

Operator's Manual

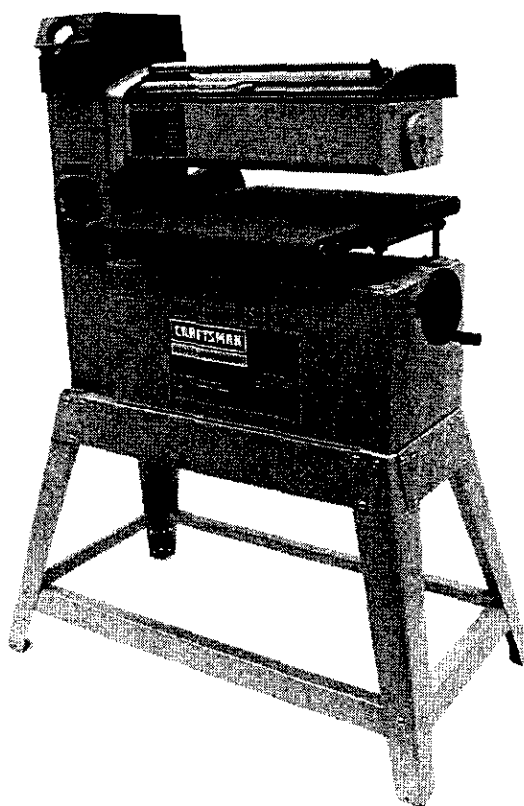


18 x 36"

DRUM SANDER WITH DUST COLLECTION

Model No.

351.215680



CAUTION: Read and follow all Safety Rules and Operating Instructions before First Use of this Product.

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.

www.sears.com/craftsman

22118.02 Draft (05/17/04)

SAFETY

ASSEMBLY

OPERATION

MAINTENANCE

PARTS LIST

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WARRANTY

FULL ONE YEAR WARRANTY ON CRAFTSMAN DRUM SANDER

If this product fails due to a defect in material or workmanship within one year from the date of purchase, Sears will at its option repair or replace it free of charge. Contact your nearest Sears Service Center (1-800-4-MY-HOME) to arrange for product repair, or return this product to place of purchase for replacement.

If this product is used for commercial or rental purposes, this warranty will apply for 90 days from the date of purchase.

This warranty applies only while this product is used in the United States.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Sears, Roebuck and Co., Dept. 817WA, Hoffman Estates, IL 60179

SAFETY RULES

WARNING: For your own safety, read all of the instructions and precautions before operating tool.

CAUTION: Always follow proper operating procedures as defined in this manual even if you are familiar with use of this or similar tools. Remember that being careless for even a fraction of a second can result in severe personal injury.

BE PREPARED FOR JOB

- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.
- Wear protective hair covering to contain long hair.
- Wear safety shoes with non-slip soles.
- Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are **NOT** safety glasses.
- Wear face mask or dust mask if operation is dusty.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

PREPARE WORK AREA FOR JOB

- Keep work area clean. Cluttered work areas invite accidents.
- Do not use power tools in dangerous environments. Do not use power tools in damp or wet locations. Do not expose power tools to rain.
- Work area should be properly lighted.
- Proper electrical receptacle should be available for tool. Three prong plug should be plugged directly into properly grounded, three-prong receptacle.
- Extension cords should have a grounding prong and the three wires of the extension cord should be of the correct gauge.
- Keep visitors at a safe distance from work area.
- Keep children out of workplace. Make workshop childproof. Use padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.

TOOL SHOULD BE MAINTAINED

- Always unplug tool prior to inspection.
- Consult manual for specific maintaining and adjusting procedures.
- Keep tool lubricated and clean for safest operation.
- Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before switching machine on.
- Keep all parts in working order. Check to determine that the guard or other parts will operate properly and perform their intended function.
- Check for damaged parts. Check for alignment of moving parts, binding, breakage, mounting and any other condition that may affect a tool's operation.
- A guard or other part that is damaged should be properly repaired or replaced. Do not perform makeshift repairs. (Use parts list provided to order replacement parts.)

KNOW HOW TO USE TOOL

- Use right tool for job. Do not force tool or attachment to do a job for which it was not designed.
- Disconnect tool when changing belt.
- Avoid accidental start-up. Make sure that the tool is in the "OFF" position before plugging in.
- Do not force tool. It will work most efficiently at the rate for which it was designed.
- Keep hands away from moving parts and sanding surfaces.
- Never leave tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.
- Do not overreach. Keep proper footing and balance.
- Never stand on tool. Serious injury could occur if tool is tipped or if belt is unintentionally contacted.
- Know your tool. Learn the tool's operation, application and specific limitations.
- Use of improper accessories may cause risk of injury to persons.
- Handle the workpiece correctly. Protect hands from possible injury.

CAUTION: Think safety! Safety is a combination of operator common sense and alertness at all times when tool is being used.

WARNING: Do not attempt to operate tool until it is completely assembled according to the instructions.

UNPACKING

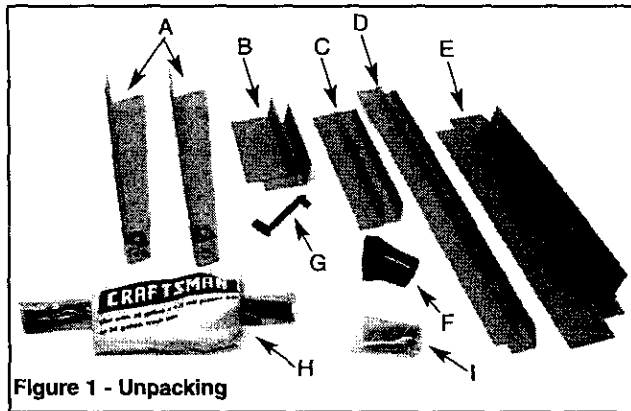
Refer to Figure 1.

CAUTION: Do not attempt assembly if parts are missing. Use this manual to order replacement parts.

Check for shipping damage. If damage has occurred, a claim must be filled with carrier. Check for completeness. Immediately report missing parts to dealer.

The drum sander comes assembled as one unit. Additional parts which need to be fastened to the drum sander, should be located and accounted for before assembling (see Figure 1).

- A Leg (4)
- B Small Support (2)
- C Small Brace (2)
- D Large Brace (2)
- E Large Support (2)
- F Dust Chute
- G Handwheel
- H Half Bag Dust Collection Set
- I Hardware Bag (Part No. 22119.00)



ASSEMBLY

Before drum sander is assembled, a suitable location should be chosen. The drum sander and stand weighs approximately 200 lbs. when completely assembled. They should be assembled on location.

- Sander needs to be set on a flat, level surface.
- Make sure there is ample room for moving the workpiece through the entire cut. There must be enough room that neither the operator nor the bystanders will have to stand in line while using the tool.
- Good lighting and correct power supply are also required for a proper work area.

ASSEMBLE STAND

NOTE: Finger tighten bolts and nuts until assembly of stand is complete. Then tighten all fasteners securely.

- Place the large and small support pieces on the floor. Lay out the pieces in a rectangle with the large and small supports opposite to each other.
- Assemble the legs to the outside of the supports using carriage bolts and nuts.
- Attach the large and small braces to the legs.
- Set stand upright on floor and tighten all bolts and nuts firmly.

MOUNT DRUM SANDER TO STAND

Refer to Figure 2.

CAUTION: The drum sander is heavy. Two people will be required to perform this operation.

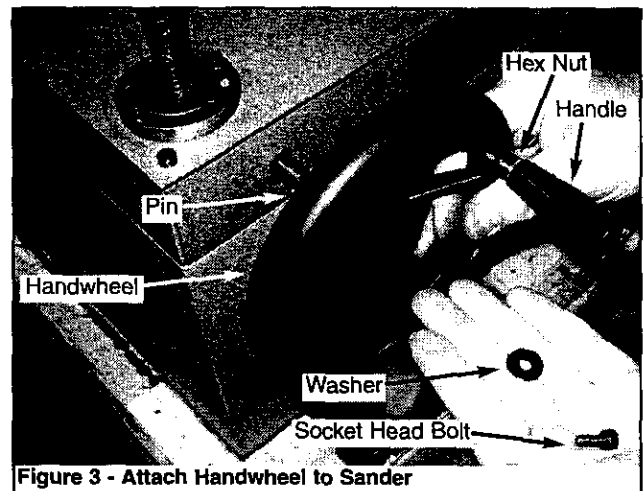
- Place drum sander onto stand. Make sure that holes on top of the stand supports are aligned with holes in bottom of the bed of drum sander. Secure in position using hex head bolts, flat washers and hex nuts.



ATTACH HANDWHEEL TO SANDER

Refer to Figure 3.

- Thread handle into handwheel and secure in position with hex nut. Remove socket head bolt and washer from shaft located on the outboard side of the bed. Place handwheel onto shaft, making sure that the slot in the handwheel engages the pin on the shaft. Secure handwheel in position with bolt and washer.



SAFETY

ASSEMBLY

INSTALL DUST CHUTE

Refer to Figure 4.

- Slide dust chute over fan housing. Secure in position with screw.

