



Operating Instructions and Parts Manual Wide Belt Sander

Model J-948WBSV



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1.0 IMPORTANT SAFETY INSTRUCTIONS

You — the stationary power tool user — hold the key to safety.

Read and follow these simple rules for best results and full benefits from your machine. Used properly, JET machinery is among the best in design and safety. However, any machine used improperly can be rendered inefficient and unsafe. It is mandatory that those who use our products be properly trained in how to use them correctly. They should read and understand the Operating Instructions and Parts Manual as well as all labels affixed to the machine. Failure in following all of these warnings can cause serious injuries.

General Operational Safety

1. Before installing and using this machine, read, understand, and follow the instructions in this Operating Instructions and Parts Manual.
2. For safe operation, this machine must be set up, used, and serviced properly. Misuse of this machine can cause serious injury or death.
3. Know the tool you are using, its application, limitations, and potential hazards.
4. When mounting on or over a combustible surface, a floor plate of at least 1.43 mm galvanized or 1.6 mm uncoated steel must be installed and extended at least 150 mm beyond the equipment on all sides.
5. Wear proper apparel. Never wear loose clothing, gloves, jewelry, or unrestrained hair which can get caught in moving parts. Rubber soled, nonslip, footwear is recommended for best footing.
6. Keep children away. All visitors should be kept at a safe distance from the work area. Make your workshop completely safe by using padlocks, master switches, and by locking out the Main Power Switch.
7. Avoid dangerous working environments. Do not use stationary machine tools in wet or damp locations. Keep work areas clean and well lit.
8. Avoid accidental starts by being sure that the Main Power Switch is in the "OFF" position and locked using a small pad lock (not supplied) before plugging in the machine.
9. Never leave this machine running while unattended. Pad lock the Main Power Switch in the "OFF" position whenever this machine is not being used.
10. Keep work area clean. Cluttered areas invite accidents.
11. Remove adjusting keys and wrenches (if used) before turning the machine on.
12. Use the right tool. Don't force a tool or attachment to do a job it was not designed for.
13. Use only recommended accessories and follow manufacturer's instructions pertaining to them.
14. Do not operate this machine while tired or under the influence of drugs, alcohol, or medication.
15. Disconnect machine from electrical power source before adjusting, cleaning, repairing, changing accessories, or when general servicing and maintenance is done.
16. Never stand on this machine. Serious injury could occur if the tool is tipped or if the abrasive belt is accidentally contacted.

Abrasive Sanding Machine Safety

Abrasive sanding can be hazardous to operators and bystanders. Sanding sparks, chips and dust particles thrown off by the abrasive belt can cause serious injury if contacted or inhaled. To avoid such injuries, you must comply with the following safety requirements:

1. Always wear approved protective eye wear and/or face shield when operating machinery which comply with ANSI Z87.1 specifications. Eye wear and face shield shall be impact resistant. Make sure protective safety glasses have side shields. Use of eye wear or face shield that do not comply with ANSI Z87.1 specifications could result in severe injury from the breakage of the eye protection.
2. Wear an approved dust mask when operating this machine.
3. All dusts are potentially explosive. Read and understand the safety information below under *Fire and Explosion Safety*.
4. Keep hands away from all moving parts including abrasive belt, revolving rolls, chains, and conveyor belt.
5. Never place hands or fingers between work pieces and the conveyor belt. Your hand may become pinched and pulled into the sander.
6. Do not create a pinch point when adding, feeding, and/or unloading material.
7. Kickback and kickout are conditions when the work piece is ejected at high speed toward the infeed or outfeed of the machine. Avoid Kickback or kickout by never allowing work pieces to overlap, double feed, or ride on top of each other. Also make sure the sander opening is not too small for the work piece. Work piece must be firmly held to the feed conveyor belt to control part. Do not stand directly in front or behind the conveyor. Stand to the side to stay out of the work piece path.
8. Do not force or jam the workpiece into the abrasive belt. It will do the job better and safer at the rate for which it was designed.

9. Do not overreach. Failure to maintain a proper working position can cause you to fall into the machine or cause your clothing to get caught — pulling you into the machine.
10. Keep all doors, covers, and guards in place and in proper working order. Do not operate the machine with the doors, covers, or guards damaged or removed.
11. Check damaged parts. A guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment or moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. Properly repair or replace any guard or other part that is damaged.
12. Before sanding, always allow the motor to come up to operating speed, then check the abrasive belt for tracking, alignment, or any unbalanced condition. If the belt is not operating accurately and smoothly, immediately stop the motor and make adjustments before attempting any sanding operations.
13. Rotating abrasive belt will cause severe injury if touched by any part of your body. Keep your body, especially your hands and fingers, and clothing away from moving parts.
14. Abrasive belts must be stored in a controlled environment. Failure to do so could cause premature belt failure. Follow all manufacturers requirements and specifications for storing belts.
15. Examine the face of the abrasive belt carefully. Excessive sanding that wears down to the backing material can tear the belt. Never use a belt which shows backing, nicks or cuts on the surface or edge, or damage due to creasing or poor handling.
16. Never clean the abrasive belt while it is on the sander. Turn the Main Power Switch “OFF”, remove the abrasive belt and clean separately.
17. When installing a new belt, be certain the belt is properly installed, aligned, and adjusted. Failure to do so could cause a serious unbalanced condition.
18. Safety shoes which comply with ANSI Z41.1 should be worn.
19. Personal hearing protection such as ear plugs or earmuffs should be used to protect against the effect of noise exposure.

Fire and Explosion Safety

Particles of all materials are potentially combustible or explosive. Never generate sparks or hot particles in the presence of easily combustible material. Non-metallic and non-ferrous particles and flammable substances are particularly dangerous. Examples: aluminum, magnesium, zinc, and their alloys; and petroleum finishing lubricants or compounds.

If your machine has been used for sanding light metal, do not sand sparking material (steel) without thoroughly cleaning the machine first. The residual light

metal dust could be ignited by sparks. An explosion could result.

Do not sand mixed materials in your sander. The sander, ductwork, and dust collector must be thoroughly cleaned before switching material.

You must comply with the following safety requirements:

1. Proper dust collection is essential for the safe operation of this machine. Do not operate without a dust collection system. The National Fire Protection Association (NFPA) has set up standards on dust collection. Obtain a copy of NFPA 65 and NFPA 91 to see these standards. See *Section 8.0 Dust Collection* for more information.
2. Clean the sander daily of combustible particles from the entire system including this machine, the hood, the dust collector ducts, and the dust collector machine. Properly dispose of the particles.
3. Keep sparks and flames (smoking, welding, etc.) at least 20 feet from sander and dust collection ductwork.
4. Never process short or work pieces that are too thick which could cause jams, forcing the hold-down shoes/rolls into the abrasive belt and creating sparks.
5. Additional precautions may be necessary for sanding materials which are flammable or have other hazardous properties. You should always consult the manufacturer of such materials for instructions on sanding and handling.
6. Ground machine and ductwork in accordance with National Fire Protection Association (NFPA) electrical codes.

General Electrical Safety

This machine should be grounded in accordance with the National Fire Protection Association (NFPA) electrical code and local codes and ordinances. The work should be done by a qualified electrician. The machine should be grounded to protect the user from electrical shock.

1. Hazardous voltage inside electrical enclosures. High voltage can shock, burn, or cause death due to arcing or contact. Disconnect power before servicing this machine. Only qualified personnel should open electrical enclosures.
2. DANGER! Before servicing this machine, the capacitor circuit must be de-energized. Wait 10 minutes after disconnection from electrical power for capacitors to discharge to safe voltage levels. Touching an energized capacitor can cause serious injury or death due to electrical shock.
3. This machine does not provide branch circuit protection. You must provide branch circuit protection in accordance with the National Electrical Code or Canadian Electrical Code.

4. Only replace a fuse with a new fuse of the same type and rating.

Wire Size

Caution: For circuits that are a great distance from the electrical service box, the wire size must be increased in order to deliver ample voltage to the motor. To minimize power losses and to prevent motor overheating and burnout, the supply conductors shall be 12AWG minimum with suitable voltage and temperature ratings for intended application.

Servicing and Maintenance Safety

1. Disconnect machine from electrical power source before adjusting, cleaning, repairing, changing accessories, or when general servicing and maintenance is done.

2. Always follow the instructions in this Operating Instructions and Parts Manual when changing abrasive belts, accessory tools, or parts.
3. Maintain all machine tools with care. Follow all maintenance instructions for lubricating and the changing of accessories. Do not modify or have makeshift repairs done to the machine. This not only voids the warranty but also renders the machine unsafe.
4. If there is any risk of tipping or sliding, the machinery must be bolted to the floor.
5. Never brush chips away while the machine is in operation.

Familiarize yourself with the following safety notices used in this manual:



This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.



This means that if precautions are not heeded, it may result in serious, or possibly even fatal, injury.



This means that if precautions are not heeded, it will result in serious or fatal, injury.

SAVE THESE INSTRUCTIONS

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3.0 Product Overview

The JET J-948WBSV Wide Belt Sander is a rugged, heavy-duty machine designed for maximum high production work in an industrial environment. The instructions in this manual will help you use this machine safely and productively.

If there are questions or comments, please contact your local supplier or JET. JET can also be reached at our web site: www.jettools.com.

Retain this manual for future reference. If the machine transfers ownership, the manual should accompany it.



Read and understand the entire contents of this manual before attempting assembly or operation! Failure to comply may cause serious injury!

Register your product online -

<https://jettools.com/support-us/product-registration>



3.1 Safety Features

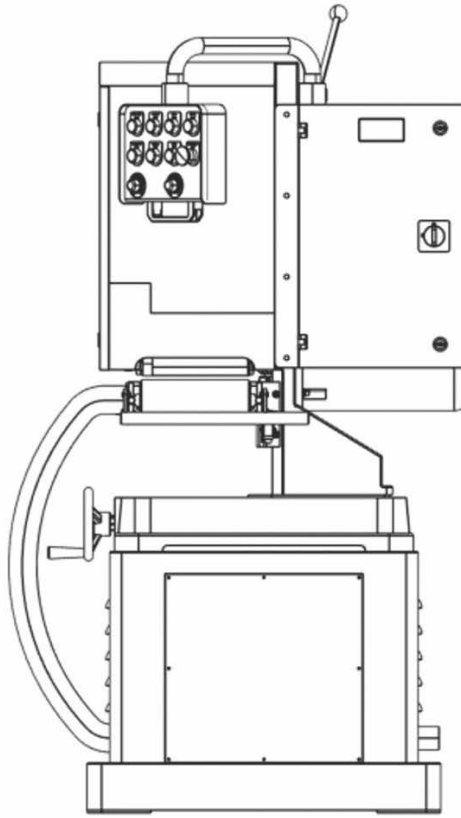
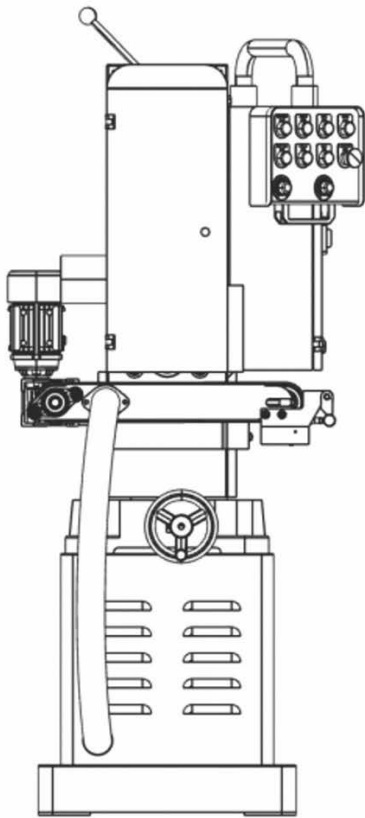
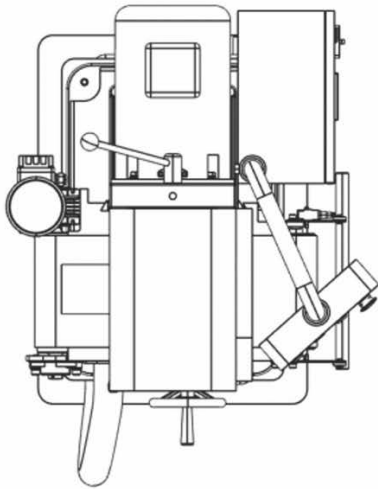
Your sander has several safety features built in. These features should be periodically examined to ensure they are functioning properly. Operation without these features can be dangerous.

Safety features include:

- Controls Buttons: On or near the controls panel.
- Enclosed Sanding Head: Shields personnel from sanding belt and some moving parts during operation.
- Emergency Stop Buttons: Operator-activated palm-style emergency stop buttons are located within reach of operator's workstation. – When activated, the machine stops within 4 to 7 seconds.
- Various Machine Guards: Restricts access to pinch points and moving parts.
- Attached DANGER and WARNING Labels: Alerts operators of potential hazards.
- Access Door Interlock Switches: Shuts down machine when an access door is opened.
- Lever Sensor: Located at infeed of the machine, this sensor activates the machines emergency stop system. Stops the machine within 4 to 7 seconds.

If any of these features are missing or not functioning, do not operate the machine. Notify your supervisor, safety director, and/or the machine manufacturer immediately.

3.2 Product Dimensions



Net Weight: 704lbs. (320kg)

Gross Weight: 860lbs. (391kg)

Overall Dimensions: 35.11" x 28.9" x 70.47" (892 x 735 x 1790 mm)

4.0 Specifications

Table 1

Model number	J-948WBSV
Stock number	JT1-550
Motor and Electrical	
Main Motor	5HP, 230V, 3Ph 13/6.3A 4P 60Hz
Conveyor Motor	1/4HP, 1.025/0.51A, 230V, 3Ph 4P 60Hz
Vacuum Motor	3HP, 230V, 3Ph, 7.8/ 3.9A, 2P 60Hz, 3500RPM
Transformer (TC1)	100VA UL 240V, 24V
Power source Voltage	230V 3ph
Full Load Ampere	230V (15A)
General Specifications	
Abrasive Belt	9" Wide x 48" Long , # 80 grit standard
Standing Capacity	70.8"H x 35.4"W x 25.6"L (1800x960x650mm)
Sanding Idle Roller (upper)	3.8" x L9.76" (98 x 248mm)/ D3" x L9.76"(80mmx248mm)
Sanding Contact Roller (Lower)	
Press Roller Size	D1.5" x L9"(38 x 240mm) one piece on front / one piece on back of sanding roller
Pass Line Height	0~4" (0-100mm)
Max Working Width	9" (228mm)
Min Thickness Capacity	1/16" (1.5mm)
Max Thickness Capacity	4" (100mm)
Max Sanding Thickness Limit	0.012" (0.30mm)
Min Work Piece Length (Non-Vacuum)	5.9" (150mm) pay attentions this capacity for user.
Min Work Piece Size with Vacuum	2"x 2"
Sanding Speed FPM	660~2500 FPM inverter driven
Conveyor Drive Speeds FPM	6-16 FPM Inverter Driven
Conveyor Feed Gear Box Rate	1/100
Infeed Conveyor Working Area	8.97" x 19.29" (228 x 490mm)
Conveyor Height at Lowest Setting	0 ~ 4" (0-100mm)
Conveyor Rubber Specification	228*1210mm (8.9"*47.63")
Table Height	32.67"-36.8" (from ground)
Dust Ports (Diameter x Quantity)	D4" * 1 (inner dia. Is 98mm/ out dia. 102mm)
Power Source Fuse Requirement	40A
Weights and Dimensions	
Net Weight	704lbs (320kg)
Gross Weight	860lbs (391kg)
Machine Overall Dimension	892x735x1790 mm(35.11" x 28.9" x 70.47")
Packaging Overall Dimension	L: 1050xW: 900xH:2080 mm (41.33" x 35.43"x81.88")
Container Capacity	12sets/ 20' , 26 sets/ 40'

⚠ WARNING

Read and understand the entire contents of this manual before attempting assembly or operation. Failure to comply may cause serious injury.

5.0 Unpacking and Setup

⚠ WARNING

Before setting up, adjusting, or operating this machine, read, understand, and follow the instructions and safety information in this owner's manual.

This machine is designed to operate at a high-performance level. When properly installed and operated, it will give you years of service. Read and understand this chapter before you unpack and setup this machine.

UNPACKING

Inspect contents of crate for shipping damage. Report any damage immediately to your distributor and shipping agent. Do not discard any shipping material until the machine is assembled and running properly.

CLEANUP

The unpainted surfaces of the machine are coated with a waxy oil to protect them from corrosion during shipment. Remove the protective coating with a solvent cleaner or a citrus based degreaser.

Optimum performance from your machine will be achieved when you clean all moving parts or sliding contact surfaces that are coated with rust preventive products.

