38	480BS-238	Bed, Conveyor		1
39	480BS-239	Socket Head Cap Screw	5/16"-18x3/4"	2
40	480DS-240	Belt Conveyor, Abrasive (Not Shown)		1
41	480BS-204	Flat Washer	5/16"	1
42	480BS-242	Hex Nut	5/16"-24	1
43	480BS-243	Slotted Set Screw	#8-36x5/16"	1
44	480BS-244	Strain Relief, Gear Motor	6N-4	1
45	480BS-245	Hex Nut	5/16"-18	2

24 SUPERMAX 25-50 CONVEYOR & MOTOR



25-50 SPECIFICATIONS

Warranty: Two years on parts and labor, limited;
Manufacturer's warranties on conveyor belts, brush heads and abrasives.

Sanding Capacity:	
Maximum Width:	50" (two passes)
Minimum Length:	2-1/4" (varies with application)
Maximum Thickness:	4" typical (varies with application)
Minimum Thickness:	1/32" typical (varies with application)
Dimensions:	Length – 36" Width – 47" Height – 24" without stand
Drum:	5" diameter 1750 RPM
Dust Hood:	Hinged back with 4" vacuum port
Height Adjustment:	1/16" per revolution, Depth Gauge included
Conveyor Motor:	Direct drive D.C. motor Infinitely variable 0–10 feet-per-minute
Drive Motor (TEFC):	1-3/4 HP Continuous-duty
Power Requirements:	110 Volt, Single Phase 20 amp service
Shipping Weight:	277lbs. (<i>weight varies on how equipped</i>) 2 boxes

2 YEAR WARRANTY

Limited warranty. We will provide all replacement parts which are found to be defective in materials or workmanship. Manufacturers' warranties on conveyor belts.

SUPPLY CHECKLIST

25-50 OPTIONS:

ACCESSORIES:

ITEM #	DESCRIPTION	QTY.
71938-CL	Closed Stand, includes locking wheels	
71938-OP	Open Stand	
98-0130	Caster Set: Heavy duty, roll & swivel lock (used with open stand).	
71938-7	Infeed/Outfeed Tables	
71938-DRO	DRO (digital read out) depth gauge	

CONVEYOR BELTS:

ITEM #	DESCRIPTION	QTY.
60-0322	Type 1: 100 grit abrasive surface with reinforced backing	
61-1003	Type 2: Polyurethane textured surface with monofilament backing	

DRUM ABRASIVES:

ITEM #	DESCRIPTION	QTY.
60-25-036	36 Grit: SUPERMAX 25-50 Combo - 3-Wraps in Box	
60-25-060	60 Grit: SUPERMAX 25-50 Combo - 3-Wraps in Box	
60-25-080	80 Grit: SUPERMAX 25-50 Combo - 3-Wraps in Box	
60-25-100	100 Grit: SUPERMAX 25-50 Combo - 3-Wraps in Box	
60-25-120	120 Grit: SUPERMAX 25-50 Combo - 3-Wraps in Box	
60-25-150	150 Grit: SUPERMAX 25-50 Combo - 3-Wraps in Box	
60-25-180	180 Grit: SUPERMAX 25-50 Combo - 3-Wraps in Box	
60-25-220	220 Grit: SUPERMAX 25-50 Combo - 3-Wraps in Box	

For information and supplies
 call SUPERMAX Tools (888) 454-3401 or visit www.SUPERMAXtools.com.

CAUTION: **IMPORTANT SAFETY INFORMATION**

KEEP THIS MANUAL HANDY FOR QUICK REFERENCE

FOR SAFE SANDING OPERATION, FOLLOW THESE GUIDELINES:

- BECOME FAMILIAR WITH THE PROPER OPERATIONAL PROCEDURES FOR USING THIS MACHINE.
- ALWAYS BE SAFETY CONSCIOUS WHEN OPERATING THE MACHINE.
- ALWAYS WEAR EYE PROTECTION WHILE OPERATING THE SANDER.
- ALWAYS FEED STOCK AGAINST THE ROTATION OF THE DRUM
- NEVER PLACE HANDS UNDER THE DRUM OR DUST COVER.
- NEVER OPERATE WITHOUT ITS DUST COVER OR GUARDS IN PLACE.
- KEEP HANDS AND CLOTHING AWAY FROM OPERATING DRUM AND COUPLER.
- ALWAYS MAINTAIN CONTROL OF STOCK TO AVOID KICKBACK; KNOW HOW TO PREVENT IT.
- ALWAYS DISCONNECT ELECTRICAL POWER BEFORE PERFORMING ANY SERVICING OR ADJUSTMENT OF THE MACHINE.
- DO NOT MODIFY THIS MACHINE: MODIFICATIONS ARE DONE AT THE OWNER'S RISK AND ALSO WILL VOID THE MANUFACTURER'S WARRANTY.
- FOR CUSTOMER SERVICE AND QUESTIONS ABOUT THE OPERATION OR MAINTENANCE OF THIS MACHINE, PLEASE CALL YOUR AUTHORIZED SUPERMAX DEALER.
- **IMPORTANT: BEFORE OPERATING YOUR SUPERMAX READ THE INSTRUCTIONS IN THIS MANUAL FOR UNPACKING AND SETTING UP YOUR MACHINE.**