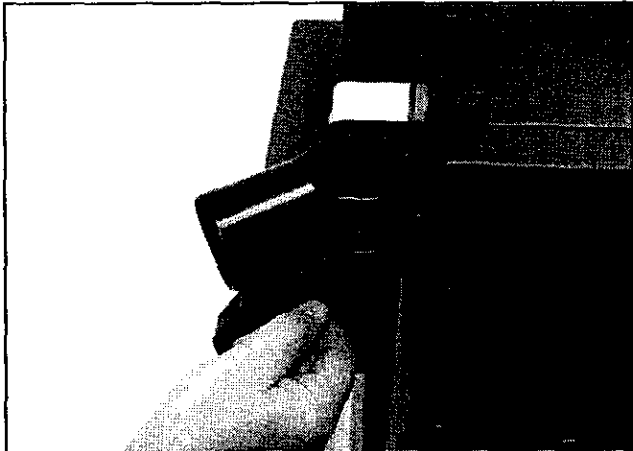


Figure 4 - Installing Dust Chute

INSTALL THE HALF BAG DUST COLLECTION SET

Refer to Figure 5.

The Craftsman Half Bag Dust Collection Set is designed to provide dust collection for woodworking tools with a 2½" diameter dust exhaust port. The filter bag attaches to a 30-gallon trash can or a 30-gallon x 1.3 mil plastic trash bag for easy, convenient sawdust disposal (trash can and plastic trash bag not included).

- Mount sander to stand before installing Dust Collection Set.

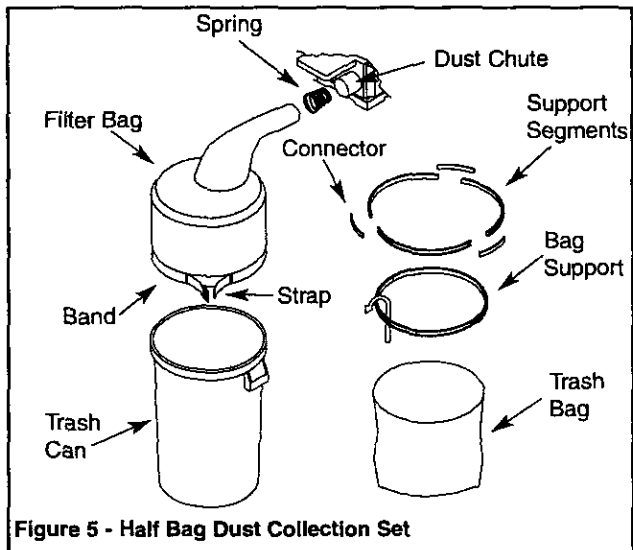


Figure 5 - Half Bag Dust Collection Set

To use dust collection set with a trash can:

- Place spring inside filter bag arm.
- Slide arm with spring over dust chute.
- Place band of the bag over rim of trash can and secure bag by tightening strap.

To use dust collection set with a trash bag:

- Place spring inside filter bag arm.
- Slide arm with spring over dust chute.
- Assemble bag support. Slide connectors into channels of support segments.

- Slide plastic trash bag inside and over bag support. Let bag overlap 3-4".
- Place band of the filter bag over and into the channel of the bag support.
- Secure in position by tightening strap.

INSTALLATION

Refer to Figures 6, 7, and 8, pages 4-5.

Sander comes with the motor and wiring installed. The 120 volt AC induction motor has the following specifications.

Horsepower (Maximum Developed).....	3
Amperes.....	15
Frequency.....	60 HZ
Phase.....	Single
RPM.....	3450
Prewired.....	120V

WARNING: All electrical connections must be performed by a qualified electrician.

WARNING: Do not connect sander to the power source until all assembly steps have been completed.

POWER SOURCE

The motor is designed for operation on the voltage and frequency specified. Normal loads will be handled safely on voltages not more than 10% above or below specified voltage.

Running the unit on voltages which are not within the range may cause overheating and motor burn-out. Heavy loads require that the voltage at motor terminals be no less than the voltage specified on nameplate.

- Power supply to the motor is controlled by a single pole locking rocker switch. Remove the key to prevent unauthorized use.

GROUNDING INSTRUCTIONS

WARNING: Improper connection of equipment grounding conductor can result in the risk of electrical shock. Equipment should be grounded while in use to protect operator from electrical shock.

- Check with a qualified electrician if grounding instructions are not understood or if in doubt as to whether the tool is properly grounded.
- This tool is equipped with an approved 3-conductor cord rated at 150V and a 3-prong grounding type plug rated at 125V (Figure 6) for your protection against shock hazards.
- Grounding plug should be plugged directly into a properly installed and grounded 3-prong grounding-type receptacle, as shown (Figure 6).

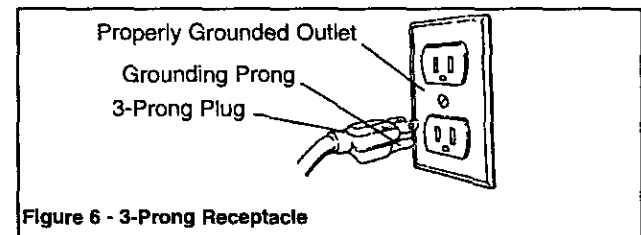


Figure 6 - 3-Prong Receptacle

- Do not remove or alter grounding prong in any manner. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electrical shock.

WARNING: Do not permit fingers to touch the terminals of plug when installing or removing from outlet.

- Plug must be plugged into matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify plug provided. If it will not fit in outlet, have proper outlet installed by a qualified electrician.
- Inspect tool cords periodically, and if damaged, have repaired by an authorized service facility.
- Green (or green and yellow) conductor in cord is the grounding wire. If repair or replacement of the electric cord or plug is necessary, do not connect the green (or green and yellow) wire to a live terminal.
- Where a 2-prong wall receptacle is encountered, it must be replaced with a properly grounded 3-prong receptacle installed in accordance with National Electric Code and local codes and ordinances.

WARNING: This work should be performed by a qualified electrician.

A temporary 3-prong to 2-prong grounding adapter (see Figure 7) is available for connecting plugs to a two pole outlet if it is properly grounded.

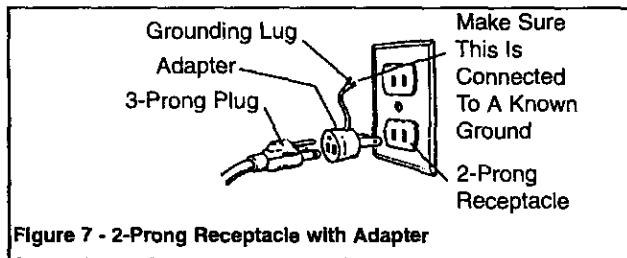


Figure 7 - 2-Prong Receptacle with Adapter

- Do not use a 3-prong to 2-prong grounding adapter unless permitted by local and national codes and ordinances. (A 3-prong to 2-prong grounding adapter is not permitted in Canada.) Where permitted, the rigid green tab or terminal on the side of the adapter must be securely connected to a permanent electrical ground such as a properly grounded water pipe, a properly grounded outlet box or a properly grounded wire system.
- Many cover plate screws, water pipes and outlet boxes are not properly grounded. To ensure proper ground, grounding means must be tested by a qualified electrician.

EXTENSION CORDS

- The use of any extension cord will cause some drop in voltage and loss of power.
- Wires of the extension cord must be of sufficient size to carry the current and maintain adequate voltage.
- Use the table to determine the minimum wire size (A.W.G.) extension cord.
- Use only 3-wire extension cords having 3-prong grounding type plugs and 3-pole receptacles which accept the tool plug.
- If the extension cord is worn, cut, or damaged in any way, replace it immediately.

Extension Cord Length

Wire Size	A.W.G.
Up to 25 ft.	12
25-50 ft.	10

NOTE: Using extension cords over 50 ft. long is not recommended.

ELECTRICAL CONNECTIONS

WARNING: All electrical connections must be performed by a qualified electrician.

WARNING: Make sure tool is off and disconnected from power source while motor is mounted, connected, reconnected or any time wiring is inspected.

Motor and wires are installed as shown in wiring diagram (see Figure 8). Motor is assembled with approved, 3-conductor cord to be used at 115 volts. Motor is prewired at the factory for 115 volts.

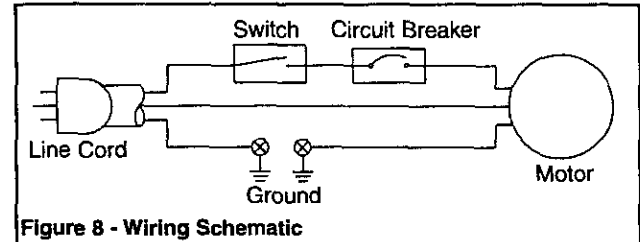


Figure 8 - Wiring Schematic

Drum Sander has a locking rocker switch with removable key for safe and easy operation

- Remove the key from the locking rocker switch to prevent unauthorized use of the tool. To replace the key, press key into the slot on the locking rocker switch.

Drum sander also has a manual reset overload protector to prevent damage to motor and other electrical components. The overload protector will get activated when high current is detected while operating the tool. This will turn the tool off to prevent damage. If that occurs, turn machine "OFF" and depress the reset button once. The tool will be ready to continue operation.

OPERATION

OPERATION

Refer to Figures 9 - 13, pages 6, 7, 10 and 12.