Avoid chlorine-based solvents, such as acetone or brake parts cleaner. These solvents will damage painted surfaces and strip metal. Always follow the manufacturer's instructions when using any type of cleaning product.

SITE PREPARATION AND STORAGE LOCATION

When selecting the site for the machine, consider the largest size of workpiece you will process through the machine. Provide enough space around the machine for operating the machine safely. Provide additional space if installing auxiliary equipment. Leave enough space around the machine to open or remove doors/covers as required for maintenance and servicing.

The machine is intended for use in an ambient temperature of 32°F to 104°F (0°C to 40°C). Keep away from fire or oily areas.

LIFTING INSTRUCTIONS

This machine is extremely heavy. Serious personal injury may occur if safe moving methods are not followed. To be safe, you will need assistance and power equipment when moving the shipping crate and removing the machine from the crate.

Ensure access to the installation site is clear and that doors and ceilings are sufficiently high and wide enough to receive the machine.

INSTALLING MACHINE

What You'll Need:

- A set of open and closed metric wrenches
- A large adjustable wrench
- An accurate bubble-type level

Read all tags and decals attached to the machine. They contain needed information for the safe operation, proper placing, and setup of the machine.

1. Review the product identification drawings and exploded views in this manual for detailed construction of this machine.
2. Locate the electrical attachment points and dust collection outlets.
3. Move the machine to desired installation location. Allow space for opening doors, installing abrasive belts, and the infeed and outfeed of materials.

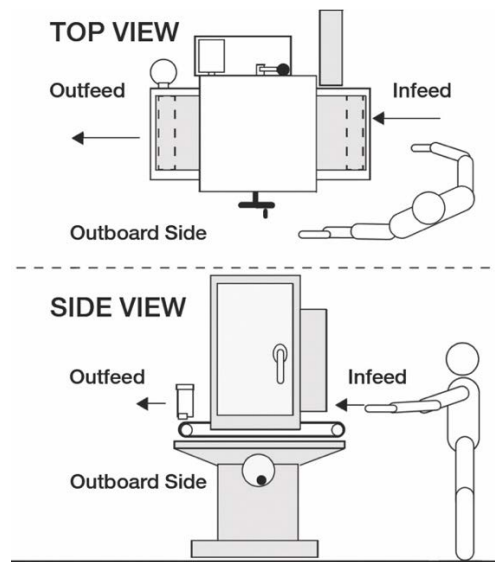


Figure 5-1: Typical Machine Layout and Orientation

4. Remove the shipping skid and all shipping blocks, brackets, or straps.
5. Install machine and base using supplied hardware. A crane, hoist, or other suitable lifting device must be used to lift, position, and hold the machine in place until securely fastened on top of the base.
6. Connect the electrical supply service. See *Section 6.0 Electrical Connections* for proper instructions.
7. Adjust the conveyor belt tracking by tightening conveyor belt adjustment bolt on the side in which the belt is overriding. Do not overtighten. If belt seems too tight, loosen the adjustment bolt on the opposite end.

⚠ DANGER

Operation without proper alignment can result in product kick out, which can cause severe injury or death. Check alignment of machine.

6.0 Electrical Connections

Caution: Follow all electrical codes. This machine is tested at the factory for operation before shipment and the power cord is tagged with the power requirements for the machine, as shipped. HOWEVER, before attempting any electrical hookup, you should be certain:

1. The electrical characteristics of the service branch match the requirements of the motor.
2. The service branch is equipped with wires of the required gauge or size.
3. The branch circuit intended for the machine is protected with a time delay fuse or circuit breaker with rated amperage just slightly greater than the full load current of the motor.

CAUTION All electrical service work on your JET sander should be performed by a qualified, licensed electrician who is familiar with all safe standard electrical installation practices and all applicable electrical codes. This includes local electrical codes which may affect the connection and operation of the sander in your specific manufacturing operation.

WARNING Supply voltages outside of these specifications may cause erratic operation of the machine. Supply voltages that are higher than the maximum may cause non-warranty damage to standard industrial components such as variable frequency drives.

6.1 Electrical Grounding

We recommend that you obtain a current copy of the National Electrical Codes and that you consult a licensed electrical contractor to assist you in connecting your electrical service and grounding system.

WARNING Connect your machine to an electrical ground in accordance with the National Electrical Codes, Article 250.

This recommendation is for your safety and on findings that static electric charges can be created by a moving abrasive belt or conveyor belt.

Three areas of this machine can be affected by a static charge:

- The abrasive belt sometimes will attract abraded particles. This will cause the inside or outside surface of the belt to form streaks of particles. This may show on the finished surface on your work piece. Changing the abrasive belt usually fixes this condition. A properly grounded machine will reduce the frequency of abrasive belt changes and improve the finish of the sanding process.
- Machine bearing life can be extended if static charges are reduced. Static charges that build up can erode bearing balls and races.

The exact method of grounding cannot be totally described here as it is dependent on local factors:

- Moisture content of your soil
- Type of soil
- Local codes
- ANSI/NFPA 70
- Your manufacturing process

(FPN No. 1): Systems and circuit conductor are grounded to limit voltages due to lightning, line surges, or unintentional contact with higher voltage lines, and to stabilize the voltage to ground during normal operation. Equipment grounding conductors are bonded to the system grounded conductor to provide a low impedance path for fault current that will facilitate the operation of overcurrent devices under ground-fault conditions. (ANSI/NFPA 70, Article 250)

(FPN No. 2): Conductive material enclosing electrical conductors or equipment, or forming part of such equipment, are grounded to limit the voltage to ground on these materials and to facilitate the operation of overcurrent devices under ground-fault conditions. (ANSI/NFPA 70, Article 250)

6.2 Power Connection

Before connecting to power, make sure the voltage (V), frequency (Hz), and phase (Ph) of the power source are compatible with this machine. The supply conductors shall be 10AWG minimum with suitable voltage and temperature ratings for intended application.

1. Check the supply power voltage. Use voltmeter to check if the supply power voltage is matched to the machine. This machine is supplied with 3-phase power, so L1 & L2, L2 & L3, and L1 & L3 all have to be checked.
2. Open the control box. Unscrew the terminals tagged L1, L2, L3, and ground. Insert the pin of the power wire of L1, L2, L3, and ground to each matched terminal and tighten the screw (see Figure 6-1).
3. This machine is supplied with shortage phase protector, therefore the L1, L2, and L3 connections are very important.



Figure 6-1: Electrical Connections

4. Note: The green and orange lights of the PSP must both be on (see Figure 6-2). If not, please interchange the L1 and L2 power cords.



Figure 6-2: PSP Green and Orange Lights On

In these cases, you must connect your machine to the service branch using a hardwired junction box connection.

7.0 Dust Collection

A dust collection system must be purchased separately. Proper dust collection is essential for the safe operation of this machine. Do not operate without a dust collection system. The National Fire Protection Association (NFPA) has set up standards on dust collection. Obtain a copy of NFPA 65 and NFPA 91 to see these standards.

The dust hood outlet in this machine must be connected to a properly-designed and properly-sized dust collection system. This dust collection system will supply the sander with the recommended static pressure and CFM. When these conditions are met, the dust hood will perform efficiently and maintain the proper pick-up and conveying velocities.

⚠ DANGER

The small particle size of most dusts makes them potentially explosive. A properly-designed and properly-sized dust collection system is essential to minimize the hazard of fire and explosion.

⚠ DANGER

Connect dust hood outlets to a properly-designed and properly-sized dust collection system supplying the sander with the recommended static pressure and CFM. Inadequate dust collection will present a hazard of fire or explosion.

⚠ WARNING

Long-term exposure to some dusts (including wood and metal dust) may cause adverse health effects. An efficient dust collection system is necessary to reduce exposure to these dusts.

7.1 Before Purchasing and Setting Up Your Dust Collection System

1. Consult OSHA, NFPA, and state and local codes related to dust collections systems.
2. Contact a reputable, qualified industrial ventilation contractor.

3. Contact a dust collector manufacturer, such as JET.
4. Know the fire hazards of the material being processed. Some materials, such as aluminum and magnesium, require special fire extinguishing equipment. Use of standard firefighting equipment will intensify the fire.
5. Notify the local fire department of the dust collector location and materials being processed.

7.2 For Metal Finishing Applications

- Maintain a minimum carrying velocity of 4500 FPM. (NFPA 65, 2-2.1)
- Oil preservatives and lubricants from previous operations supply fuel for a fire. They must be removed before sanding. (NFPA 91, 2-2.1)
- Duct systems, dust collectors, and dust producing equipment must be bonded and grounded to minimize accumulation of static charge (NFPA 65, 2-2.6).
- The manufacturer and the NFPA recommends a spark detection and extinguishing system be installed in your dust collection duct work.
- Good housekeeping and an efficient dust collection system, installed by a reputable qualified industrial ventilation contractor, will effectively remove dust build-up that is potential fuel for a fire.
- Consult NFPA codes when installing or modifying any dust collection system.

7.3 Connecting Dust Hood Outlet to Dust Collection System

This machine has a vacuum system. Use anti-fire, flexible dust collection hoses to connect to the dust collection system.

1. Connect the anti-fire, flexible dust collection hoses to the machine's dust hood outlets. You may use sheet metal screws or rivets to fasten the ducting to the dust hood outlets. The screws must be the minimum length needed to hold the ducting in place.



Figure 7-1: Connecting Dust Collection Hose to Dust Hood Outlet

8.0 Equipment Lockout

⚠ WARNING To prevent personal injury or equipment damage when the machine is being inspected or repaired, you must lockout the machine. Follow the instructions below to properly lockout this machine.

1. Every power source that can produce the movement of any machine part shall be shut off at the closest possible power source.
2. The mechanical energy of all parts of the machine must be reduced to a zero-energy state. The opening of any pipe, tube, hose, or the actuation of any valve must not produce any movement that could cause injury.
3. Holding a machine member against gravity or a spring force by a blocking member, by suspension, or by brackets or pins designed specifically for that purpose is permissible if:
 - o All machine members are at a zero-energy state.
 - o All machine members are secured against accidental motion.
4. A work piece or material supported or retained by the machine shall be considered part of the machine.
5. Any power source that can produce a machine movement will be locked and identified by the person signing the lockout tag and working on the machine.
6. When power sources have been locked out, a test must be performed to ensure that machine movement cannot be initiated.
7. The width of the working space provided in front of control cabinets and compartments shall be the width of the control cabinet or compartment but shall be not less than 1 meter.
8. The minimum headroom of working spaces around equipment where bare energized parts are exposed at any time shall be 7.3 feet (2.2 m), measured from the grade, floor, or platform, as appropriate.



Figure 8-1: Lockout Tags

Machine Lockout Procedure

1. Personnel authorized to lockout equipment must have the necessary number of locks to perform the job function.
2. Before proceeding with repair or inspection work, the employee must do the following:

- a. Physically disconnect all electrical power to the machine or lockout the appropriate breakers or disconnect switches.
- b. Close all valves for air hydraulic sources and bleed off any pressure that could result in any machine movement.
- c. Physically block all machine members that could move from gravity or spring pressure.
- d. Test lockout for power by attempting to start with the machine controls.
- e. Identify the Lockout Condition with a tag on the electrical disconnect and pneumatic shutoff valve.
- f. When the work is complete, restore the machine to its original state and remove all tags.
- g. Remove only the tags and the lock(s) you installed. If other personnel have placed additional locks on the machine, do not disturb or remove them.



Figure 8-2: Typical Lockout

9.0 Operating Instructions

⚠ WARNING Before setting up, adjusting, or operating this machine, read, understand, and follow the instructions and safety information in this owner's manual.

⚠ WARNING Disconnect machine from electrical power source before adjusting, cleaning, repairing, changing accessories, or when general servicing and maintenance is done.

⚠ WARNING Keep hands away from all moving parts including abrasive belt, revolving rolls, chains, and conveyor belt.

This sander can be used to remove stock from a wide variety of machinable materials. Different materials require different grit types and grades to achieve the desired stock removal rate and surface finish. Please consult with your abrasive materials supplier for specific recommendations on the correct grit material and grade required for your specific needs.

Before operating your sander, please read the basic instructions on safe machine usage in this manual.

If an abrasive belt is not installed, do so now. Refer to *Section 9.6.1 Installing Abrasive Belt* for instructions.

9.1 Machine Starting and Stopping

IMPORTANT: Before sanding work pieces, read the entire operating instructions and make sure this machine is properly adjusted and aligned. Also make sure you understand how to safely operate this machine.

Control Panel Functions

Before starting this machine, make sure you know what function is controlled by each control panel button or knob. See Figure 9-1.



Figure 9-1: Control Panel

1. Abrasive Belt Start Button
2. Abrasive Belt Stop Button
3. Abrasive Belt Speed Control
4. Conveyor Belt Start Button
5. Conveyor Belt Stop Button

6. Conveyor Belt Speed Control
7. Vacuum Start Button
8. Vacuum Stop Button
9. Emergency Stop Button – All machine functions stop when this button is pressed.



Figure 9-2: Main Power Switch

Starting the Machine

1. Make sure the machine is properly adjusted and aligned. See *Section 9.2 Aligning Sanding Head*.
2. Unlock and turn the Main Power Switch to the ON position (see Figure 9-2).
3. Set the machine for sanding your work piece. See *Section 9.3 Adjusting Machine for Material Thickness*.
4. Press the Abrasive Belt Start Button (#1) and adjust the belt speed with the Abrasive Belt Speed Control (#3).
5. Press the Conveyor Belt Start Button (#4) and adjust the belt speed with the Conveyor Belt Speed Control (#6).
6. If work piece is at least 2" x 2" in size, press the Vacuum Start Button (#7). Do not process work pieces smaller than 2" x 2".
7. The machine is now ready to receive work pieces.

Stopping the Machine

1. After the last work piece has been sanded, press the Abrasive Belt Stop Button (#2).
2. Press the Conveyor Belt Stop Button (#5).
3. If vacuum is used, press the Vacuum Stop Button (#8).
4. When all machine movement has stopped, turn the Main Power Switch to the OFF position. Lock out the switch using a small padlock.
5. Release the tension on the abrasive belt by turning the lift structure handwheel counterclockwise to lower the conveyor belt bed (see Figure 9-3).
6. Clean the machine of debris and sanding particles to ready it for the next use. Remove any particles from the machine and dust collection system that may cause a fire or explosion. See safety information under *Fire and Explosion Safety* in *Section 1.0 Important Safety Instructions*.
7. Clean any debris that has accumulated around the machine.

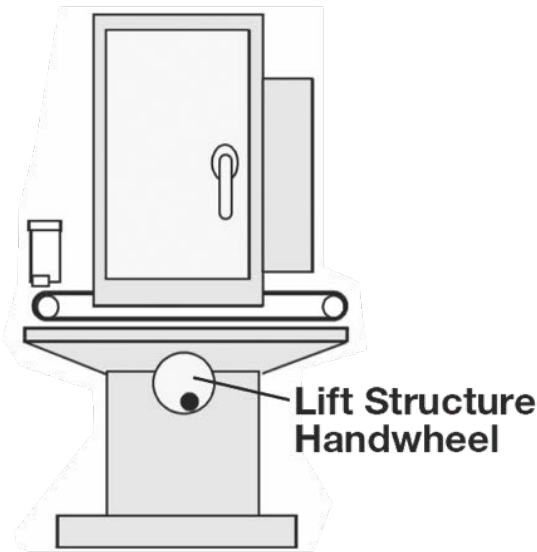


Figure 9-3: Lift Structure Handwheel

End of Day Shut Down

1. Follow the steps 1 thru 5 under *Stopping the Machine*, above.
2. Disconnect the machine from the electrical power source.
3. Clean the machine of debris and sanding particles to ready it for the next use. Remove any particles from the machine and dust collection system that may cause a fire or explosion. See safety information under *Fire and Explosion Safety* in *Section 1.0 Important Safety Instructions*.
4. Clean any debris that has accumulated around the machine.
5. Perform any needed preventative maintenance. See *Section 10.0 User Maintenance*.

9.2 Aligning Sanding Head

Your sanding machine was factory aligned, but it should be checked before use. Misalignment can occur during shipping.

Proper machine alignment is necessary for the safe operation of your machine. The pinch rolls must firmly hold the product to the conveyor belt. Improper alignment can result in product kickout and serious injury or death. Read and understand *Section 1.0 Safety Warnings*.

To avoid injury, always shut off the power and lockout the Main Power Switch using a small padlock before performing any adjustment, maintenance, or cleaning on this machine.

Read and understand these instructions before adjusting this machine.

Before aligning, the abrasive belt intended to be used should be installed and tensioned on the sanding head.

Proper alignment of the sanding drum and pinch rolls is essential for the safe operation of the sander. The following diagram shows the relationship between these components (see Figure 9-4).

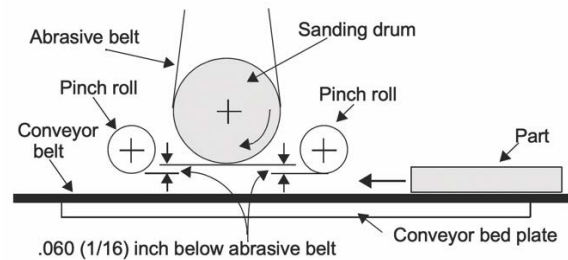


Figure 9-4: Components

Component Alignment

1. Check and adjust the center bar until both ends have equal drag on the set-up block.
2. Steps 1-6 should provide acceptable tolerances. To achieve higher tolerances, consider lightly dressing the conveyor belt.

Level and Align the Pinch Rolls

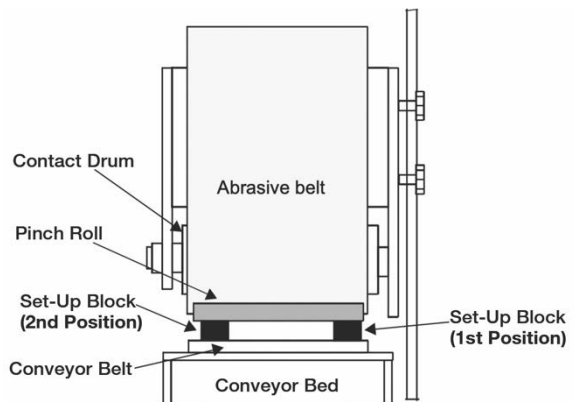


Figure 9-5: Placement of Set-Up Blocks for Pinch Roll Adjustment

3. Open the machine (lower the conveyor belt bed) and insert the set-up block between the abrasive belt and the conveyor belt (see Figure 9-5).
4. Carefully close the machine (raise the conveyor belt bed) until a firm drag is felt between the abrasive belt and the conveyor belt as the set-up block is moved back and forth.
5. Open the machine (lower the conveyor belt bed) $\frac{3}{64}$ to $\frac{1}{16}$ inch. Turn the handwheel counterclockwise two complete rotations. NOTE: 1 complete turn of the handwheel = approximately $\frac{1}{16}$ inch.
6. Insert the set-up block between one end of the pinch roll and the conveyor belt (see Figure 9-5).
7. Adjust the pinch roll until a firm drag is felt as the set-up block is moved back and forth.

To adjust the pinch roll, follow the instructions below and refer to Figure 9-6.

Lower the Pinch Rolls:

1. Loosen the upper jam nuts closest to the pinch rolls. The compression springs will then cause the pinch rolls to move down.
2. Re-tighten the upper jam nuts to make final adjustments as needed and to lock the pinch rolls in place.

Raise the Pinch Rolls:

1. Loosen the lower jam nuts.
2. Tighten the upper jam nuts to raise the pinch rolls as needed.
3. Tighten the lower jam nuts to lock the pinch rolls in place.
8. Move the set-up block to the other end of the pinch roll. Check and adjust. Re-check and adjust each end until both ends have equal drag.
9. Adjust and set pinch rolls.

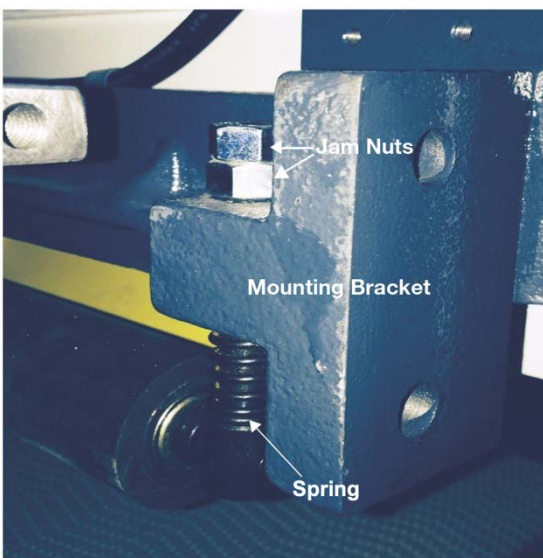


Figure 9-6: Pinch Roll Adjustment

Set the Spring Tension

⚠ WARNING The pinch rolls must always be below the sanding heads.

⚠ WARNING The spring force must be strong enough to prevent the product from sliding on the conveyor belt.

10. Loosen the lower jam nuts located below the springs. Loosen each nut until the spring tension is relieved (the spring is loose). Measure the spring then tighten the jam nuts to compress the spring $\frac{3}{32} - \frac{1}{8}$ inch. The spring should be compressed from the free length (not compressed) of 1-1/4 inch down to 1-5/32 inch.

9.3 Adjusting Machine for Material Thickness

⚠ WARNING Too small an opening for a work piece could present a kickback/kickout hazard and/or machine damage. Kickback and kickout are conditions when the work piece is ejected at high speed toward the infeed or outfeed of the machine.

Verify the machine opening is correct before running any work piece through the machine. Personal injury or death could result from kickback or kickout.

The abrasive belt must be in good condition, at proper tension, and tracking correctly before doing any sanding, grinding, or other abrasive machining operations. Refer to *Section 9.6.2 How to Track the Abrasive Belt* if you have any problems with belt tension or tracking.

1. Make sure the machine is disconnected from the electrical power source.
2. The machine opening is adjusted by raising or lowering the conveyor belt bed. Turn the handwheel counterclockwise to lower the conveyor belt bed until the opening is wider than the thickness of your work piece.
3. Place a work piece under the first sanding head. Raise the conveyor belt by turning the handwheel clockwise until a slight drag of the abrasive belt occurs on the work piece. Tip: Turning the abrasive belt by hand while raising the conveyor belt will help you determine when a slight drag occurs.
4. Lower the conveyor belt bed three turns (counterclockwise) of the handwheel (see Figure 9-3).
5. Remove the work piece from the conveyor belt.
6. Raise the conveyor belt bed three turns (clockwise) of the handwheel.
7. Connect the machine to the electrical power source.
8. Start machine. Place the work piece on the conveyor belt and allow it to advance through the machine. Examine the sanded work piece.
9. Adjust the conveyor belt bed up or down, depending on stock removal or finish required.
10. Set and use the dial indicator (located by the infeed of the conveyor belt) to adjust and control the amount of material to remove during one pass through the machine. One complete spin of the indicator needle equals 1mm (.039"). A typical pass will remove .25mm (.010"), which equals approximately 1/4 spin of the needle. Monitor motor amperage meter and resulting finish of parts. Initial part condition, belt grit selected, and desired finish will affect settings desired. More than one pass may be required.
11. Check for proper alignment. Adjust if needed. See *Section 9.2 Aligning Sanding Head*.

9.4 General Operating Tips

⚠ WARNING Kickback and kickout are conditions when the work piece is ejected at high speed toward the infeed or outfeed of the machine. Avoid kickback or kickout by never allowing work pieces to overlap, double feed, or ride on top of each other. Also make sure the sander opening is not too small for the work piece. Work piece must

be firmly held to the feed conveyor belt to control part. Do not stand directly in front or behind the conveyor. Stand to the side to stay out of the work piece path.

IMPORTANT: Keep your machine clean. A dirty machine can cause feed hesitation, stock slippage, poor tolerance, etc.

Release tension on conveyor belt when not in use for long periods of time. Do not over-tension the conveyor belt. Use only enough tension to properly drive and track the belt. Excessive tension will cause early failure.

Feed hesitation generally shows up as a rippled or wavy surface on the sanded product. The causes are readily identified by their length and location. A ripple is sometimes caused by the abrasive belt sanding longer over one part of the product, due to hesitation.

9.4.1 Chatter Calculation Formulas

The following formulas will help you in identifying the cause of defect marks for various drum diameters at different feed speeds. This should enable you to immediately identify any drum rotation or belt splice patterns.

1. Determine the conveyor speed in feet per minute (fpm).
2. Determine the contact drum speed in revolutions per minute (rpm).
3. Run a work piece through the machine.
4. Measure the distance between each defect mark.
5. Do each formula calculation.

If the drum is the cause of the marks on the work piece, the measurement you took will equal "Sd".

EQ 1

$$((Cfpm \times 12) \div (Drpm)) = Sd$$

<i>Cfpm</i>	Conveyor speed in feet per minute
12	Is inches in a foot (a conversion factor)
<i>Drpm</i>	Drum revolutions per minute
<i>Sd</i>	Spacing of marks on work part in inches

If the abrasive belt splice is the cause of the marks of the work piece, the measurement you took will equal "Sb"

$$((Cfpm \times 12) \times A) \div \{D\phi \times 3.14 \times Drpm\} = Sb$$

<i>Cfpm</i>	Conveyor speed in feet per minute
12	Is inches in a foot (a conversion factor)
<i>A</i>	Length of the abrasive belt in inches
<i>Dø</i>	Is the diameter fo the contact drum in inches
3.14	(pi), a diameter to circumference conversion
<i>Drpm</i>	Drum revolutions per minute
<i>Sb</i>	Spacing of marks on work part in inches

IMPORTANT: There may be more than one position of drum or belt causing marks, so check to see if some mark recurs cyclically at spacing shown.

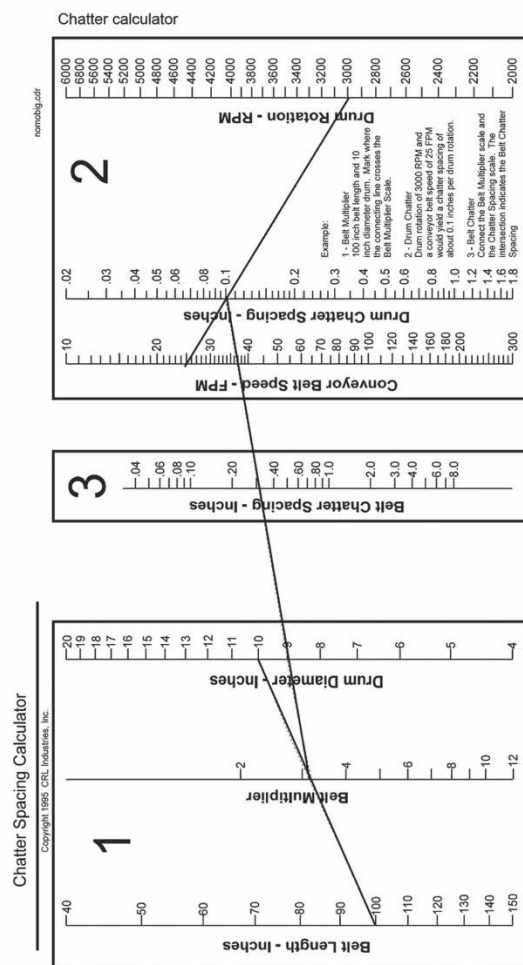


Figure 9-7: Chatter Calculator

9.4.2 Feed Hesitation and Work Piece Slipping

Feed hesitation generally shows up as a rippled or wavy surface on the sanded product. The causes are readily identified by their length and location. A defect on the surface of the product is sometimes caused by the abrasive belt sanding one part of the product too long due to hesitation or stock slippage.

1. A long depression near the leading edge of the product is most likely due to insufficient pressure on the infeed pinch rolls.
2. A long depression near the trailing edge of the product is most likely due to insufficient pressure on the outfeed pinch rolls.
3. Erratic waviness may be caused by one or more of the following:
 - o A flat spot on the pinch rolls. Do not allow material to build up on the pinch rolls.
 - o If your machine is equipped with U-joints: A bad U-joint on the pinch roll(s), billy roll(s), or sanding head(s) drive line. Replace damaged U-joint(s).
 - o A feed drive or head drive connector hub that is out of alignment. Realign the hub.
 - o Improper setting of the feed bed rolls or pinch rolls.
 - o Feed bed rolls or pinch rolls that are glazed or coated with the product dust buildup.
 - o A glazed, hard, or saturated conveyor belt that has lost its feeding quality. Most conveyor belts may be dressed to restore their driving friction. See *Section 9.4.2 Dressing Conveyor Belt* or *Section 9.7 Conveyor Belt Care*.
 - o The conveyor belt is slipping. If it is loose, tighten the take-up bolts and keep the conveyor belt and bed clean.
 - o Variable speed drive belt for feed drive reducer slipping. Check for worn belt and replace if necessary.

9.4.3 Typical Finish Defects

Chatter marks run crosswise, the full width of the work piece surface. The six usual causes of chatter are:

- o Lack of sanding pressure.
- o Vibration in the machine.
- o Uneven conveyor feed speed.
- o Bad bearings on any roll or contact drum.
- o Bad abrasive belt splice.
- o Out-of-round or flat spot in contact and/or main sanding drum.

Inadequate Sanding Pressure

If marks show up in spots on the work piece, it is probably due to inadequate sanding pressure or an uneven surface on the product. Close the machine opening to increase sanding pressure. If marks run across the full width of the work piece and are evenly spaced over its full length, the problem is probably not

pressure. Consider problems with vibration, part feed hesitation or the contact roll.

Vibrations

If the machine is part of a new installation, check the floor on which the machine is mounted and determine if it is level. If it is not level, adjust so the machine operates in a level condition.

Vibrations in the machine generally result from out-of-balance idler or contact rolls, worn V-belts, or an out-of-balance motor pulley. If this develops, check the V-belts. Then check the contact, feed roll, and motor bearings. If the contact or idler roll have been changed or the contact roll dressed, check them for balance and adjust as necessary.

Part Feeding Hesitation (variable feed speed drive only)

After vibration has been ruled out as a problem, check the conveyor feed. Run a piece of material through the machine at any feed speed and measure distance between the defect marks. Change the feed speed and run a second piece of material through the machine and measure the distance between the defect marks. If the distance between the marks on each part is the same, the problem is in the feed drive. Clean the conveyor. Check the conveyor belt and rolls for feed quality. Dress the belt if it is necessary. See *Section 9.4.2 Dressing Conveyor Belt*. Check to make sure there is not excessive backlash in the chain or the gear reducer. Correct the condition if it exists.

Contact Roll

The contact roll should be checked for roundness if it has recently been dressed or changed. A dial indicator is used for an accurate measurement. A rough roundness indication can also be made. Manually rotate the roll while holding a piece of chalk lightly and steady against the roll. Move the chalk across the face of the roll as it rotates. It will touch the high spots on the roll, marking them. This does not show the depth of the low spots as does a dial indicator. If the drum is slightly out, it can be dressed. Refer to *Section 9.5.1 Sanding Head Contact Drum Grinding*. If the drum cannot be dressed, it may need to be replaced.

Chatter Marks

Chatter marks on the product are most often caused by the sanding belt splice. A good way to check is to use a black crayon to mark the splice. Run a new, clean work piece through the machine. If the belt splice is the problem, the black crayon will mark the work piece with chatter marks. Most of the time, using more pressure or making a heavier cut into the product will cure chatter. An exception to this guideline is a product

application on a machine with a hard contact drum that is not designed for finishing.

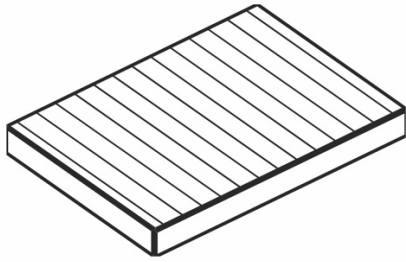


Figure 9-8: Chatter Marks

Causes

- o Belt Splice.
- o Worn contact drum bearing.
- o Vibration in the machine.
- o Worn drive motor bearings.
- o Worn idler roll bearings.
- o Loose or worn drive belts.
- o Flat spots on the drum.
- o Out of balance drum or idler.
- o Conveyor bed not feeding at a constant rate.

Remedies

- o Use an abrasive belt with a butt splice.
- o Replace the contact drum bearing.
- o Identify and stop the machine vibration.
- o Replace the drive motor bearings.
- o Replace the idler roll bearings.
- o Tighten the drive belts.
- o Replace or dress the contact drum.
- o Balance the contact drum.
- o Check the conveyor bed drive coupler/drive belt.
- o Relieve tension from the abrasive belt when it is not in use to avoid flat spots on drums.

Streaks – Wavy Type

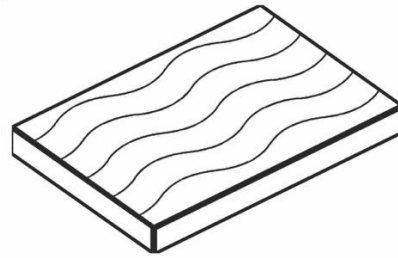


Figure 9-9: Streaks – Wavy Type

Causes

- o Loaded or damaged abrasive belt.

Remedies

- o Replace the abrasive belt.
- o Use a lighter cut.
- o Use another type of abrasive belt (open coat).
- o Slow the conveyor bed speed (belt will not load).
- o Stagger part on bed (do not use only one area of abrasive belt).
- o NOTE: At first, you may need to run parts using a coarser grit for part clean-up.