DESCRIPTION

The Craftsman 18 x 36" Drum Sander with leg stand is constructed of rugged cast iron and heavy gauge steel providing stability and vibration-free operation. This sander will accurately sand wood up to 5" thick and up to 18" wide in one pass (36" on two passes).

The drum sander features two pressure plates to help eliminate snipe. Feed rate is infinitely variable from 2 to 12 FPM to accommodate various types of wood. Dust collection system is built-in and includes filter bag.

SPECIFICATIONS

Maximum workpiece height	5"
Minimum workpiece height	1/8"
Maximum workpiece width	18" (36")
Minimum workpiece width	1/8"
Minimum workpiece length	6"
Feed table dimensions	18 x 21"
Feed table height	35-40"
Drum diameter	4"
Dust exhaust port diameter	2 1/2"
Drum speed	4000 SFM
Feed rate	2-12 FPM
Table height adjustment	1/16" per handwheel revolution
Overall dimensions (M x W x D)	50 x 35 x 24"

Switch 120 Volts, SP, Locking rocker
 Motor 3HP (max. developed) 3450 RPM,
 115V, 17 AMPS
 .Weight 198 lbs

WARNING: Operation of any power tool can result in foreign objects being thrown into eyes which can result in severe eye damage. Always wear safety goggles complying with United States ANSI Z87.1 (shown on package) before commencing power tool operation. Safety goggles are available at Sears retail stores or catalog.

CAUTION: Always observe the following safety precautions.

SAFETY PRECAUTIONS

- Whenever adjusting or replacing any parts on the tool, turn switch OFF and remove the plug from power source.
- Make sure all guards are properly attached. All guards should be securely fastened.
- Make sure all moving parts are free and clear of any interference.
- Make sure all fasteners are tight and have not vibrated loose.
- Always use the dust collection system provided with this tool.
- Always wear eye protection or face shield.
- Make sure feed belt tracks properly. Correct tracking gives optimum performance.
- After turning switch on, always allow drum to come up to full speed before sanding.
- Clear the feed table of all objects (tools, scrap, etc.) before starting tool.
- Keep your hands clear of abrasive belt and all moving parts.
- For optimum performance, do not stall motor or reduce speed. Do not force the work into the abrasive.
- Support long or wide workpieces with a roller stand at table height.
- Never push a sharp corner of the workpiece rapidly against belt. Abrasive backing may tear.
- Replace abrasive when they become loaded (glazed) or frayed. Check belts for tightness.
- This tool is designed to sand wood or wood products only. Do not attempt to sand metal on this tool.
- Do not sand pieces of material that are shorter than 6" in length or thinner than 1/8".
- Prevent the workpiece from contacting the sanding belt before starting the tool.
- Sand with the grain of the wood.
- Never perform layout, assembly, or set-up work on the table when the tool is operating.
- Turn the tool "OFF", disconnect the tool from the power source, and clean the table/work area before leaving the tool.
- Never leave the work area when the power is "ON", or before the tool has come to a complete stop.

WARNING: Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm.

Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks and cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures vary, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area and work with approved safety equipment. Always wear **MSHA/NIOSH** approved, properly fitting face mask or respirator when using such tools.

OPERATING CONTROLS AND ADJUSTMENTS

Refer to Figure 9.

ON/OFF Switch

The ON/OFF switch is located at the top of the front panel of the sander. To turn the sander ON, move the switch to the up position. To turn the saw OFF, move the switch to the down position.

Circuit Breaker

The sander is equipped with a motor protection device-circuit breaker. The breaker will automatically shut the sander off when excessive current is consumed.

If the breaker is tripped, turn the sander off and reset the circuit by pressing the button.

CAUTION: Be sure to turn the sander off prior to resetting the circuit breaker to avoid unintentional start-up of the sander.

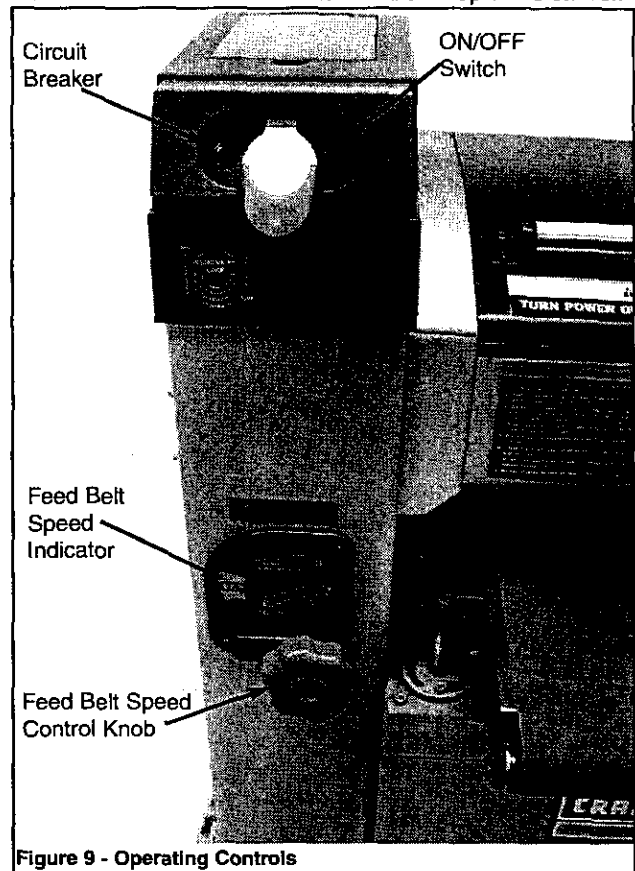


Figure 9 - Operating Controls

Feed Belt Speed Control Knob

CAUTION: Change speeds only while machine is running. The feed belt speed control knob is located in the center of the front panel of the sander. To increase belt speed, rotate the knob counterclockwise. To decrease belt speed, rotate the knob clockwise.

- Stock can be removed more quickly by using a fast speed, but the machine works much harder, and the wood is left with a rougher finish. Slowing the speed will lighten the load of the sander, and make the finish better, but it will increase the sanding time.
- Reduce speed for wider boards and hardwoods.

Feed Belt Speed Indicator

Indicates the belt speed in feet per minute.

Switch Lock

Refer to Figure 10.

The sander can be locked from unauthorized use by locking the switch. To lock the switch:

- Turn the switch to OFF position and disconnect saw from power source.
- Pull the key out. The switch cannot be turned on with the key removed.

NOTE: Should the key be removed from the switch at the ON position, the switch can be turned off but cannot be turned on.

- To replace key, slide key into the slot on switch until it snaps.

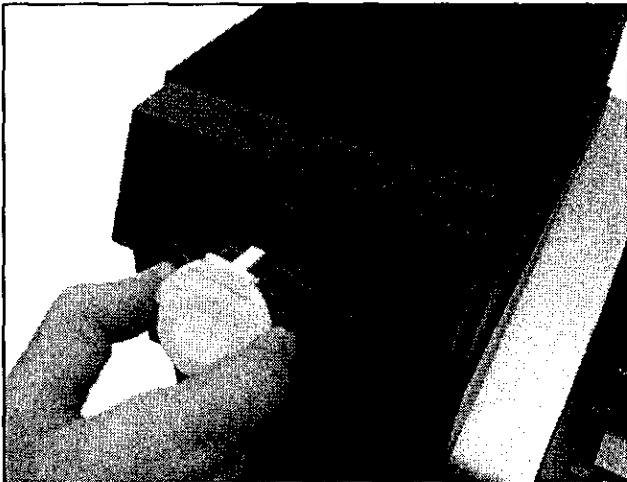


Figure 10 - Removing the Locking Key

RAISING AND LOWERING THE FEED TABLE

Refer to Figure 11.

- To raise the feed table, turn the handwheel clockwise. To lower, turn handwheel counter-clockwise.

NOTE: Each turn of the handwheel will increase or decrease the height of the table by $\frac{1}{16}$ "

- Stock removed settings:
 - $\frac{1}{4}$ turn - For material removal ($\frac{1}{64}$ "
 - $\frac{1}{2}$ turn - For general finishing ($\frac{1}{32}$ "
 - $\frac{1}{16}$ turn - For fine finishing passes

On the last finishing passes, pass the board through two or three times to level hard spots or knots.

- Reduce depth of stock removal for wider boards and hardwoods to prevent tripping overload protection.

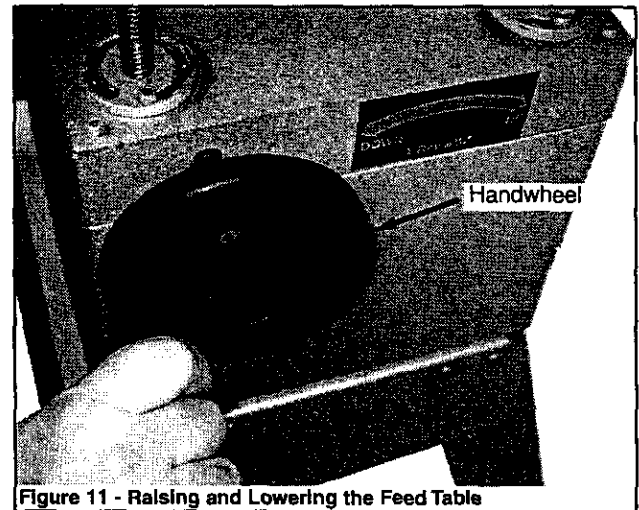


Figure 11 - Raising and Lowering the Feed Table

ADJUSTING TRACKING AND TENSION ON THE FEED BELT

Refer to Figure 12.