Streaks – Straight Type

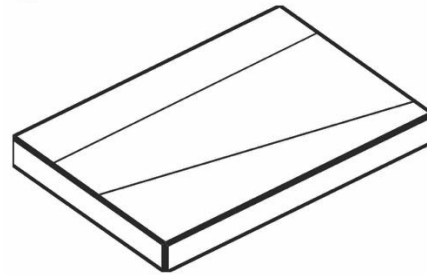


Figure 9-10: Streaks – Straight Type

Causes

- o Mark on sanding drum.
- o All of the abrasive material on the abrasive belt is worn in straight line (with belt set to a narrow track).
- o Pinch roll(s) not turning.

Remedies

- o Replace the sanding drum and bearings.
- o Remove large burrs or sharp edges on the product before sanding.
- o Grind with a coarser grit sandpaper first.
- o Replace the pinch roll(s) or the pinch roll bearings.

Dubbing Leading and/or Trailing Ends

Dubbing is caused by incorrect pinch roll spring tension or height adjustment.

1. If a dubbing leading edge should occur, lower the infeed shoe or roll slightly.

2. If a dubbing trailing edge should occur, lower the outfeed shoe or roll slightly.
 - o A dubbing trailing edge could be caused by excessive infeed shoe or roll pressure.
 - o Dubbing on leading end of material is caused when part is forced into outfeed pinch roll which is too low or too much spring tension.
 - o Dubbing on trailing end of material is caused when part comes out of infeed pinch rolls which are too low or have too much spring tension.
 - o NOTE: A dubbing trailing edge could be caused by excessive infeed shoe or roll pressure.

CAUTION

There may be more than one position of drum or belt causing marks. Check to see if some marks recur periodically at spacing shown.

9.5 Sanding Head Contact Drum Care

9.5.1 Sanding Head Contact Drum Grinding

Should surface damage occur to a contact drum, the drum must be removed from the machine and ground/dressed on a lathe. This procedure is for rubber covered drum only.

DANGER

Do not attempt to dress/grind the contact drum while it is in the machine. Personal injury or death as well as machine damage could occur.

Use care when removing a drum assembly from the machine. The drum looks small, but it can be heavy and awkward to handle when removed. Injury can occur if safe handling methods are not used. Review the OSHA and ANSI standards for correct handling of heavy machine parts.

After grinding, the contact drum will have a reduced diameter. The sanding head and pinch rolls will need to be realigned.

9.5.2 Removing Drum Assembly

1. Turn main power switch to OFF position and lock out. Disconnect the machine from the power source. Wait for the machine to come to a complete stop.
2. Open the machine's outboard door to access the abrasive belt.
3. Move to the machine's inboard side and rotate the cam tension handle clockwise. This removes the tension from the abrasive belt.
4. Move to the machine's outboard side and remove the old abrasive belt by sliding it off of the idler roll and sanding head.
5. Place a piece of cardboard or similar material on the conveyor belt. This will protect the belt and drum from damage when you remove the drum assembly.

6. Lower the drum assembly until the blocking just touches the contact drum.
7. Remove the two bearing retention screws that hold outboard bearing in place.
8. Remove the collar by loosening the socket head cap screw.
9. Remove the socket head cap screws holding the bearing support member to the center bar.
10. Remove the bearing support member from the center bar. Tap the bearing support member off of the spring clip alignment pins.
11. Remove the two set screws holding the sanding drum shaft to the motor shaft.
12. Remove the drum shaft from the motor shaft through the outboard side (belt loading side) of the machine. Note: There is a slot in the motor end of the drum shaft. As steel wedge can be used in the slot to remove the drum shaft from the motor shaft.
13. Reverse the procedure for reinstalling the drum.

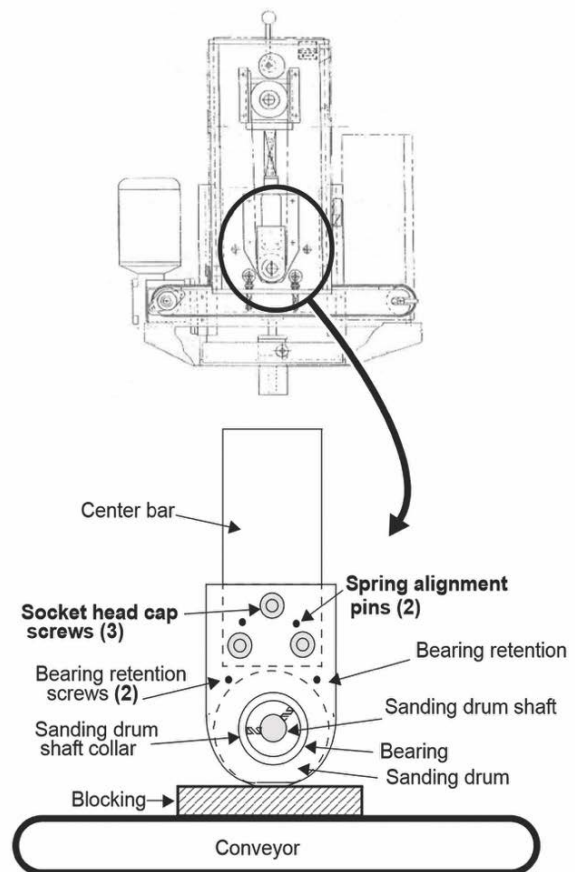


Figure 9-11: Sanding Head Components

9.6 Abrasive Belts

9.6.1 Installing Abrasive Belt

Refer to Figures 9-12 and 9-13 when following these instructions.

1. Turn main power switch to OFF position and lockout. Disconnect the machine from the power source. Wait for the machine to come to a complete stop.
2. Open the machine's outboard door to access the abrasive belt.
3. Move to the machine's inboard side and rotate the abrasive belt tension handle clockwise (see Figure 9-12). This rotates the cam which forces the idler roll down and compresses the idler roll tension spring. This removes the tension from the abrasive belt.
4. Move to the machine's outboard side and remove the old abrasive belt by sliding it off of the idler roll and sanding head (see Figure 9-13).
5. Install the new abrasive belt, positioning the arrow printed on the inside of the belt with the direction of the drum rotation. NOTE: Some abrasive belts do not have an arrow printed on the inside surface. Read the instructions that come with your abrasive belt to determine the correct mounting direction. Be careful not to nick or tear the edge of the abrasive belt.
6. Center the abrasive belt on the idler roll.
7. Move to the machine's inboard side and rotate the cam tension handle counterclockwise. The spring-loaded idler roll will apply the correct tension to the abrasive belt.

Before running machine, you must adjust the tracking of the abrasive belt. See *Section 9.6.2 How To Track the Abrasive Belt* to properly adjust the belt tracking.

IMPORTANT: Do not leave tension on the belt for an extended period of time if the machine is not running.

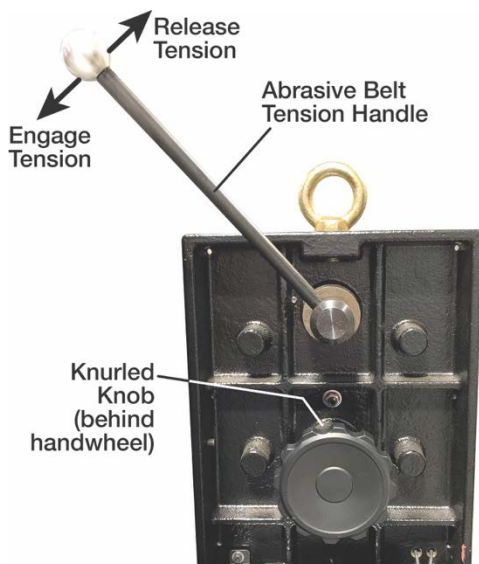


Figure 9-12: Installing Abrasive Belt

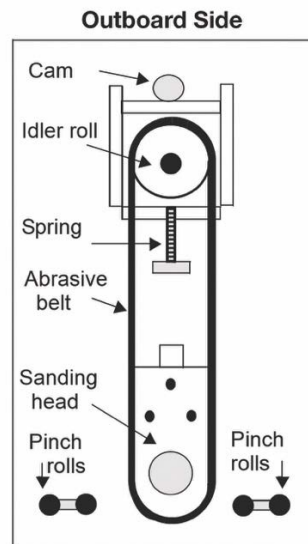


Figure 9-13: Installing Abrasive Belt

9.6.2 How To Track the Abrasive Belt

⚠ DANGER Keep hands and all body parts away from any moving machine parts during this procedure. Do not wear loose clothing, gloves, jewelry, or unrestrained hair which can get caught in moving parts.

NOTE: Different belt brands have different length tolerances and tensions. After adjusting tracking, we advise that you continue using the same brand of abrasive belts. The use of different brand belts will increase the need of tracking adjustment when replacing the belt.

When a new belt is installed, or if troubleshooting belt tracking issues, review and adjust the abrasive belt tracking. Adjust the tracking by turning the knurled knob (trim adjustment) located on the inboard side of the machine. Turning the knob causes the idler roll to tilt up or down. When the top idler roll moves up, it will cause the abrasive belt to track to the inboard of the machine (drive train side). When it moves down, it will cause the abrasive belt to track to the outboard (belt loading) side. Viewing the belt position can be done through the tracking window on the infeed side of the panel.

When the belt tracking is properly adjusted, the auto tracking bracket oscillates left to right from one switch to the other. This can be viewed through the tracking window. See Figure 9-14. If you do not see proper oscillation, adjustment may be needed.

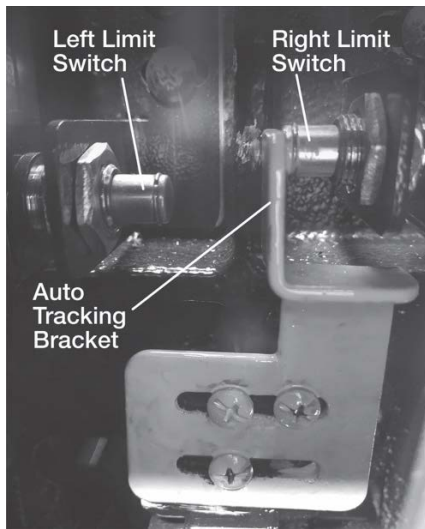


Figure 9-14: Tracking Mechanism and Tracking Switches

The factory limit set screw (see Figure 9-15) limits you from adjusting the left direction of travel too far, allowing the belt to travel off the outside end of the top roller. This set screw is preset at the factory and should not require adjusting.

The adjustment tuning knob (see Figure 9-15) allows for fine tuning the tracking and centers the abrasive belt on the roller. Adjust this knob to balance the auto tracking bracket to oscillate left to right from one limit switch to the other (see Figure 9-14).

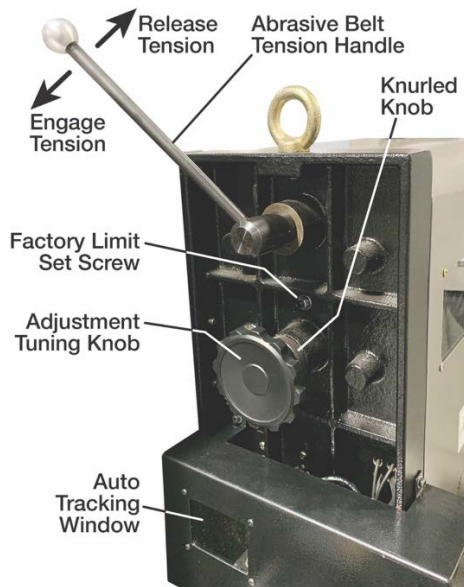


Figure 9-15: Factory Limit Set Screw and Adjustment Tuning Knob

TRACKING TO THE LEFT ADJUSTMENTS

Perform these adjustments if abrasive belt is tracking to the left or moving off the upper roller to the left.

Observe through the auto tracking window and belt tracking window. If the auto-tracking bracket is oscillating to the left and only touching the left switch and not the right switch, or the abrasive belt is moving

left and off the end of the top roller and tripping the limit switch, perform the following adjustments:

1. Loosen the large, knurled nut behind the adjustment tuning knob (see Figure 9-15). This will allow you to quickly adjust the belt tracking when needed.
2. On the control panel, turn the abrasive belt speed control (see Figure 9-1) to the lowest speed.
3. Turn the main power switch to the OFF position.
4. Release tension from the abrasive belt by rotating the abrasive belt tension handle clockwise (see Figure 9-15).
5. Open the sanding cabinet door.
6. Center the belt on the upper roller, left to right.
7. Rotate the sanding belt clockwise by hand (facing the front of the machine) to make sure it does not interfere with other parts.
8. Apply tension to the abrasive belt by rotating the abrasive belt tension handle counterclockwise (see Figure 9-15).
9. Close the sanding cabinet door.
10. Turn the main power switch to the ON position.
11. Start the abrasive belt drive only and move immediately to the auto tracking window to observe the auto tracking bracket (see Figure 9-14).
12. Turn the adjustment tuning knob clockwise very slowly while observing the auto tracking bracket moving progressively toward the right limit switch.
13. When the auto tracking bracket is moving from left to right and is touching both the left and right limit switches, the belt tracking is properly centered. Hold the adjustment tuning knob in place and re-tighten the large, knurled nut to lock the adjustment tuning knob in place.

TRACKING TO THE RIGHT ADJUSTMENTS

Perform these adjustments if abrasive belt is tracking to the right or moving off the upper roller to the right.

Observe through the auto tracking window and belt tracking window. If the auto-tracking bracket is oscillating to the right and only touching the right switch and not the left switch, or the abrasive belt is moving right and off the end of the top roller and tripping the limit switch, perform the following adjustments:

1. Loosen the large, knurled nut behind the adjustment tuning knob (see Figure 9-15). This will allow you to quickly adjust the belt tracking when needed.
2. On the control panel, turn the abrasive belt speed control (see Figure 9-1) to the lowest speed.
3. Turn the main power switch to the OFF position.
4. Release tension from the abrasive belt by rotating the abrasive belt tension handle clockwise (see Figure 9-15).
5. Open the sanding cabinet door.

6. Center the belt on the upper roller, left to right.
7. Rotate the sanding belt clockwise by hand (facing the front of the machine) to make sure it does not interfere with other parts.
8. Apply tension to the abrasive belt by rotating the abrasive belt tension handle counterclockwise (see Figure 9-15).
9. Close the sanding cabinet door.
10. Turn the main power switch to the ON position.
11. Start the abrasive belt drive only and move immediately to the auto tracking window to observe the auto tracking bracket (see Figure 9-14).
12. Turn the adjustment tuning knob counterclockwise very slowly while observing the auto tracking bracket moving progressively toward the left limit switch.
13. When the auto tracking bracket is moving from left to right and is touching both the left and right limit switches, the belt tracking is properly centered. Hold the adjustment tuning knob in place and re-tighten the large, knurled nut to lock the adjustment tuning knob in place.

NOTE: if rotating the adjustment tuning knob counterclockwise results in a loss of tension in the tuning knob that prohibits the auto tracking bracket from moving towards the left limit switch, the factory limit set screw (see Figure 9-15) will require adjustment. Carefully follow the factory limit set screw adjustment steps below.

ADJUSTING FACTORY LIMIT SET SCREW

Adjusting the factory limit set screw should rarely be required. If needed, perform this adjustment with care. This adjustment will also require a tracking to the right adjustment. All the steps will be the same except for two specific steps; one prior to tracking adjustment and one after tracking adjustment.

To adjust the factory limit set screw:

1. Insert a 4mm hex wrench into the set screw. Using a 12mm open end wrench, loosen the jam nut (see Figure 9-16).
2. Turn the set screw no more than one full turn counterclockwise. This will provide a gap to the internal bracket and allow further adjustment of the belt tracking to the left.
3. Perform the tracking adjustment steps under, If Tracking to the Right Adjustments, above. Repeat this adjustment until the belt tracks correctly.
4. Return to the factory limit set screw and turn clockwise until contact is felt with the internal bracket. Do not apply tensions. This should be less than the one full turn counterclockwise made in step 2.
5. Hold the set screw in place while tightening the jam nut.

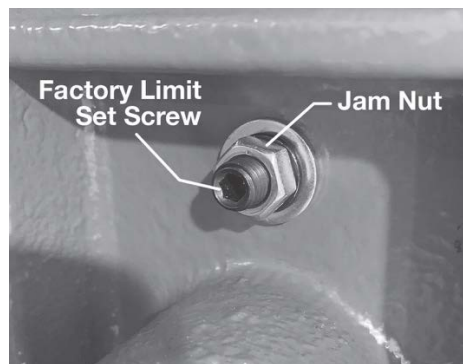


Figure 9-16: Factory Limit Set Screw and Jam Nut

9.6.3 Abrasive Belt Care

WARNING

Never clean the abrasive belt while it is in the machine. Severe bodily injury can occur. Remove the abrasive belt from the machine before attempting to clean.

Consult your abrasive belt sales representative to determine the correct type, backing, and grit needed.

- o Consult your abrasive belt sales representative for recommended storage and treatment of abrasive belts.
- o Low humidity causes abrasive belts to become brittle. A brittle belt is easily nicked and will break.
- o High humidity causes abrasive belts to become limp and crease easily.
- o Distribute wear on the abrasive belt by staggering the product across the full width of conveyor for sanding products.
- o Schedule to sand wide products first, then narrower, etc., to the narrowest product last. This reduces the possibility of an objectionable mark caused by product being sanded with a used and unused portion of the abrasive belt at the same time.
- o When narrow product is being run, utilize unused portions of the abrasive belt by placing each piece on a different area of the conveyor belt.
- o A nick or tear along the edge will cause premature belt breakage. Replace the belt.
- o Install abrasive belt with care before starting main motor, turning the belt by hand to check alignment between idler roll and contact drum.
- o A cocked belt may crease or break under power.
- o Release tension on abrasive belt when not in use.
- o Store abrasive belts in a controlled environment. Follow manufacturers recommendations.

- o Store abrasive belts on a rack for best results and longer belt life (see Figure 9-17). Use one rack per abrasive grit grade.

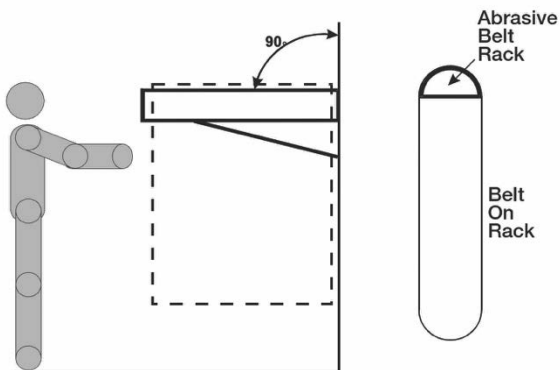


Figure 9-17: Storing Belts

9.7 Conveyor Belt Care

9.7.1 Changing Conveyor Belt

The following steps require disassembling a number of parts. Mark each part for future identification. Place small parts in a container to keep them from getting lost. Some parts are heavy. A second person should assist with removing and installing these parts.

1. Turn main power switch to OFF position and lock out. Disconnect the machine from the power source. Wait for the machine to come to a complete stop.
2. Loosen and remove the two conveyor belt adjustment bolts located on the right and left side of the conveyor belt at the infeed end of the machine. This will create looseness and slack in the conveyor belt. See Figure 9-18.
3. Lift the conveyor belt out of the machine.
4. Reverse this process for reassembly.
5. Align the conveyor belt bed to the sanding head before using the machine.

IMPORTANT: Make sure the new conveyor belt is installed so it rotates in the same direction as the old conveyor belt. Use the directional rotation arrow marking on the new conveyor belt as a guide. If there is no directional rotation arrow marking, check the belt to identify the “leading edge” of the joint. The leading edge of the joint points towards the direction of the belt rotation. See Figure 9-19.

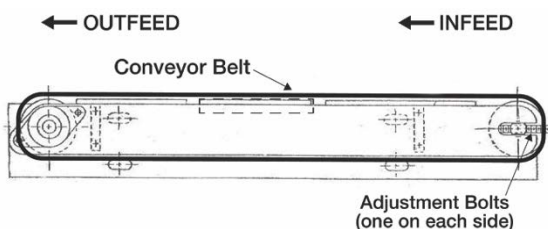


Figure 9-18: Changing Conveyor Belt

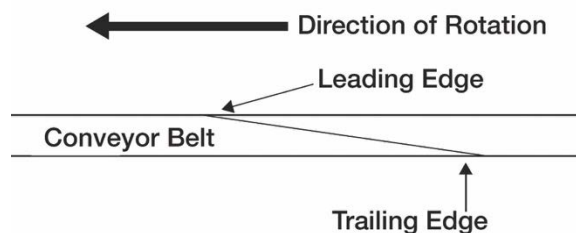


Figure 9-19: Identifying the Leading Edge of Conveyor Belt Joint

9.7.2 How To Track the Conveyor Belt

As the conveyor belt rotates around the conveyor bed, it can shift to one side or the other. It can be adjusted to follow the correct path/track around the conveyor bed. This adjustment is called tracking the conveyor belt. It is also called, “track the belt”. The belt should track in the center of the conveyor bed.

The conveyor belt must be turned ON to make adjustments.

Adjust the conveyor belt tracking with the conveyor belt adjustment bolt on each side of the conveyor (see Figure 9-18).

- o Tighten the right-side adjusting bolt to move the conveyor belt to the left.
- o Tighten the left-side adjusting bolt to move the conveyor belt to the right.

Do not overtighten the belt. The conveyor belt should be just tight enough to rotate around the conveyor bed without slipping. If it seems too tight on a side, loosen the adjustment bolt on the opposite side of the conveyor.

CAUTION Do not overtighten the conveyor belt. The conveyor belt or the roll bearings could fail prematurely by overtightening.

10.0 User Maintenance

⚠WARNING Before doing any maintenance on the machine, turn main power switch to OFF position, lock main power switch, and disconnect machine from electrical supply. Failure to comply may cause serious injury.

We recommend that the employer review the following codes to assure employee safety compliance:

JIC: Joint Industrial Council

OSHA: Occupational Safety Health Act 1970

NFPA: National Fire Protection Association Federal, State, or Local Codes, as applicable.

The practices and procedures described in the above codes and regulations are intended to be implemented by the employee, but it is the responsibility of the employers that their employees use these safety-related work practices.

Always be alert when working near exposed energized parts and work situations where unexpected electrical hazards may exist.

Do not reach blindly into areas that may contain energized parts.

Do not permit employees to work in areas containing exposed energized parts or other electrical hazards if their ability to be alert is impaired due to illness, fatigue, under the influence of drugs or any other reason.

Before power is restored to the machine, alert all personnel in the area to stand clear.

10.1 Lubrication

Use a good grade of multi-purpose, medium-high, temperature-extreme, pressure grease for normal to heavy-duty applications. Example: Mobil XHP222.

The amount of operation or running time controls the frequency of lubrication cycles. A machine that is operated on a three-shift basis will consume three times as much grease as a machine used on one shift only.

Lubricate the Following Components as Indicated:

Sanding Head with Contact Drum

- o Contact drum bearing – sealed.
- o Idler roll bearing w/zerks – grease every 150 hours.

Conveyor Bed with Conveyor Belt

- o Drive roll bearings – grease every 300 hours.

Gear Reducers

- o Gear reducers are sealed and don't require lubrication.

Conveyor Bed Slides

- o Grease every three to four months.
- o When machine is equipped with guide bars on the frame and a slide block on the conveyor

bed, clean off old grease and lubricate with any good grade of grease.

10.2 Daily Machine Checks

Before, during, and after each use:

1. Clean dust from machine daily or more frequently, in needed.

⚠DANGER The small particle size of most dusts makes them potentially explosive. A properly-designed and properly-sized dust collection system is essential to minimize the hazard of fire and explosion. See Section 7.0 Dust Collection.

2. Check pinch rolls once a week or anytime a jam-up occurs in the machine. Adjust as required.
 - o The pinch rolls should be set approximately 1/16 inch below the level of the abrasive belt for the top surface sanding drum. See Alignment for setting pinch rolls.

⚠DANGER Pinch roll adjustment is important to maintain an even feed through the machine and to reduce kickback or kickout of work piece. The high velocity of a kickback or kickout presents a hazard of severe personal injury or death.

3. Examine the condition of the conveyor belt. The conveyor belt is considered a low maintenance item, if it is used as intended.
 - o Machine jam-ups or the processing of thin parts can shorten the useful life of the conveyor.
 - o Processing of thin parts exposes the conveyor to the abrasive belt and will accelerate wear. In thin part processing, the conveyor must be considered an expendable item and will require more frequent replacement.

The conveyor bed is a primary factor in holding machine processing tolerance and must remain in an acceptable condition. Early detection of accelerated wear is important. Replace belt when required. The useful life should be determined based on monthly inspection and a replacement belt should be ordered before the machine can no longer produce an acceptable product.

10.3 Weekly Safety System Check

Test and Verify

1. When the Emergency Stop Button is pushed, the system was designed to perform the following:
 - a. Turn off all sanding and/or brush heads.
 - b. Turn off conveyor feed drive.
2. Door interlock limit switches:
 - a. Visually check limit switches for manual bypass which would make the system nonfunctional.
 - b. Verify that the circuits and equipment are in proper working condition.

- c. The following procedure should be used to check out this system:
 - o Have all personnel stand clear of the machine.
 - o Start machine sanding heads and conveyor feed drive.
 - o Open the abrasive belt loading access door.
 - d. The safety interlock system was designed to perform the following:
 - o Turn off all sanding and/or brush heads.
 - o Turn off conveyor feed drive.
 - e. The door safety interlock system is a vital element in protecting the operators from hazardous moving components and must be maintained in proper operating condition (NFPA 70E).
3. Machine safety guards are in place.
 4. All Emergency Stop Buttons are tested.
 5. Check machine safety decals and operating instruction tag for legibility and make sure that they are in place.

10.4 Monthly Machine Checks

1. Examine the rubber covered rolls for wear, delamination, grooving, or gouging. Roll covering defects on contact drums will be transmitted to the product being sanded and could make your product commercially unmarketable.
2. Inspect all the rubber covered rolls in the machine. If there is excessive wear or damage, contact JET Technical Service at 1-800-274-6846 for the best course of action.
3. Inspect and test the safety equipment supplied on this machine to assure the safety of personnel operating this machine.
4. Test the following items to make sure they are in good operating condition and that they perform the tasks intended.
 - o The Emergency Stop Button was designed to provide the operator with a convenient method to initiate the machine emergency stop.
 - o Verify that the circuits and equipment are in proper working condition (NFPA-70E).

- o Visually check the limit switch used in this circuit for damage or mechanical by-pass which would make the system nonfunctional.

We recommend that you observe the machine while it is in operation. Production down-time can be held to a minimum if problems are detected early. This will allow you to obtain replacement parts and schedule maintenance at appropriate times.

We strongly recommend that you keep a maintenance logbook as a permanent machine record. Using the history of a machine is a good method to determine future replacement part needs.

10.5 Cleaning

Your machine is designed to operate at a high-performance level. Proper care and maintenance is required to keep this machine in top working condition. The method and care used to maintain this sander affects its sanding performance and ability to hold tolerances.

The frequency of cleaning will depend on the environment the sander is placed in and how often you use it. We recommend that you clean your sander daily.

Use a brush to clean surfaces, conveyor holes, lifting screw, dove tails, etc.

NOTICE

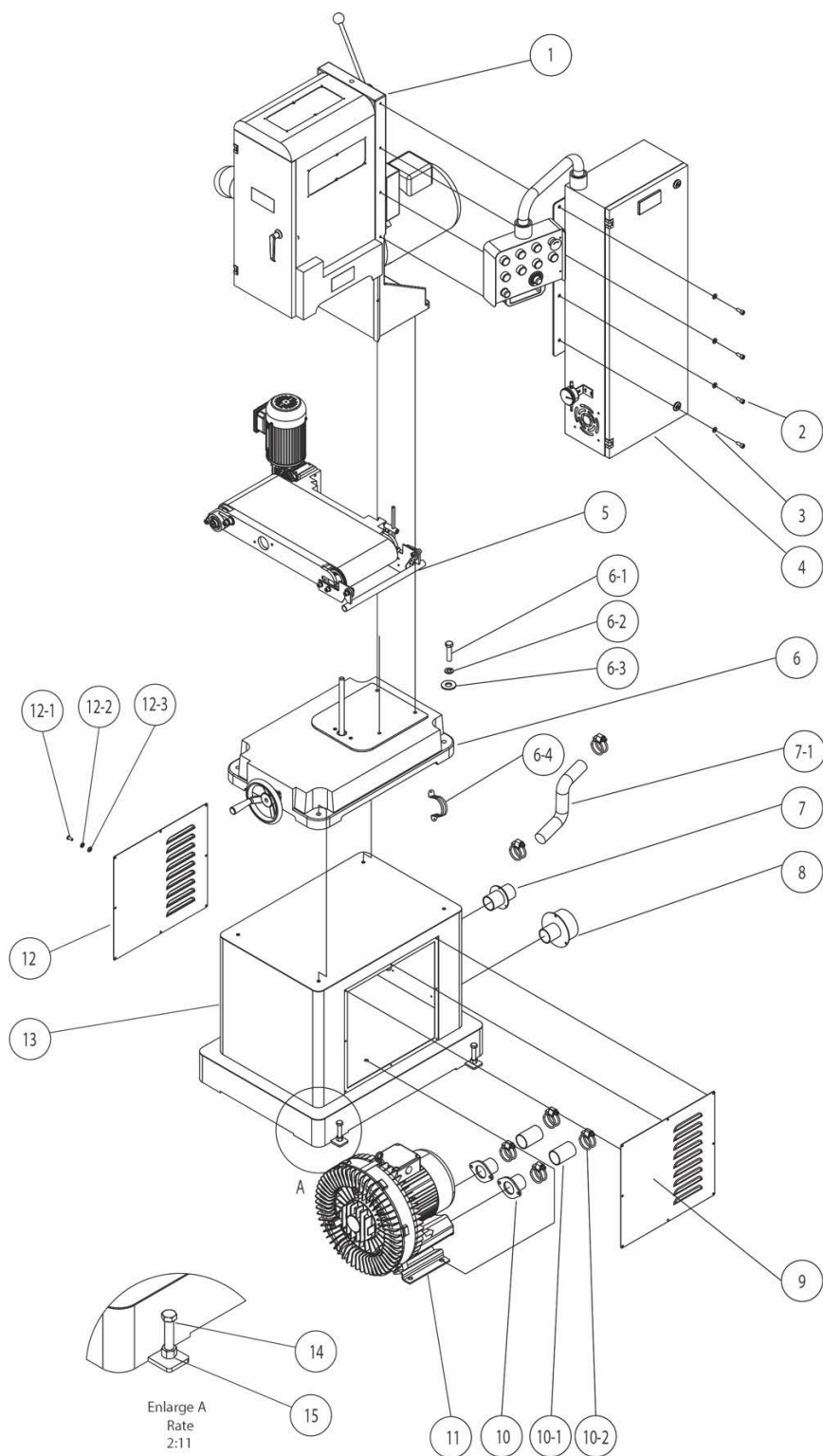
Cleaning this sander is considered normal maintenance and danger exists if not performed according to instructions. Follow the instructions below to clean the sander.

1. Turn off all power to abrasive head and feed drive.
2. Turn main power switch to OFF position and lock out. Disconnect the machine from the power source. Wait for the machine to come to a complete stop.
3. Turn on your dust collection system. This will help collect the dust you will stir up when cleaning the sander.
4. Open the outboard door (belt loading door).
5. Move slide valve(s) or tension cylinder air valve(s) to retract idler roll(s).