NOTE: With a new belt, it is not unusual for one side of the belt to be tighter than the other to make the belt track. Frequent adjustments are normal for the first few hours use to allow for belt stretch. Adjustments to belt tracking can also affect belt tension.

Belt should ride centered on the drive and idler rollers. The drum sander is shipped with the tracking and tension properly adjusted. However, if adjustment is necessary:

Tensioning

NOTE: When adjusting belt tension, tighten or loosen both bolts the same amount to avoid affecting belt tracking. **DO NOT** over tension the belt. Excessive tension will cause premature wear of belt, bearings and overload the motor. Listen for motor load speed changes when adjusting belt tension.

NOTE: Adjustments to belt tension can affect belt tracking. Frequent adjustments are normal for the first few hours use to allow for belt stretch.

- The belt needs adjustment if it slips on the rollers during sanding operations.
- Loosen all four socket head bolts (A).
- Loosen hex nut. Turn both hex head bolts (B) clockwise $\frac{1}{4}$ turn and check tension. Repeat until the feed belt is tensioned properly. Tighten hex nuts to secure bolts in position.
- Tighten all socket head bolts.

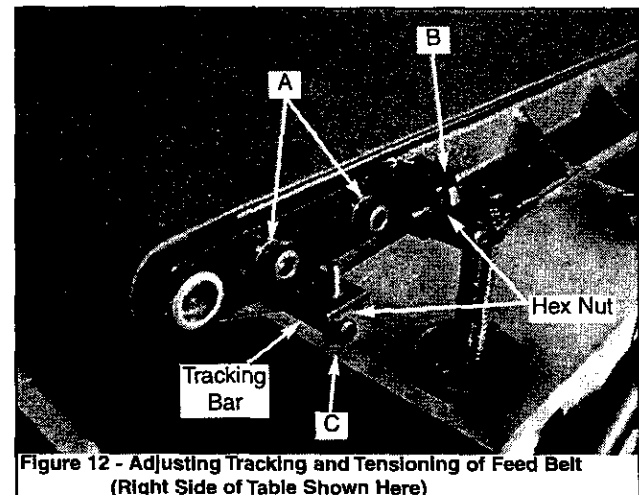


Figure 12 - Adjusting Tracking and Tensioning of Feed Belt (Right Side of Table Shown Here)

Tracking

- Connect tool to power source.
- Turn belt feed speed control knob to the maximum speed, and run the feed table several minutes to check for proper tracking of the feed belt.
- Let the belt run and observe tracking direction. If belt does not move to either side within five minutes of running, no adjustment is needed.
- To correct improper tracking of the feed belt to the **left**, loosen the hex nut of the tracking bar assembly and turn the socket head bolt (on the left side of the table) counterclockwise $\frac{1}{4}$ turn. (Counterclockwise direction as viewed from the head of the bolt.) Continue this adjustment until the feed belt is tracking properly on the feed rollers. Let the feed belt run several minutes before adjusting again. Tighten the hex nut to secure tracking bar in position.
- To correct improper tracking of the feed belt to the **right**, loosen the hex head nut of the tracking bar assembly and turn the socket head bolt (on the right side of the table) counterclockwise $\frac{1}{4}$ turn. (Counterclockwise direction as viewed from the head of the bolt.) Continue this adjustment until the feed belt is tracking properly on the feed rollers. Let the feed belt run several minutes before adjusting again. Tighten the hex nut to secure tracking bar position.

ADJUSTING FEED TABLE PARALLEL TO DRUM

Refer to Figure 13.

The drum sander is shipped from the factory with the drum carriage set parallel to the feed table. However, if adjustment is necessary:

- To check if the feed table is parallel with the drum cylinder, sand a wide board (preferably 12" or more in width x 2' long) until it is flat across the total surface area on both sides.
- To do a quick check, draw pencil lines extending across the width of the board at several places along the length of the board.
- Reverse the board (end for end) and run the board through the sander. If the sanding table is set properly, the drawn lines will disappear. If the lines still appear on the left or right side of the board, the table height must be adjusted.
- Disconnect tool from power source.
- Loosen the four socket head bolts.
- Turn both screw guides equally to raise (counterclockwise) or lower (clockwise) the table (one revolution of screw guide will move the table 0.125").

NOTE: When sanding pieces wider than 18" and the drum is not parallel to the table, a step or line will result. It is best to set the outboard side a few thousandths of an inch higher to allow sanding a crown rather than a groove.

- Sand the board again to check adjustment; readjust if necessary.
- Tighten socket head bolts

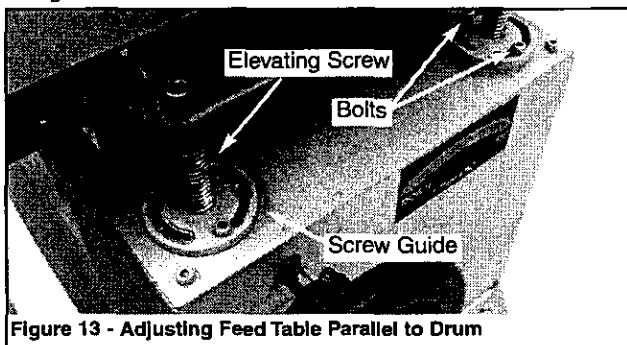


Figure 13 - Adjusting Feed Table Parallel to Drum

DRUM SANDING BELT REPLACEMENT

WARNING: Disconnect tool from power source.

The drum sanding belt is held on the drum with a spring loaded clamp located on each side of the drum.

- To remove the sanding belt, loosen the socket head bolt and raise the drum cover (See Figure 14).



Figure 14 - Opening the Drum Cover

- Loosen socket head bolt in the clamp and remove one end of sanding belt.
- Rotate the drum by hand to remove the belt. Release belt from clamp at other end of drum (See Figure 15).

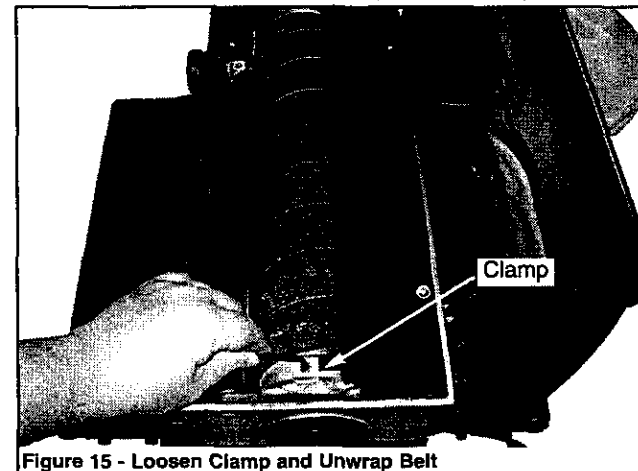


Figure 15 - Loosen Clamp and Unwrap Belt

- To replace the sanding belt, place end of belt (tapered edge on outside of drum) between clamp and drum, secure in position by tightening socket head bolt, and wrap belt by rotating drum by hand (See Figure 16).

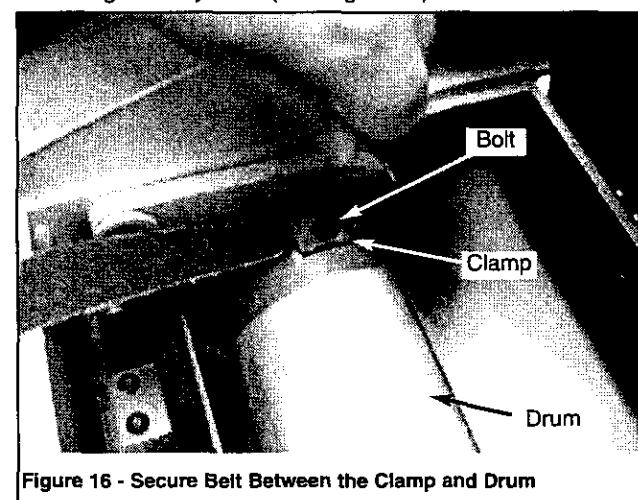


Figure 16 - Secure Belt Between the Clamp and Drum

- Tightly wrap sanding belt around the drum keeping each wrap close to the previous edge (See Figure 17).

IMPORTANT: Do not overlap the edges of the sanding belt.



Figure 17 - Wrap Belt Tightly

- Place the end of the belt between the clamp and drum and tighten the socket head bolt in the clamp.
- Close drum cover and secure by tightening socket head bolt.

FEED BELT REPLACEMENT

Refer to Figure 18.

- Disconnect tool from power source.
- Position table approximately halfway between drum and base.
- Loosen and remove the socket head bolts from the two out-board elevating screws.
- Relieve the tension on the belt; refer to "Adjusting Tracking and Tension of Feed Belt" in the manual.
- Lift table and slide feed belt off table. Place new feed belt on table. Apply tension to belt.
- Secure table by tightening the socket head bolts on the elevating screws.
- Adjust tension and tracking; refer to "Adjusting Tracking and Tension of Feed Belt" in the manual.