11.0 Replacement Parts

Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 Monday through Friday, 8:00 a.m. to 5:00 p.m. Central Time. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

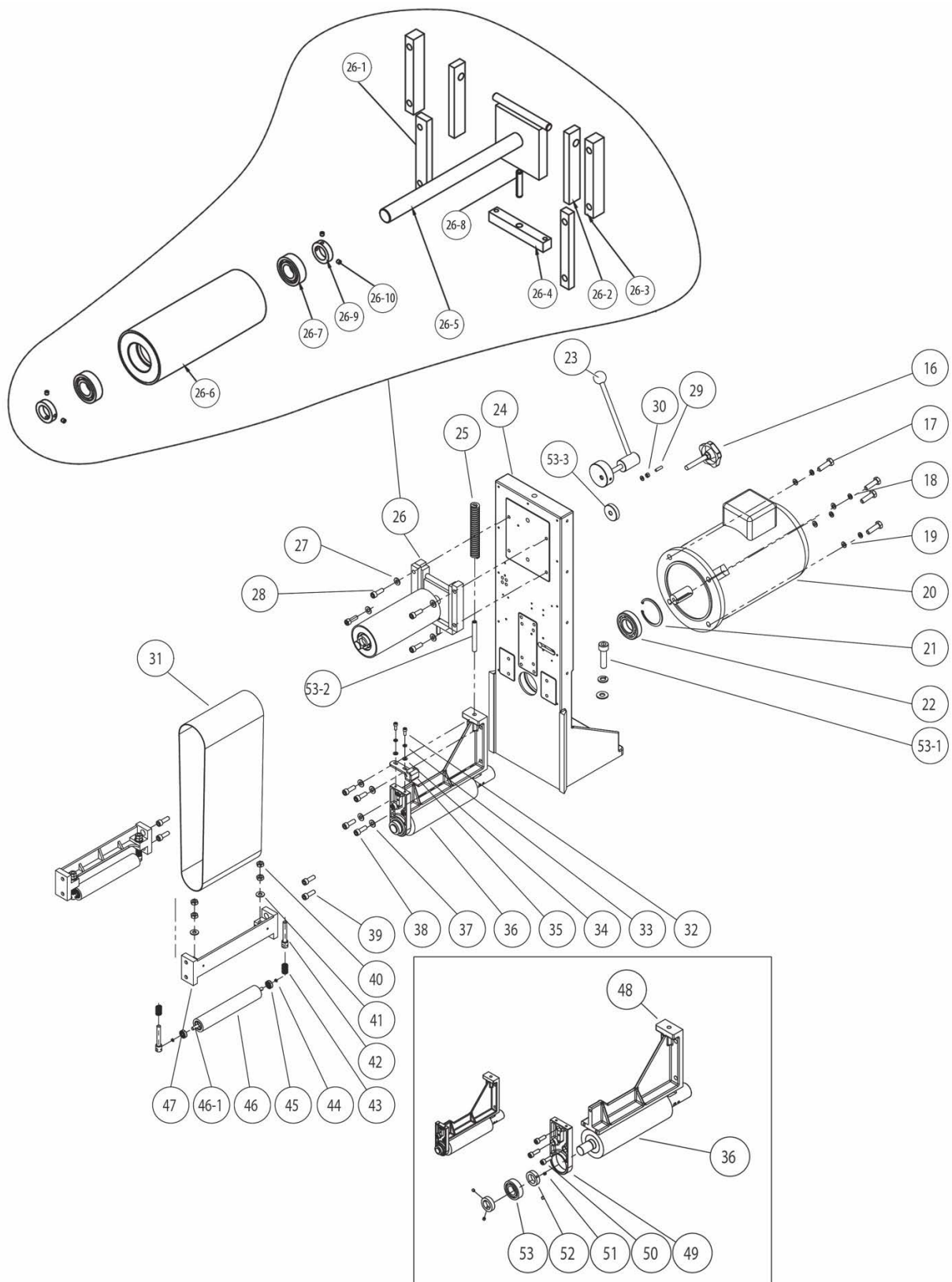
11.1.1 Major Structural Assembly – Exploded View



11.1.2 Major Structural Assembly – Parts List

Index No	Part No	Description	Size	Qty
1	J948WBSV-01A	Abrasive Belt Assembly		1
2	TS-1504041	Socket Head Cap Screw	M8x20L	4
3	TS-1550061	Flat Washer	M8	4
4	J948WBSV-04A	Control Panel W/Electrical Box Assembly		1
5	J948WBSV-05A	Conveyor Table Assembly		1
6	J948WBSV-06A	Lifting Base Assembly		1
6-1	TS-1492061	Hex Cap Screw	M12 x 60L	2
6-2	J948WBSV-06-2	Lock Washer	M12	16
6-3	J948WBSV-06-3	Flat Washer	M12	4
6-4	J948WBSV-06-4	Hose Clamp		4
7	J948WBSV-07	Air Duct Connector - 2IN		1
7-1	J948WBSV-7-1	Hose	2" x 2100L	1
8	J948WBSV-8	Air Duct Connector		1
9	J948WBSV-9	Cabinet Stand Panel (Right)		1
10	J948WBSV-10	Vacuum Motor Connector -2IN		2
10-1	J948WBSV-10-1	Hose	2" x 280L	2
10-2	J948WBSV-10-2	Hose Clamp	2"	6
11	J948WBSV-11	Vacuum Motor	3HP, 230V/ 460V, 3Ph....	1
12	J948WBSV-12	Cabinet Stand Panel(Left)		1
12-1	TS-2245122	Socket Head Button Screw	M5 x 12L	16
12-2	TS-2361051	Lock Washer	M5	16
12-3	TS-1550031	Flat Washer	M5	16
13	J948WBSV-13	Cabinet Stand		1
14	J948WBSV-14	Hex Cap Screw	M12 x 80L	4
15	TS-1540081	Hex Nut	M12	4

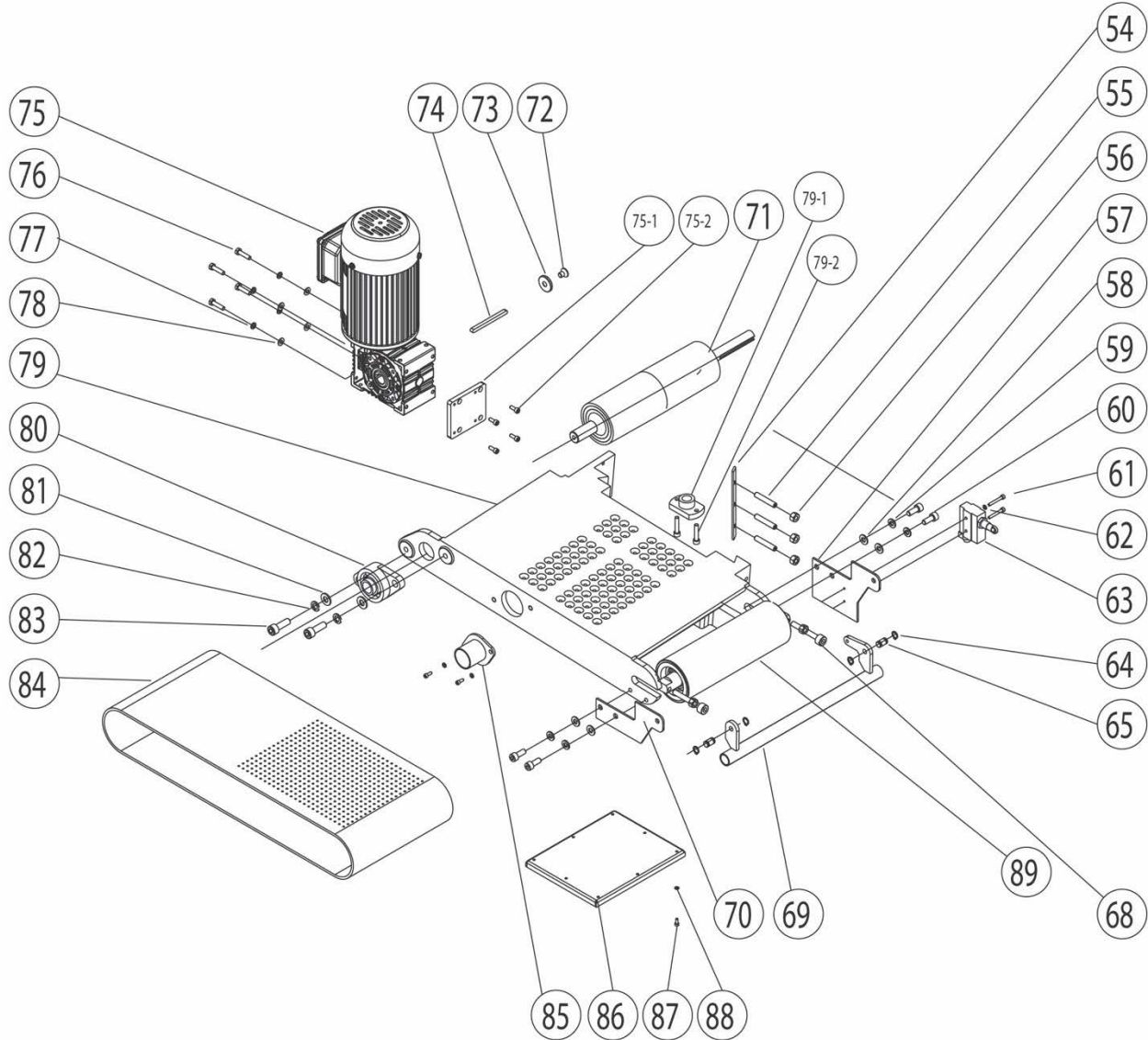
11.2.1 Abrasive Belt Assembly – Exploded View



11.2.2 Abrasive Belt Assembly – Parts List

Index No	Part No	Description	Size	Qty
16	J948WBSV-16	Threaded Knobs Assembly		4
17	TS-1492041	Hex Cap Screw	M12x40L	4
18	TS-2361121	Lock Washer	M12	4
19	TS-2360121	Flat Washer	M12	4
20	J948WBSV-20	Sanding Motor	230V/ 460V , 3Ph 60Hz 4P	1
21	J948WBSV-21	C-Shaped Buckle		1
22	BB6208ZZ	Ball Bearing	6208ZZ	1
23	J948WBSV-23	Eccentric Wheel Assembly		1
24	J948WBSV-24	Support Stand		1
25	J948WBSV-25	Spring		1
26	J948WBSV-26A	Upper Roller Assembly		1
26-1	J948WBSV-26-1	Pressure Plate		2
26-2	J948WBSV-26-2	Support Plate		2
26-3	J948WBSV-26-3	Slide Plate		2
26-4	J948WBSV-26-4	Spring Pressure Plate		1
26-5	J948WBSV-26-5	Idle Roller Shaft		1
26-6	J948WBSV-26-6	Idle Roller		1
26-7	BB6205ZZ	Ball Bearing	6205ZZ	2
26-8	J948WBSV-26-8	Spring Pin	10X50L	1
26-9	J948WBSV-26-9	Locating Ring		2
26-10	J948WBSV-26-10	Set Screw	M6x6L	4
27	TS-1550071	Flat Washer	M10	4
28	TS-1505101	Socket Head Cap Screw	M10x60L	4
29	SS835	Socket Set Screw	M8x35L	1
30	TS-1540061	Hex Nut	M8	1
31	J948WBSV-31	Sanding Belt	Oxide NO.80	1
32	SHCS1616	Socket Head Cap Screw	M16x16L	2
33	TS-2361061	Lock Washer	M6	2
34	TS-1550041	Flat Washer	M6	2
35	J948WBSV-35	Drive Roller Bracket		1
36	J948WBSV-36A	Drive Roller Assembly		1
37	TS-1550071	Flat Washer	M10	4
38	TS-1505041	Socket Head Cap Screw	M10x30L	4
39	TS-1505041	Socket Head Cap Screw	M10x30L	4
40	TS-1540071	Hex Nut	M10	4
41	TS-1550071	Flat Washer	M10	2
42	J948WBSV-42	Adjustment Bolt		2
43	J948WBSV-43	Spring		2
44	J948WBSV-44	C-Shaped Buckle		2
45	BB608ZZ	Miniature Ball Bearing		2
46	J948WBSV-46	Hold-Down Roller		2
46-1	J948WBSV-46-1	Hold-Down Roller Shaft		2
47	J948WBSV-47	Hold-Down Roller Bracket		1
48	J948WBSV-48	Drive Roller Stand		1
49	J948WBSV-49	Drive Roller Bracket		1
50	TS-1504051	Socket Head Cap Screw	M8x25L	3
51	TS-1523011	Socket Set Screw	M6x6L	4
52	J948WBSV-52	Locating Ring	6205	2
53	BB6205ZZ	Ball Bearing	6205ZZ	1
53-1	TS-1506051	Socket Head Cap Screw	M12x40L	4
53-2	SS12100	Socket Set Screw	M12x100L	1
53-3	J948WBSV-53-3	Adjust Nut		1

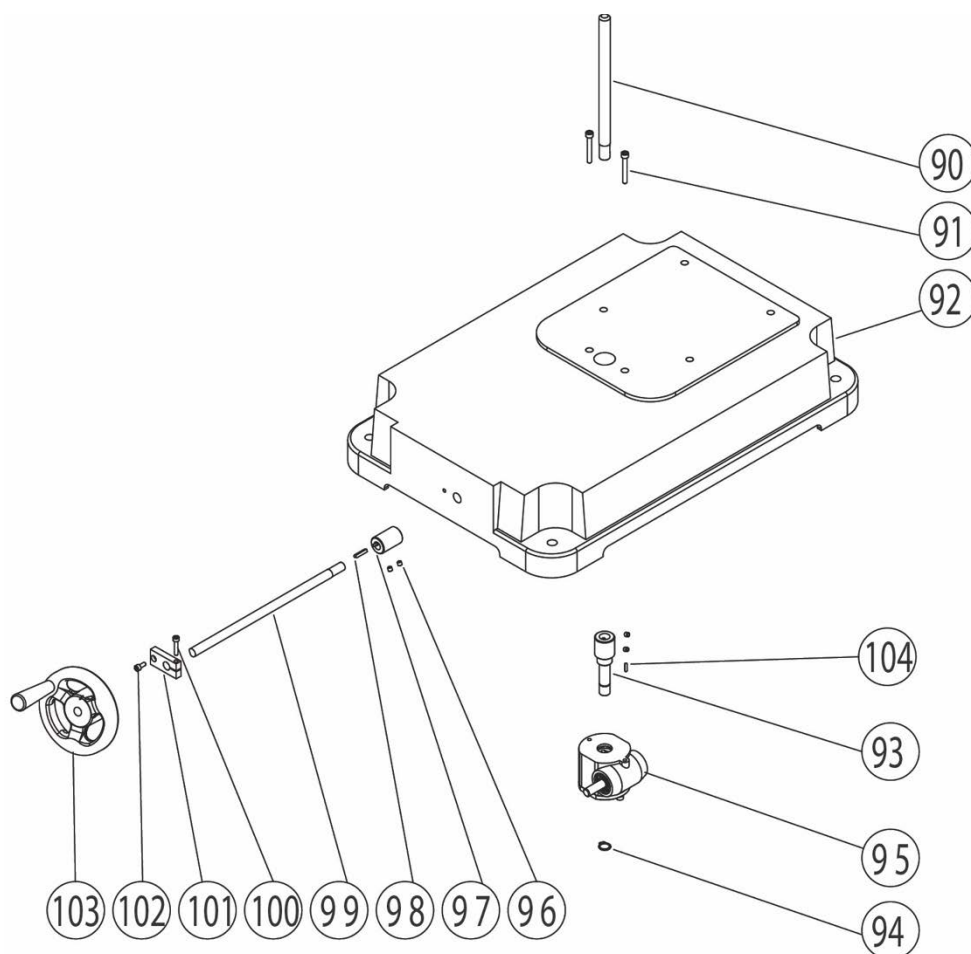
11.3.1 Conveyor Assembly – Exploded View



11.3.2 Conveyor Assembly – Parts List

Index No	Part No	Description	Size	Qty
54	J948WBSV-54	Copper Sheet		1
55	J948WBSV-55	Socket Set Screw	M8x40	3
56	TS-1540061	Hex Nut	M8	3
57	J948WBSV-57	Stop Rod Bracket		1
58	TS-1550061	Flat Washer	M8	4
59	TS-2361081	Lock Washer	M8	4
60	TS-1504041	Socket Head Cap Screw	M8x20L	4
61	TS-1501081	Socket Head Cap Screw	M4x30L	2
62	TS-2361041	Lock Washer	M4	2
63	J948WBSV-63	Micro Switch	SQ5	1
64	TS-1504041	C-Shaped Buckle		4
65	TS-2361081	Pivot Pin		2
68	TS-1490111	Socket Head Cap Screw	M8x70L	2
69	J948WBSV-69	Stop Rod		1
70	J948WBSV-70	Stop Rod Bracket		1
71	J948WBSV-71	Conveyor Roller		1
72	FHCS820	Socket Head Button Screw	M8x20L	1
73	J948WBSV-73	Washer		1
74	J948WBSV-74	Double Rounded Key		1
75	J948WBSV-75	Conveyor Motor W/ Gear Box Assembly	1/4HP 230V/460V 3Ph	1
75-1	J948WBSV-75-1	Conveyor Motor Plate		1
75-2	TS-1503041	Socket Head Cap Screw	M6x16L	4
76	TS-1503041	Socket Head Cap Screw	M6x16L	4
77	TS-2361061	Lock Washer	M6	4
78	TS-1550041	Flat Washer	M6	4
79	J948WBSV-79	Conveyor Table		1
79-1	J948WBSV-79-1	Leadscrew Flange		1
79-2	TS-1503071	Socket Head Cap Screw	M6x30	2
80	J948WBSV-80	Flanged Bearing		1
81	TS-1550071	Flat Washer	M10	2
82	TS-2361051	Lock Washer	M5	2
83	TS-1505041	Socket Head Cap Screw	M10x30L	2
84	J948WBSV-84	Conveyor Belt		1
85	J948WBSV-85	Vacuum Motor Connector -2IN		1
86	J948WBSV-86	Vacuum Chamber		1
87	TS-1502031	Socket Head Cap Screw	M5x12L	8
88	TS-2361051	Lock Washer	M5	8
89	J948WBSV-89	Front Conveyor Roller Assembly		1