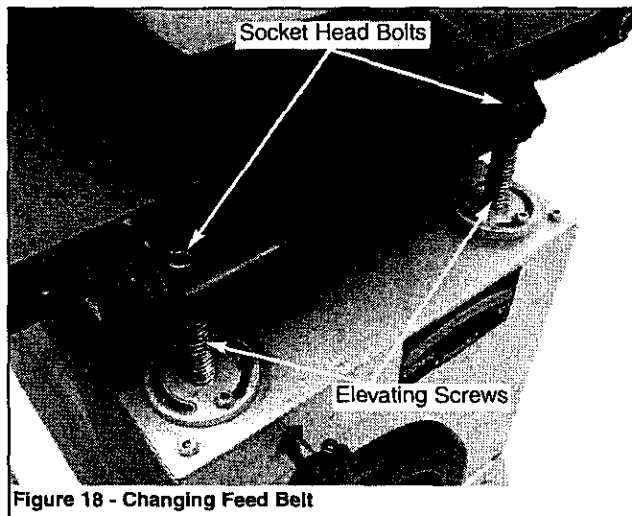


Figure 18 - Changing Feed Belt

RETURN ROLLER

Refer to Figure 19.

The drum sander has a return roller on the drum cover so that the workpiece can be easily moved to the front of the sander for another pass.

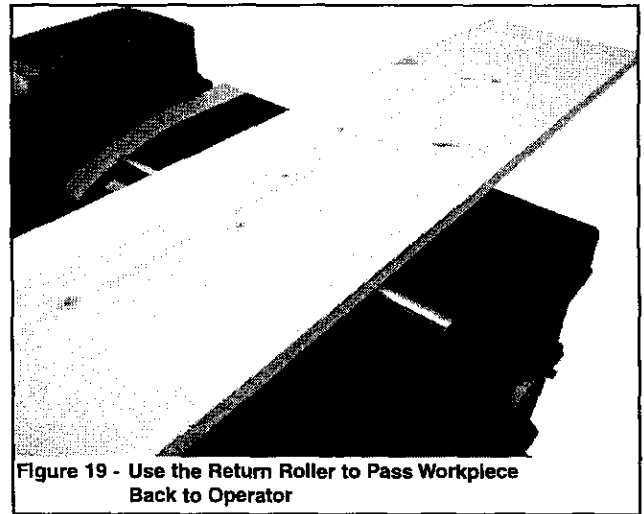


Figure 19 - Use the Return Roller to Pass Workpiece Back to Operator

TOOLBOX

Refer to Figure 20.

- Tool storage is located at the top of the column.

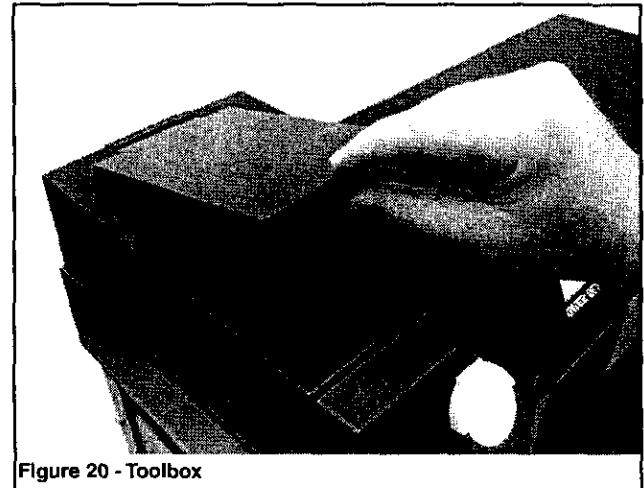


Figure 20 - Toolbox

SANDING BELT GRIT APPLICATIONS

- 60 grit -Used for heavy stock removal and rough surfaces, and truing warped material.
- 80 grit - Used for general purpose sanding, stock removal, surfacing, and rough finishing.
- 150 grit - Used for fine finishing.
- 220 grit - For very fine finishing.

For best results, sand first with a coarse grit belt, and work toward a finer grit belt.

IMPORTANT: Sanding progression should not exceed more than two belt grits at one time. Watch the for sawdust loading and dulling of the grit. The extra load will cause the sander to work inefficiently.

MAINTENANCE

WARNING: Make certain that the unit is disconnected from power source before attempting to service or remove any component.

CLEANING

Keep machine and workshop clean. Do not allow sawdust to accumulate on the tool. Vacuum sawdust from drum feed belt, roller bushings and cavities inside drum carriage.

LUBRICATION

- The shielded ball bearings in this tool are permanently lubricated at the factory. They require no further lubrication.
- Periodically oil bushings on the pressure rollers and feed table rollers.

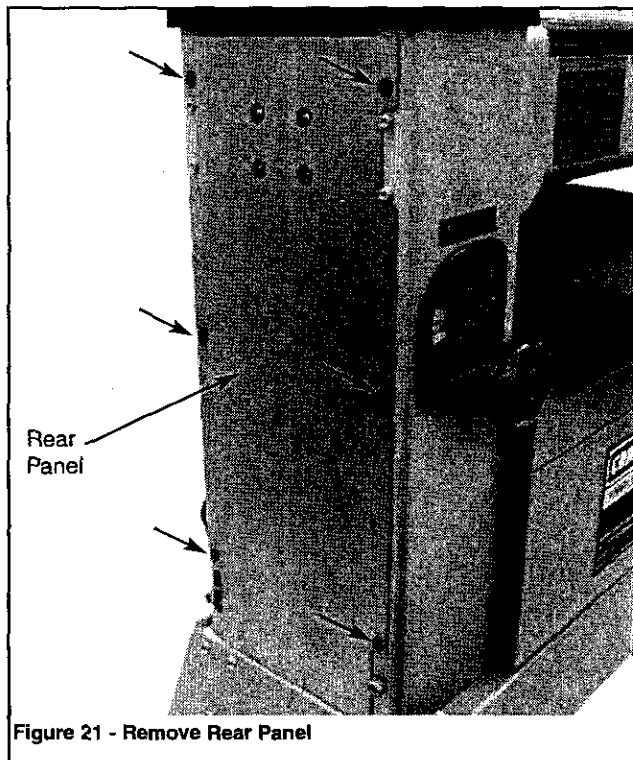
KEEP TOOL IN REPAIR

- If power cord is worn, cut, or damaged in any way, have it replaced immediately.
- Replace worn abrasive when needed.
- Replace any damaged or missing parts. Use parts list to order parts.

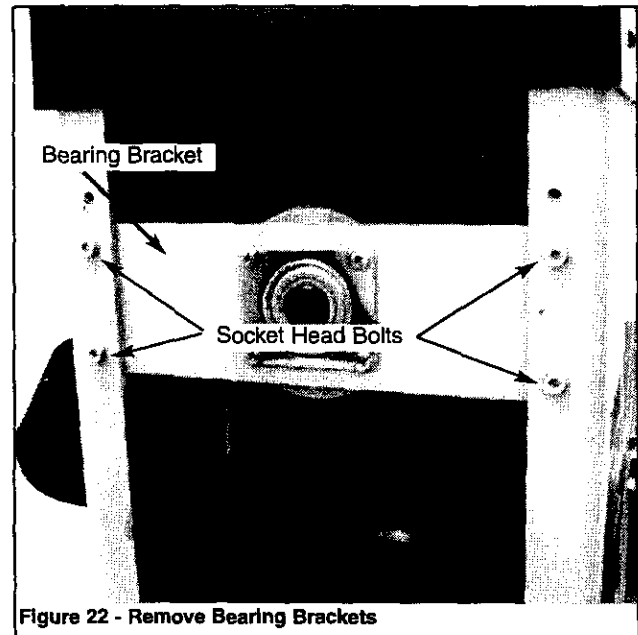
Any attempt to repair motor may create a hazard unless repair is done by a qualified service technician. Repair service is available at your nearest Sears store.

REMOVING AND REPLACING DRIVE BELTS

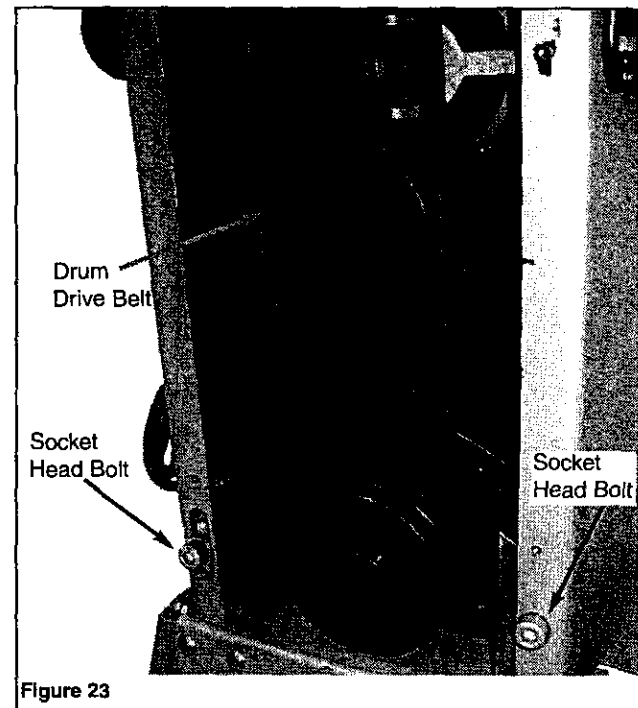
- Loosen and remove the six socket head bolts shown and rear panel from column (See Figure 21).



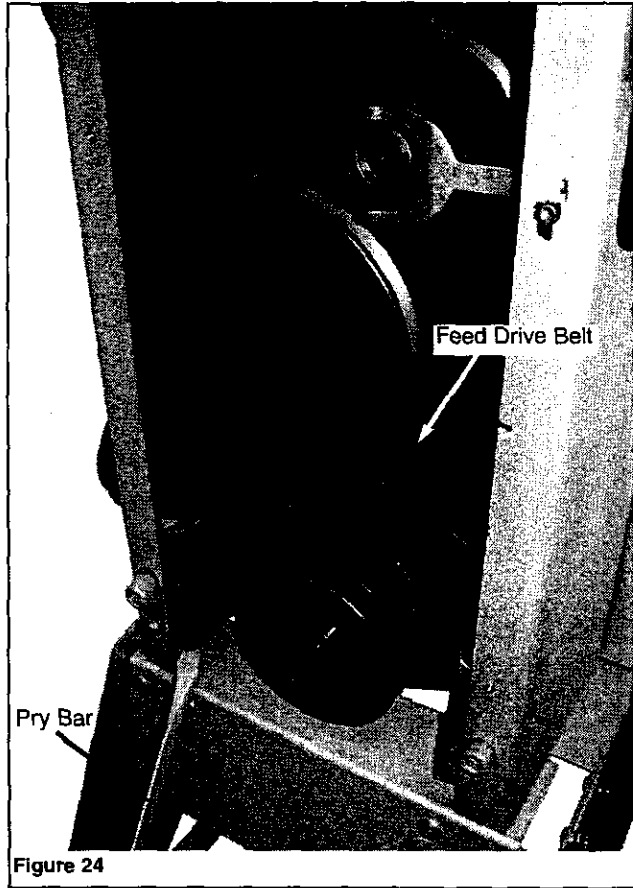
- Loosen and remove four socket head bolts and the bearing bracket (See Figure 22).



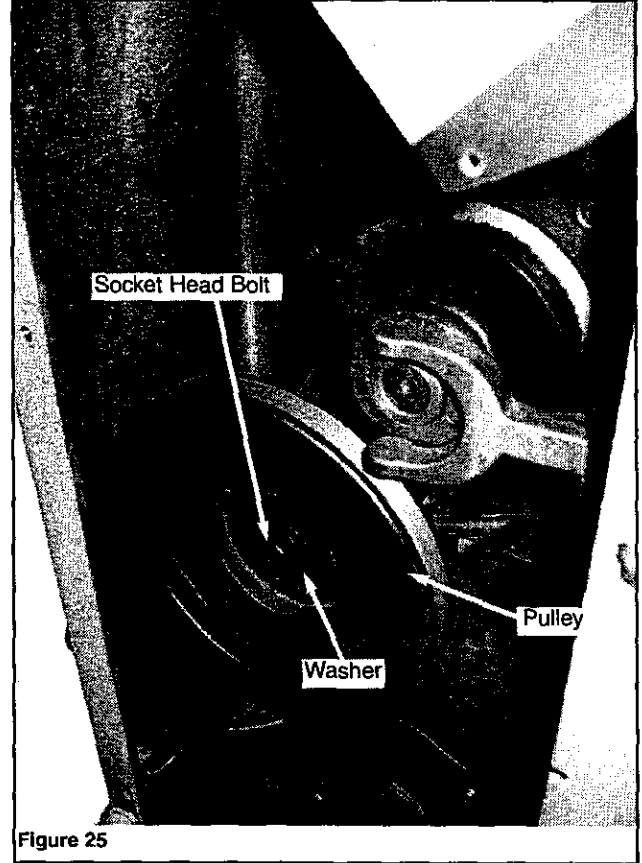
- Loosen the two socket head bolts shown to release tension from belts. The drum drive belt can be removed and replaced at this time (See Figure 23).



- Use a pry bar to lift motor bracket to remove and replace the feed drive belt (See Figure 24).



- To remove and replace the variable speed belt, the outer variable speed drive pulley must be removed. Loosen and remove the socket head bolt washer and pulley (See Figure 25).



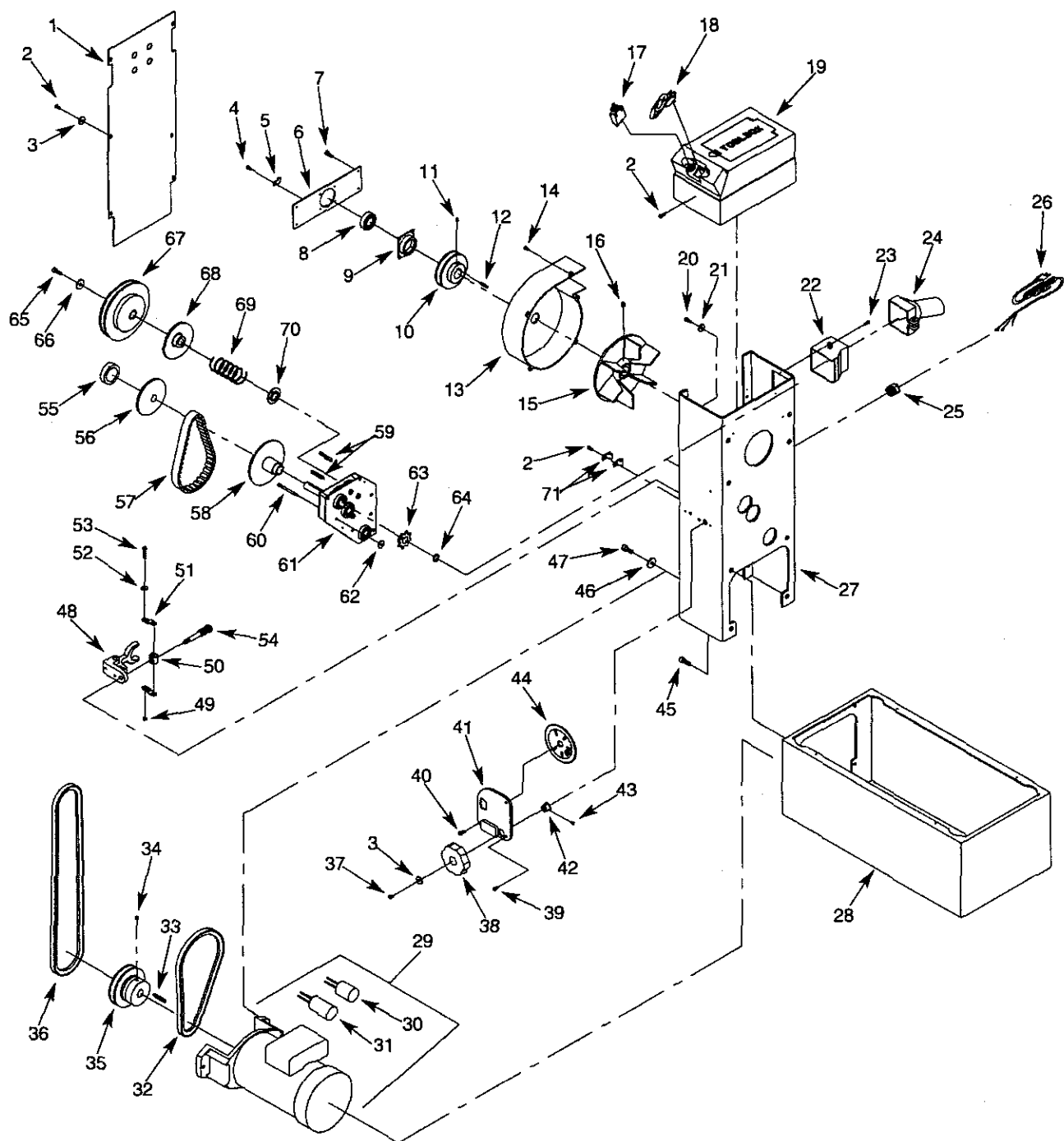
- Reassemble in reverse order.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Motor will not start	<ol style="list-style-type: none"> 1. Low voltage 2. Open circuit in motor or loose connections 3. Thermal overload protector activated 	<ol style="list-style-type: none"> 1. Check power line for proper voltage 2. Inspect all lead connections on motor for loose or open connection 3. Push thermal overload button to reset
Motor will not start; fuses blown or circuit breakers are tripped	<ol style="list-style-type: none"> 1. Short circuit in line cord or plug 2. Short circuit in motor or loose connections 3. Incorrect fuses or circuit breakers in power line 4. Thermal overload protector activated 	<ol style="list-style-type: none"> 1. Inspect line cord or plug for damaged insulation and shorted wires 2. Inspect all lead connections on motor for loose or shorted terminals or worn insulation on wires 3. Install correct fuses or circuit breakers 4. Push thermal overload button to reset
Motor fails to develop full power (power output of motor decreases rapidly with decrease in voltage at motor terminals)	<ol style="list-style-type: none"> 1. Power line overloaded with lights, appliances and other motors 2. Undersize wires or circuits too long 3. General overloading of power company's facilities 	<ol style="list-style-type: none"> 1. Reduce the load on the power line 2. Increase wire sizes, or reduce length of wiring 3. Request a voltage check from the power company
Motor stalls (resulting in blown fuses or tripped circuit breakers)	<ol style="list-style-type: none"> 1. Motor overload; too much stock removed per pass 2. Short circuit in motor or loose connections 3. Low voltage 4. Incorrect fuses or circuit breakers in power line 	<ol style="list-style-type: none"> 1. Set drum height to remove less material per pass 2. Inspect connections in motor for loose or shorted terminals or worn insulation on lead wires. 3. Correct the low line voltage conditions 4. Install correct fuses or circuit breakers
Feed belt runs off rollers	Not tracking properly	See operation, "Adjusting Tracking and Tension of the Feed Belt"
Workpieces stalls while feeding	<ol style="list-style-type: none"> 1. Too much stock removal per pass 2. Not enough tension on feed belt 	<ol style="list-style-type: none"> 1. Reduce depth of stock removal per pass 2. See operation, "Adjusting Tracking and Tension of the Feed Belt"
Workpiece thickness is not uniform	Drum carriage is not parallel to the feed table	See operation, "Adjusting Feed Table Parallel to Drum"