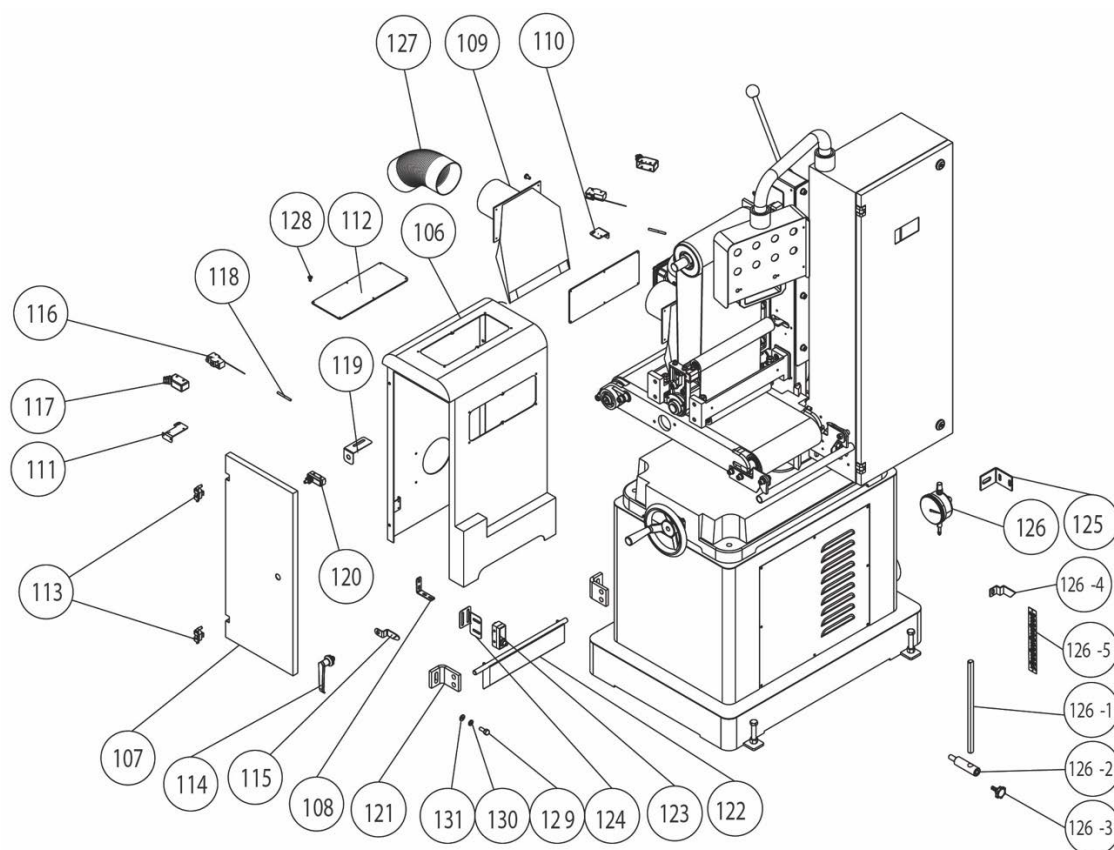
11.4.1 Lift Structure Assembly – Exploded View



11.4.2 Lift Structure Assembly – Parts List

Index No	Part No	Description	Size	Qty
90	J948WBSV-90	Lifting Screw		1
91	TS-1503101	Socket Head Cap Screw	M6x45L	2
92	J948WBSV-92	Lifting Base		1
93	J948WBSV-93	Worm Shaft		1
94	J948WBSV-94	C-Shaped Buckle		1
95	J948WBSV-95	Worm Gear-Right		1
96	TS-1523011	Socket Set Screw	M6x6L	5
97	J948WBSV-97	Coupling Sleeve		1
98	J948WBSV-98	Single Rounded Key		1
99	J948WBSV-99	Worm Shaft		1
100	TS-1502061	Socket Head Cap Screw	M5x25L	1
101	J948WBSV-101	Locking Block		1
102	TS-1502031	Socket Head Cap Screw	M5x12L	1
103	J948WBSV-103	Metal Hand Wheel	5"	1
104	KF2R5528	Double Rounded Key	5x5x28	1

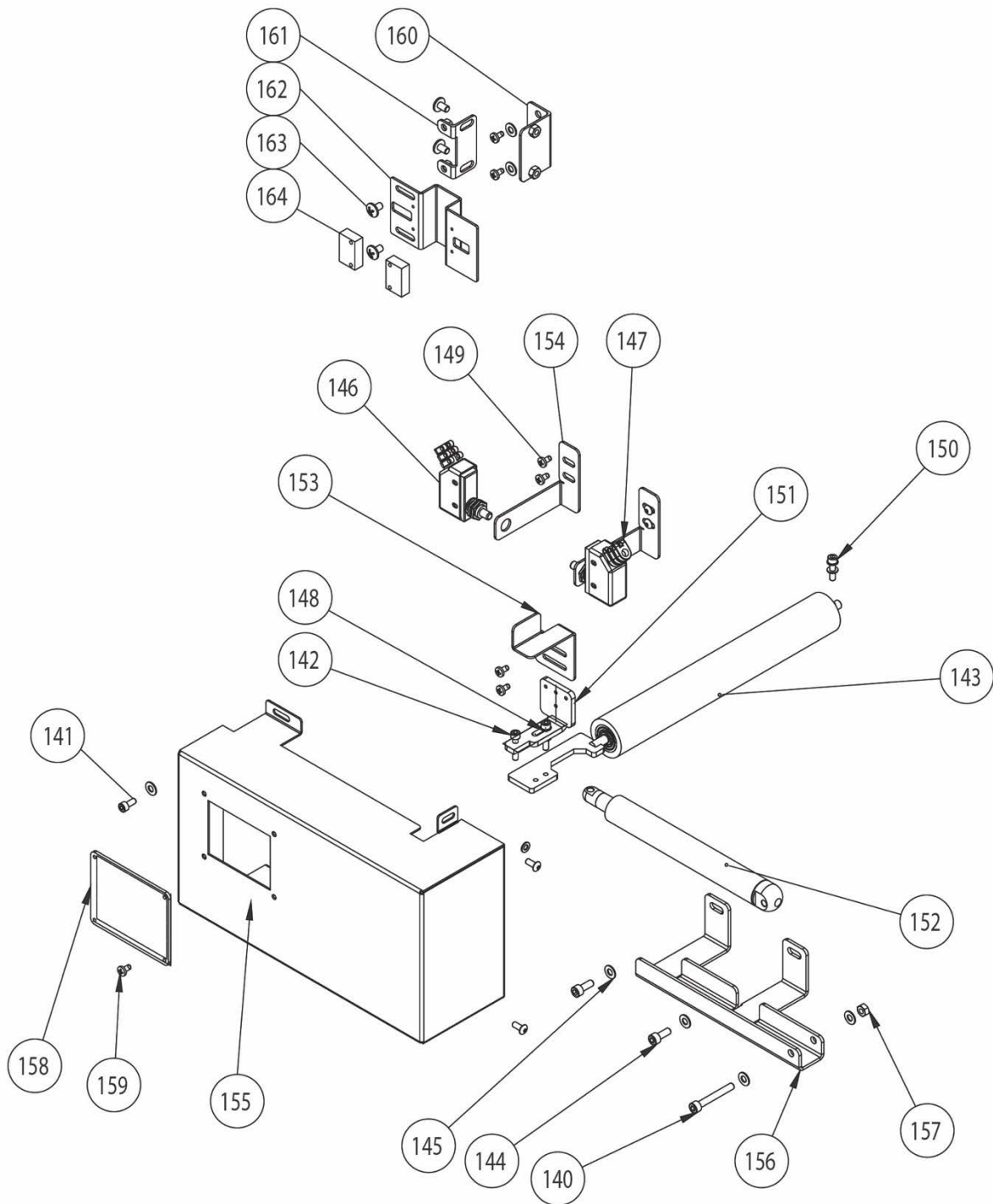
11.5.1 Belt Cover Assembly – Exploded View



11.5.2 Belt Cover Assembly – Parts List

Index No	Part No	Description	Size	Qty
106	J948WBSV-106	Sanding Belt Cover		1
107	J948WBSV-107	Sanding Belt Access Door		1
108	J948WBSV-108	Cover Bracket		1
109	J948WBSV-109	Dust Collection Nozzle		1
110	J948WBSV-110	Limit Switch Base – Internal		1
111	J948WBSV-111	Limit Switch Base – External		1
112	J948WBSV-112	Pc Viewing Winodw		2
113	J948WBSV-113	Hinge		2
114	J948WBSV-114	Door Handle		1
115	J948WBSV-115	Door Lock Plate		1
116	J948WBSV-116	Micro Switch	SQ1/SQ2	2
117	J948WBSV-117	Micro Switch Cover		2
118	J948WBSV-118	Ceramic Tube		2
119	J948WBSV-119	Microswitch Base		1
120	J948WBSV-120	Micro Switch	SQ3	1
121	J948WBSV-121	Thickness Limiting Plate Bracket		2
122	J948WBSV-122	Thickness Limiting Plate		1
123	J948WBSV-123	Micro Switch	SQ4	1
124	J948WBSV-124	Microswitch Base		1
125	J948WBSV-125	Dial Indicator Bracket		1
126	J948WBSV-126	Dial Indicator		1
126-1	J948WBSV-126-1	Scale Rod		1
126-2	J948WBSV-126-2	Scale Rod Bracket		1
126-3	J948WBSV-126-3	Plastic Knob	5/16X3/4"L	1
126-4	J948WBSV-126-4	Indicator		1
126-5	J948WBSV-126-5	Scale		1
127	J948WBSV-127	Dust Collection Elbow		1
128	TS-1501021	Pan Head Phillips Screw	M4x8L	16
129	TS-1503051	Hex Cap Screw	M6x20L	2
130	TS-2361061	Lock Washer	M6	2
131	TS-1550041	Flat Washer	M6	2

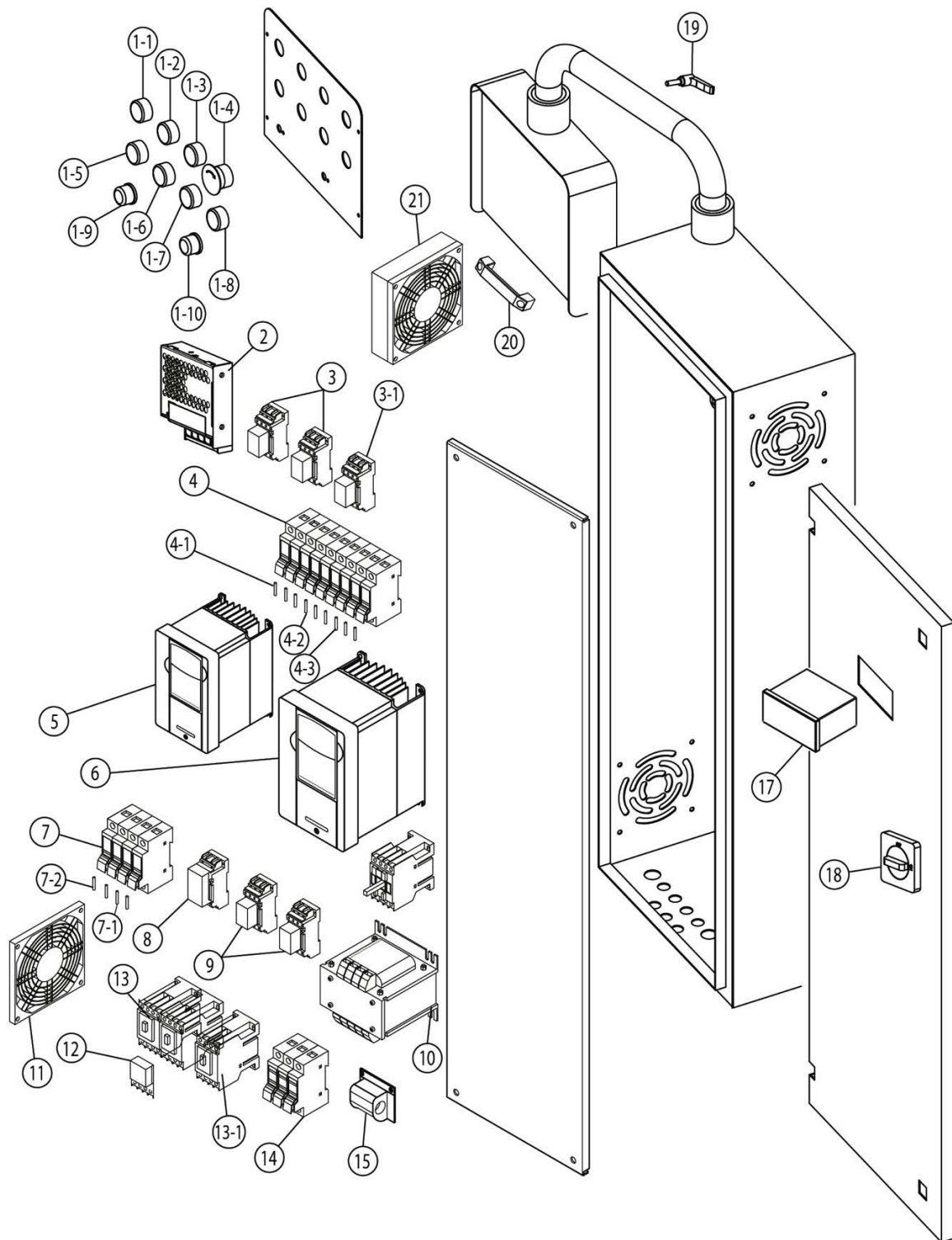
11.6.1 Auto-Tracking Structure Assembly – Exploded View



11.6.2 Auto-Tracking Structure Assembly – Parts List

Index No	Part No	Description	Size	Qty
140	TS-1503101	Socket Head Cap Screw	M6x45L	1
141	TS-1502031	Socket Head Cap Screw	M5x12L	2
142	TS-1502061	Socket Head Cap Screw	M5x25L	2
143	J948WBSV-143	Idler Roller Assembly		1
144	TS-1503041	Socket Head Cap Screw	M6x16L	6
145	TS-1550041	Flat Washer	M6	6
146	J948WBSV-146	Micro Switch	SQ6/SQ7	2
147	J948WBSV-147	Micro Switch Cover		2
148	TS-1550031	Flat Washer	M5	6
149	TS-2245122	Pan Head Phillips Screw	M5x12L	6
150	TS-1502051	Socket Head Cap Screw	M5x20L	1
151	J948WBSV-151	Link Plate		1
152	J948WBSV-152	Electric Linear Actuator		1
153	J948WBSV-153	Touch Plate		1
154	J948WBSV-154	Microswitch Bracket		2
155	J948WBSV-155	Electric Linear Actuator Cover		1
156	J948WBSV-156	Electric Linear Actuator Bracket		1
157	TS-1540041	Hex Nut	M6	1
158	J948WBSV-158	Pc Viewing Window		1
159	TS-2244102	Pan Head Phillips Screw	M4x8L	6
160	J948WBSV-160	Right -Sensor Bracket		1
161	J948WBSV-161	Left -Sensor Bracket		1
162	J948WBSV-162	Front Sensor Bracket		1
163	TS-1503021	Pan Head Phillips Screw	M6x10L	6
164	J948WBSV-164	Sensor Set		2
	JET-165	Jet Logo (Not Shown)	165x68mm	1