Model 351.215680

Figure 26 - Replacement Parts Illustration for Drive



REPLACEMENT PARTS LIST FOR DRIVE

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	22123.00	Side Cover	1
2	STD863508	5-0.8 x 8mm Pan Head Screw*	8
3	STD851005	5mm Flat Washer*	7
4	STD870506	5-0.8 x 6mm Socket Head Bolt*	4
5	22124.00	Bearing Retainer	1
6	22125.00	Bracket	1
7	STD870510	5-0.8 x 10mm Socket Head Bolt*	4
8	STD315545	6004zz Ball Bearing*	1
9	22126.00	Bearing Mount	1
10	22127.00	Drum Pulley	1
11	00351.00	6-1.0 x10mm Set Screw	1
12	04293.00	6 x 6 x 20mm Key	1
13	22128.00	Fan Housing	1
14	STD870408	4-0.7 x 8mm Socket Head Bolt*	5
15	22129.00	Fan	1
16	00958.00	8-1.25 x 8mm Set Screw	1
17	04287.00	Circuit Breaker	1
18	16080.00	Switch	1
19	22131.00	Toolbox Assembly	1
20	STD863506	5-0.8 x 6mm Pan Head Screw*	1
21	01474.00	5mm Serrated Washer	1
22	22132.00	Exhaust Port	1
23	06701.00	5-0.8 x 8mm Socket Pan Head Screw	2
24	18288.00	Dust Chute with Screw	1
25	07256.00	Strain Relief	1
26	22133.00	Line Cord	1
27	N/A	Frame	1
28	N/A	Base	1
29	22136.00	Motor	1
30	22137.00	Capacitor, 25MFD, 250VAC	1
31	22138.00	Capacitor, 300MFD, 125VAC	1
32	STD303280	V-Belt*	1
33	07338.00	6 x 6 x 40mm Key	1
34	00394.00	10-1.5 x 12mm Set Screw	1
35	22139.00	Motor Pulley	1
36	STD304460	V-Belt*	1
37	STD863510	5-0.8 x 10mm Pan Head Screw*	1

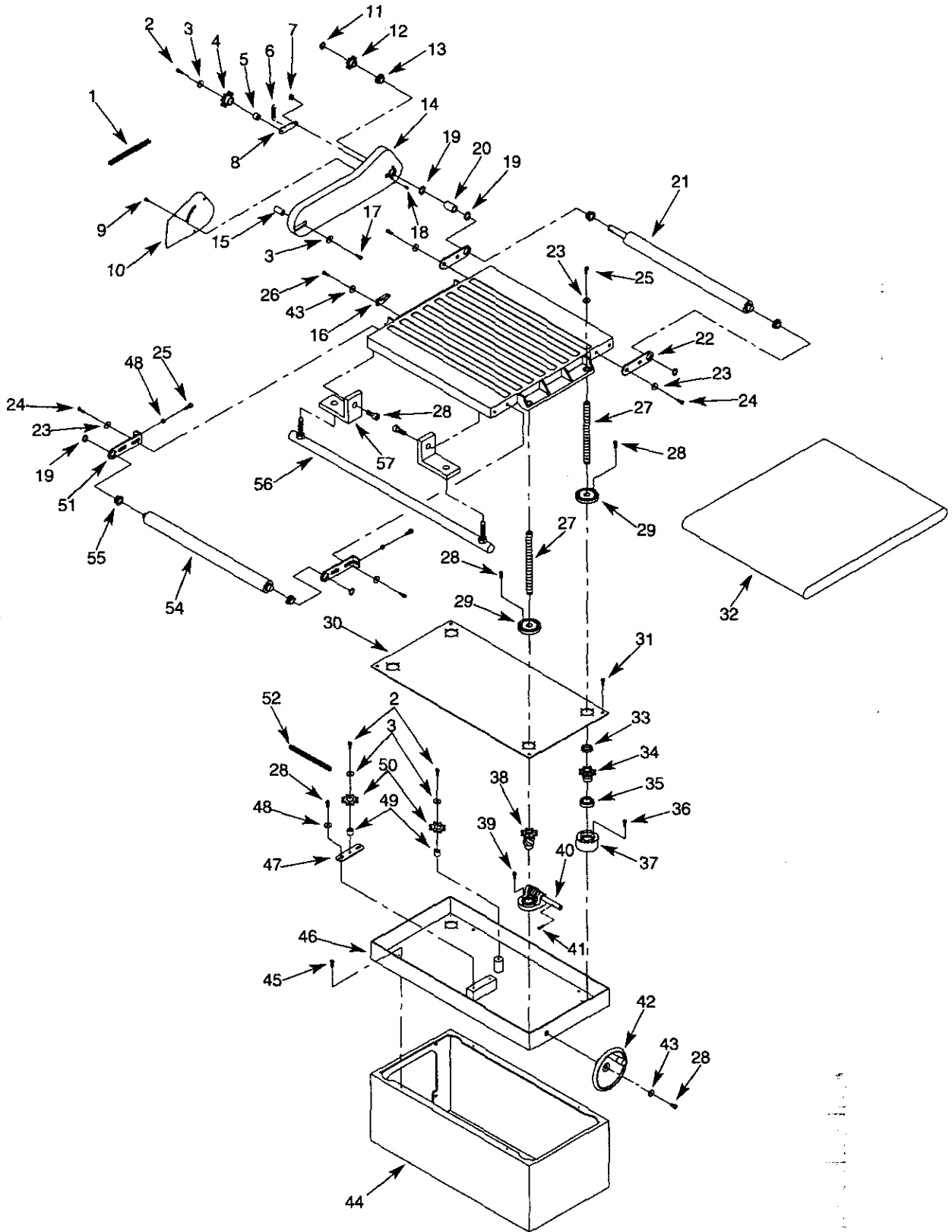
KEY NO.	PART NO.	DESCRIPTION	QTY.
38	18151.00	Knob	1
39	STD863512	5-0.8 x 12mm Pan Head Screw*	3
40	STD870620	6-1.0 x 20mm Socket Head Bolt*	2
41	22142.00	Cover	1
42	22143.00	Gear	1
43	04869.00	5-0.8 x 6mm Set Screw	1
44	22144.00	Gear with Scale	1
45	22145.00	10-1.5 x 12mm Socket Head Bolt	4
46	STD851010	10mm Flat Washer*	2
47	01002.00	10-1.5 x 25mm Socket Head Bolt	2
48	22146.00	Fork Assembly	1
49	STD840508	5-0.8mm Hex Nut*	2
50	22147.00	Nut	1
51	22148.00	Plate	2
52	STD852005	5mm Lock Washer*	2
53	STD870525	5-0.8 x 25mm Socket Head Bolt*	2
54	22149.00	Adjustment Rod with Screw and Washer	1
55	01908.00	51105 Thrust Bearing	1
56	22150.00	Moveable Pulley	1
57	20565.00	Variable Speed Belt	1
58	22151.00	Stationary Pulley	1
59	07885.00	5 x 5 x 40mm Key	2
60	04434.00	5-0.8 x 32mm Socket Head Bolt	7
61	22152.00	Gearbox Assembly	1
62	22153.00	Spacer	7
63	22154.00	Table Drive Sprocket	1
64	00533.00	3AMI-15 Retaining Ring	1
65	02661.00	8-1.25 x 14mm Socket Head Bolt	1
66	STD851008	8mm Flat Washer*	1
67	22155.00	Pulley	1
68	22156.00	Moveable Pulley	1
69	22157.00	Spring	1
70	22158.00	Spacer	1
71	00620.00	Cord Clamp	2
Δ	18625.00	Half Bag Dust Collection Set	1
Δ	22118.02	Operator's Manual	1

* Standard hardware item available locally

Δ Not shown

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Figure 27 - Replacement Parts Illustration for Table



© 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024

REPLACEMENT PARTS LIST FOR TABLE

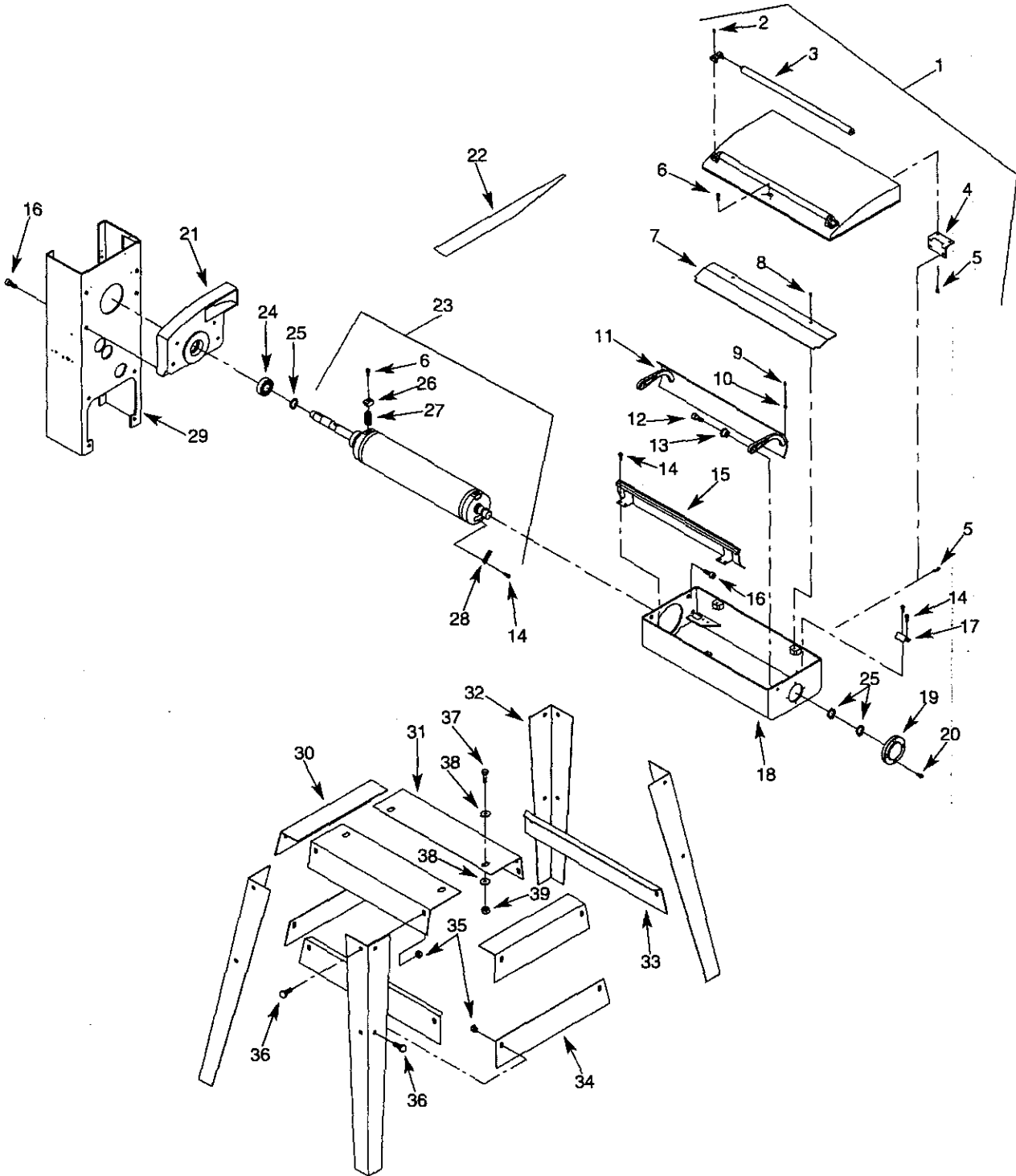
KEY NO.	PART NO.	DESCRIPTION	QTY.
1	22178.00	Chain	1
2	STD870620	6-1.0 x 20mm Socket Head Bolt*	3
3	STD851006	6mm Flat Washer*	4
4	22180.00	Idler Sprocket	1
5	22181.00	Bushing	1
6	22182.00	Spring	1
7	22183.00	Nut	1
8	22184.00	Idler Bracket	1
9	01388.00	4-1.4 x 10mm Threadforming Screw	3
10	22185.00	Chain Guard	1
11	00533.00	3AMI-15 Retaining Ring	1
12	22186.00	Driven Sprocket	1
13	22187.00	Bushing	1
14	22188.00	Chain Guide Assembly	1
15	22189.00	Spacer	1
16	22210.00	Belt Guide	1
17	STD870635	6-1.0 x 35mm Socket Head Bolt*	1
18	STD863508	5-0.8 x 8mm Pan Head Screw*	1
19	00256.00	3AMI-20 Retaining Ring	5
20	22190.00	Spacer	1
21	22191.00	Drive Roller	1
22	22192.00	Roller Bracket	2
23	STD851008	8mm Flat Washer*	12
24	STD870816	8-1.25 x 16mm Socket Head Bolt*	8
25	STD835025	8-1.25 x 25mm Hex Head Bolt*	6
26	STD870508	5-0.8 x 8mm Socket Head Bolt*	2
27	22194.00	Elevating Screw	4
28	STD870512	5-0.8 x12 mm Socket Head Bolt*	21

KEY NO.	PART NO.	DESCRIPTION	QTY.
29	22195.00	Screw Guide	4
30	N/A	Dust Cover	1
31	08541.00	5-0.8 x 60mm Socket Head Bolt	4
32	22306.00	Feed Belt	1
33	22198.00	Spacer	4
34	22199.00	Elevation Sprocket	3
35	22200.00	6904zz Ball Bearing	3
36	STD870535	5-0.8 x 35mm Socket Head Bolt*	12
37	22201.00	Bearing Mount	3
38	22202.00	Elevating Gear	1
39	STD870516	5-0.8 x 16mm Socket Head Bolt*	3
40	22203.00	Worm Gear Assembly	1
41	02817.00	4 x 20mm Spring Pin	1
42	22204.00	Handwheel	1
43	STD851005	5mm Flat Washer*	5
44	N/A	Base	1
45	STD870610	6-1.0 x 10mm Socket Head Bolt*	4
46	N/A	Table Tray	1
47	22207.00	Idler Bracket	1
48	STD840812	8-1.25mm Hex Nut*	2
49	22181.00	Bushing	2
50	22209.00	Idler Sprocket	2
51	22215.00	Belt Tension Bracket	2
52	22211.00	Chain	1
53	22212.00	Table	1
54	22213.00	Idler Roller	1
55	22214.00	Bushing	4
56	22303.00	Tracking Bar Assembly	1
57	22304.00	Bracket	2

* Standard hardware item available locally

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Figure 28 - Replacement Parts Illustration for Drum Assembly and Stand



REPLACEMENT PARTS LIST FOR DRUM ASSEMBLY AND STAND

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	22159.00	Hood (incl Key Nos. 2-5)	1
2	STD863516	5-0.8 x 16mm Pan Head Screw*	4
3	22160.00	Roller	1
4	22161.00	Hinge	2
5	STD870508	5-0.8 x 8mm Socket Head Bolt*	4
6	STD870616	6-1.0 x 16mm Socket Head Bolt*	3
7	22162.00	Chip Deflector	1
8	22163.00	6-1.0 x 10mm Socket Pan Head Screw	2
9	22164.00	5-0.8 x 18mm Set Screw	2
10	STD840508	5-0.8mm Hex Nut*	2
11	22165.00	Rear Pressure Plate	1
12	22166.00	10-1.5 x 10mm Socket Head Bolt	1
13	22167.00	Bushing	2
14	STD870610	6-1.0 x 10mm Socket Head Bolt*	9
15	22168.00	Front Pressure Plate	1
16	01002.00	10-1.5 x 25mm Socket Head Bolt	8
17	22169.00	Clip	2
18	N/A	Drum Housing	1
19	22171.00	Bearing Mount with Bearing	1
20	STD870612	6-1.0 x 12mm Socket Head Bolt*	4
21	22172.00	Bearing Housing	1
22	22173.00	Abrasive Belt, 80 Grit	1
23	22174.00	Drum Assembly (Incl. Key Nos. 6, 14, 26, 27 & 28)	1
24	STD315251	6205zz Ball Bearing*	1
25	01900.00	3AM1-25 Retaining Ring	3
26	22175.00	Belt Clamp	2
27	22176.00	Spring	2
28	22177.00	Spring	1
29	N/A	Frame	1
30	22216.00	Support, Small	2
31	22219.00	Support, Large	2
32	22220.00	Leg	4
33	22221.00	Brace, Large	2
34	22222.00	Brace, Small	2
35	STD840610	6-1.0mm Hex Nut	16
36	22223.00	6-1.0 x 10mm Truss Head Screw	16
37	STD835030	8-1.25 x 30mm Hex Head Bolt*	4
38	STD851008	8mm Flat Washer*	8
39	STD840812	8-1.25mm Hex Nut*	4
Δ	22119.00	Hardware Bag	1
Δ	22231.00	Abrasive Belt - 60 Grit	-
Δ	22232.00	Abrasive Belt - 150 Grit	-
Δ	22233.00	Abrasive Belt - 220 Grit	-

* Standard hardware item available locally

Δ Not shown

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