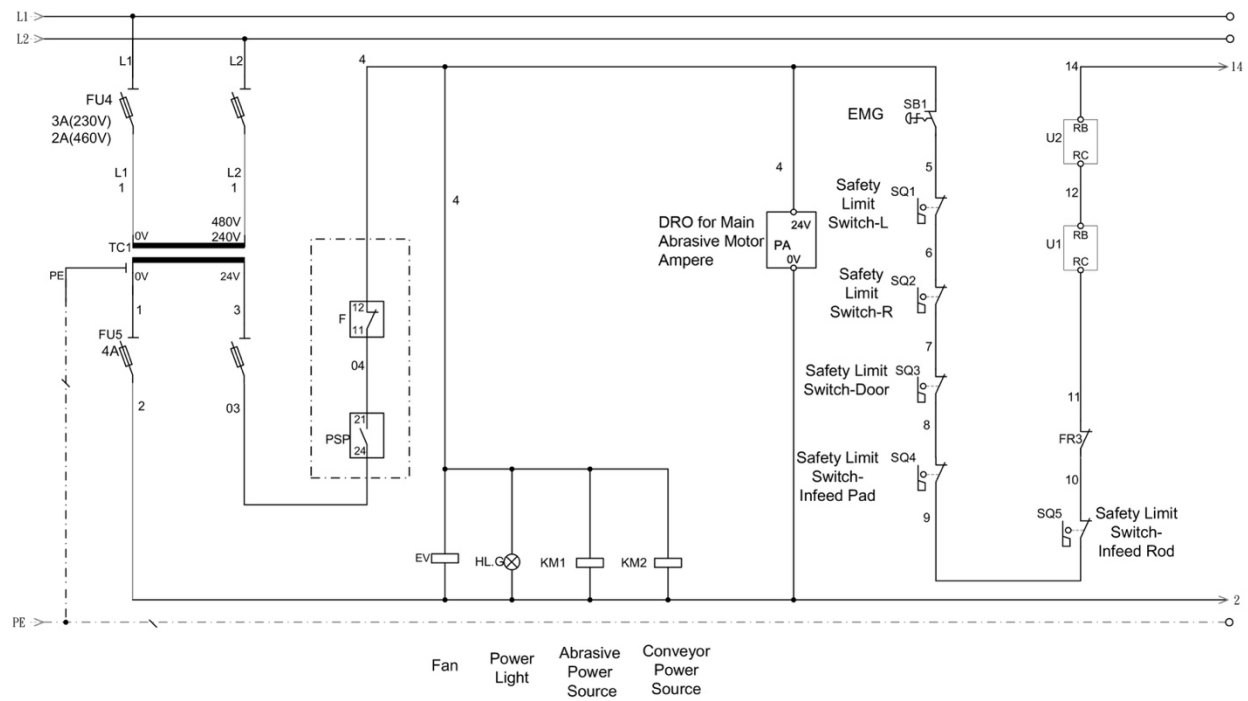
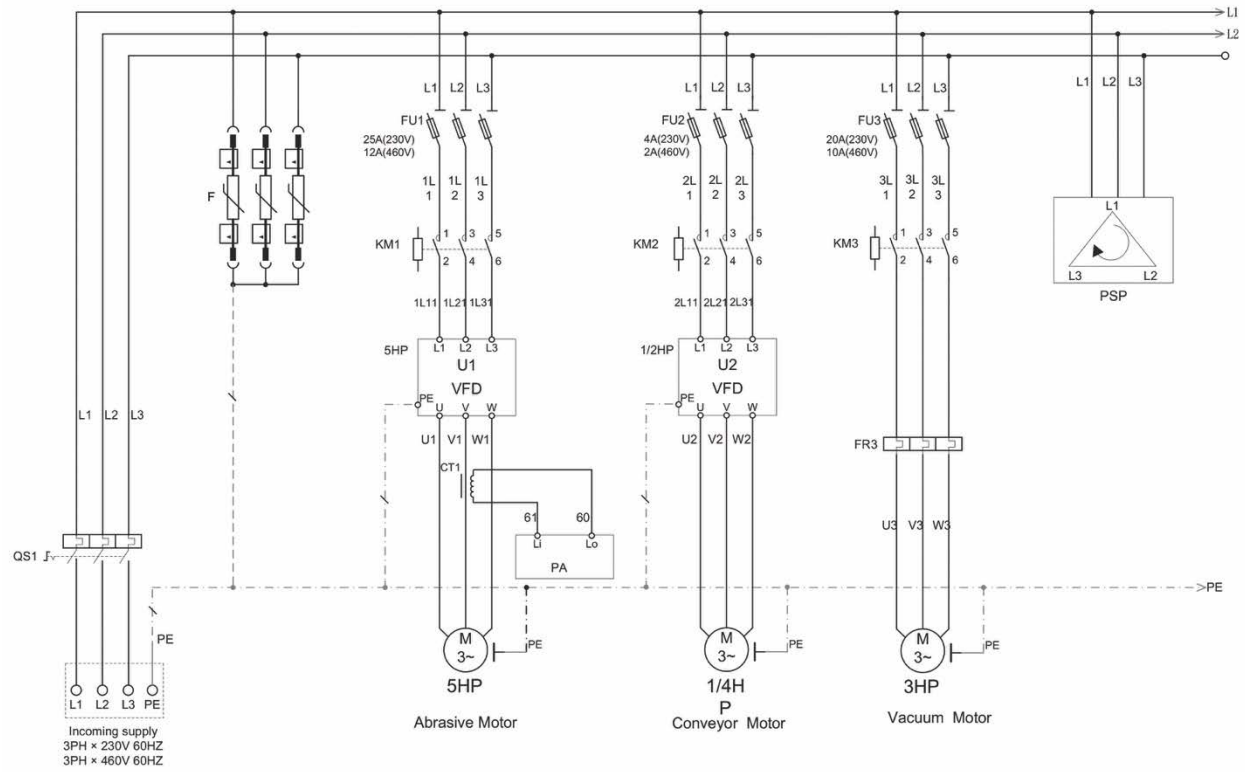
11.7.1 Electrical Parts – Exploded View

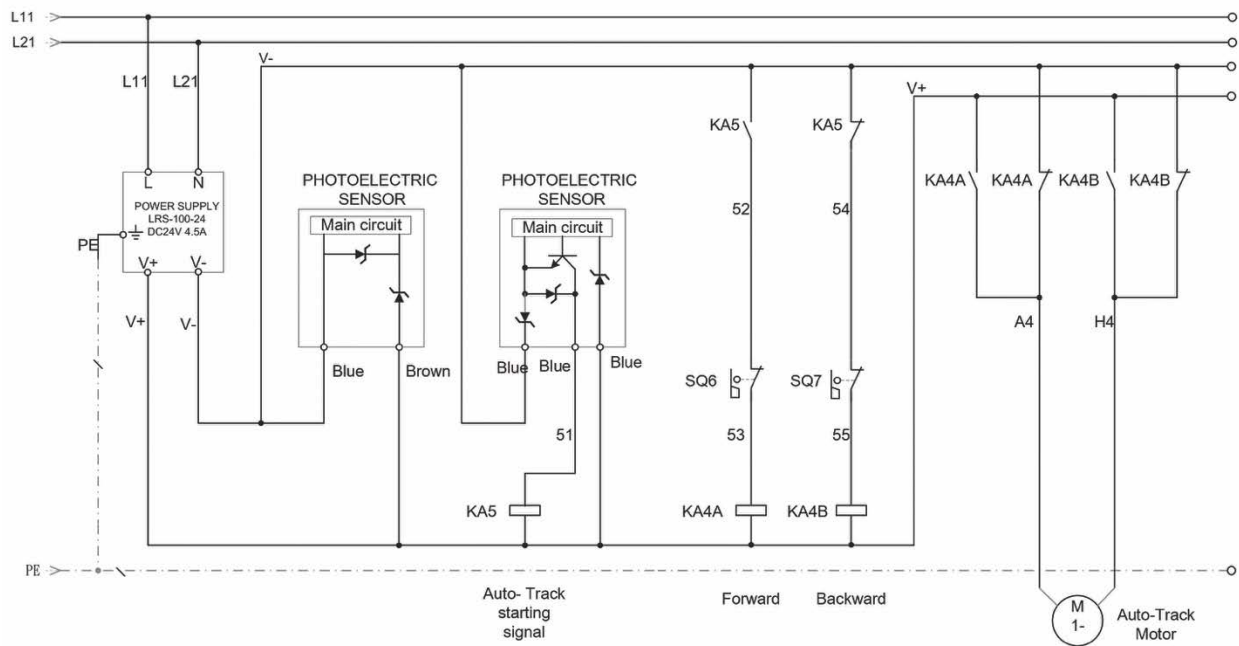
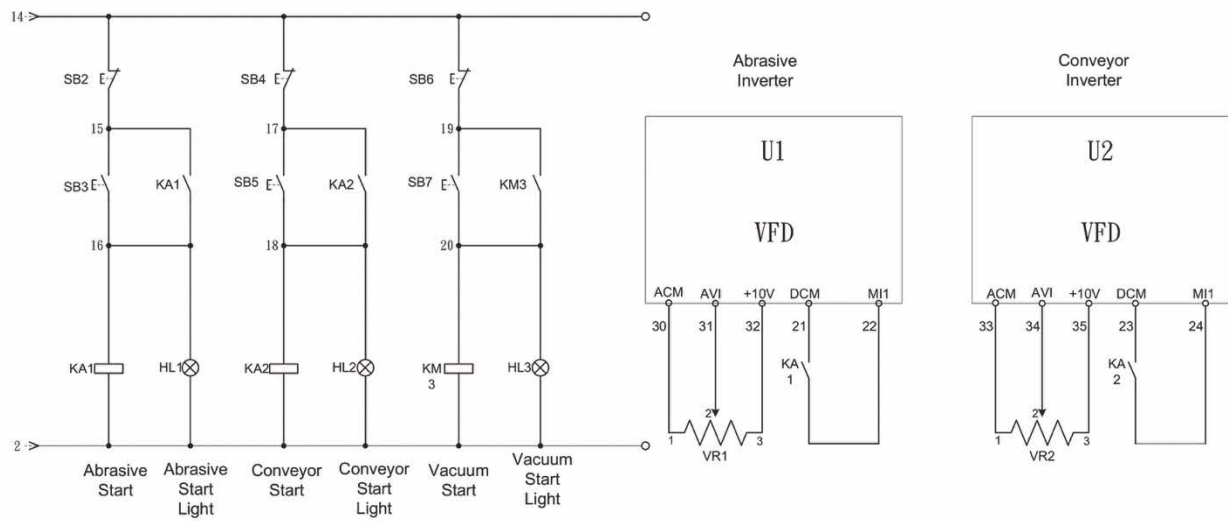


11.7.2 Electrical Parts – Parts List

Index No	Part No	Description	Size	Qty
1-1	J948WBSV-1-1	Conveyor Start Switch (SB5)	R2PIF 1A AC24V	1
1-2	J948WBSV-1-2	Vacuum Start Switch (SB7)	R2PIF 1A AC24V	1
1-3	J948WBSV-ABSS	Abrasive Belt Start Switch (SB3)	R2PIF 1A AC24V	1
1-4	J948WBSV-1-4	Emergency Stop Switch (SB1)	KB2-ES442 1B	1
1-5	J948WBSV-1-5	Conveyor Stop Switch (SB4)	R2PNH 1B	1
1-6	J948WBSV-1-6	Vacuum Stop Switch (SB6)	R2PNH 1B	1
1-7	J948WBSV-1-7	Abrasive Belt Stop Switch (SB2)	R2PNH 1B	1
1-8	J948WBSV-1-8	Power Light	KE-22DSG 24V	1
1-9	J948WBSV-1-9	Conveyor Feed VR Switch	RV24Y-20S-2K B202 / RN-99D	1
1-10	J948WBSV-1-10	Abrasive Belt Speed VR Switch	RV24Y-20S-2K B202 / RN-99D	1
2	J948WBSV-2/230	Power Supply Unit	WDR-120-24,180 ~ 550VAC, DC24V, 5A	1
	J948WBSV-2/460	Power Supply Unit	WDR-120-24,180 ~ 550VAC, DC24V, 5A	1
3	J948WBSV-3	Relay (KA4A/ KA4B)	IDEC,RJ1S-CL-DC24V,12A 250VAC, 12A, 30VDC	2
	J948WBSV-KA4ARS	Relay Seat (Not Show)		2
3-1	J948WBSV-3-1	Relay (KA5)	IDEC/RN2S-HNL-DC24V / 5A 250VAC ,5A, 30VDC	1
	J948WBSV-KA5RS	Relay Seat (Not Show)		1
4	J948WBSV-4	Fuse Seat	DF 103 3P	9
4-1	J948WBSV-4-1	Fuse (FU3)	FNQ-R 20A (230V)	3
4-1	J948WBSV-4-1/460	Fuse (FU3)	FNQ-R 10A (460V)	3
4-2	J948WBSV-4-2	Fuse (FU2)	KTK-R 4A (230V)	3
4-2	J948WBSV-4-2/460	Fuse (FU2)	KTK-R 2A (460V)	3
4-3	J948WBSV-4-3	Fuse (FU1)	KTK-R 25A (230V)	3
4-3	J948WBSV-4-3/460	Fuse (FU1)	KTK-R 12A (460V)	3
5	J948WBSV-5	Inverter (U2)	230V DELTA VFD2A8MS23A- NSAA3PH/230V 0.4KW/1/2HP	1
	J948WBSV-5/460	Inverter (U2)	DELTA VFD VFD1A5MS43A- NSAA3PH/460V 0.4KW/1/2HP	1
6	J948WBSV-6	Inverter (U1)	DELTA VFD17AMS23A-NSAA 3PH 230V 3.7KW 5HP	1
	J948WBSV-6/460	Inverter (U1)	DELTA VFD VFD9A0MS43A- NSAA 3PH 460V 3.7KW 5HP	1
7	J948WBSV-7	Fuse Seat	DF 102 2P	4
7-1	J948WBSV-7-1/230	Fuse (FU4)	KTK-R 3A(230V)	2
7-1	J948WBSV-7-1/460	Fuse (FU4)	KTK-R 2A (460V)	2
7-2	J948WBSV-7-2	Fuse (FU5)	KTK-R 4A (230V)	2
7-2	J948WBSV-7-2/460	Fuse (FU5)	KTK-R 4A(460V)	2
8	J948WBSV-PMR	Phase Monitoring Relay(PSP)	RM22TG20 183-528VAC (230V/460V)	1
9	J948WBSV-RY	Relay	IDEC/RN2S-HNL-AC24V / 5A 250VAC ,5A, 30VDC	2
	J948WBSV-KA2RS	Relay Seat (Not Show)		2
10	J948WBSV-TR	Transformer (TC1)	240/480V , 100VA 24VA	1
11	J948WBSV-FN	Filter Net	4' AC24V	1
12	J948WBSV-FR3/230	Overload Switch (FR3)	TECO rate 9-12.5A set 12A (RHU-10K1/9~12.5A) 230V	1
	J948WBSV-FR3/460	Overload Switch (FR3)	TECO rate 4.5-6.3A set 6A (RHU-10K1/4.5~6.3A) 460V	1
13	J948WBSV-KM2/3	Magnetic Contactor(KM2/KM3)	CU-11 (KM2/ KM3)	2
13-1	J948WBSV-13-1	Magnetic Contactor(KM1)	CU-16 (KM1)	1
14	J948WBSV-SP230	Surge Protector (F)	MFVD20275-3P(230V)	3
	J948WBSV-SP460	Surge Protector (F)	MFVD20550-3P(460V)	3
15	J948WBSV-15	Current Transformer	Current ratio 20A/5T, 50/60Hz	1
17	J948WBSV-17	Dro For Main Motor Ampere	FA-50AA040D 24VAC	1
18	J948WBSV-18	Rotary Switch For Door(QS1)	NHD NDS-403-G5DL2 690V 40 A (230/460V)	1
19	J948WBSV-19	Level Handle		1
20	J948WBSV-HAL	Handle		1
21	J948WBSV-CF	Cooling Fan	4"	1

12.1 Electrical Schematics – 230V





13.0 Warranty and Service

JET warrants every product it sells against manufacturers' defects. If one of our tools needs service or repair, please contact Technical Service by calling 1-800-274-6846, 8AM to 5PM CST, Monday through Friday.

Warranty Period

The general warranty lasts for the time period specified in the literature included with your product or on the official JET branded website.

- JET products carry a limited warranty which varies in duration based upon the product. (See chart below)
- Accessories carry a limited warranty of one year from the date of receipt.
- Consumable items are defined as expendable parts or accessories expected to become inoperable within a reasonable amount of use and are covered by a 90-day limited warranty against manufacturer's defects.

Who is Covered

This warranty covers only the initial purchaser of the product from the date of delivery.

What is Covered

This warranty covers any defects in workmanship or materials subject to the limitations stated below. This warranty does not cover failures due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair, alterations, or lack of maintenance. JET woodworking machinery is designed to be used with Wood. Use of these machines in the processing of metal, plastics, or other materials outside recommended guidelines may void the warranty. The exceptions are acrylics and other natural items that are made specifically for wood turning.

Warranty Limitations

Woodworking products with a Five-Year Warranty that are used for commercial or industrial purposes default to a Two-Year Warranty. Please contact Technical Service at 1-800-274-6846 for further clarification.

How to Get Technical Support

Please contact Technical Service by calling 1-800-274-6846. **Please note that you will be asked to provide proof of initial purchase when calling.** If a product requires further inspection, the Technical Service representative will explain and assist with any additional action needed. JET has Authorized Service Centers located throughout the United States. For the name of an Authorized Service Center in your area call 1-800-274-6846 or use the Service Center Locator on the JET website.

More Information

JET is constantly adding new products. For complete, up-to-date product information, check with your local distributor or visit the JET website.

How State Law Applies

This warranty gives you specific legal rights, subject to applicable state law.

Limitations on This Warranty

JET LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

JET SHALL IN NO EVENT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL, CONTINGENT, SPECIAL, OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

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Product Listing with Warranty Period

90 Days – Parts; Consumable items
1 Year – Motors; Machine Accessories
2 Year – Metalworking Machinery; Electric Hoists, Electric Hoist Accessories; Woodworking Machinery used for industrial or commercial purposes
5 Year – Woodworking Machinery
Limited Lifetime – JET Parallel clamps; VOLT Series Electric Hoists; Manual Hoists; Manual Hoist Accessories; Shop Tools; Warehouse & Dock products; Hand Tools; Air Tools

NOTE: JET is a division of JPW Industries, Inc. References in this document to JET also apply to JPW Industries, Inc., or any of its successors in interest to the JET brand.

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