Open End Wide Belt Sander

Model 5315

Owner's Manual

For Machines with Serial Numbers Starting at 259171

C US
175370

Oliver Machinery
1-800-559-5065
921 Thomas Ave SW,
Renton, WA 98057

info@olivermachinery.net
WWW.OLIVERMACHINERY.NET

Stock Number: 5315.001
Manual Version: 1.0.3

READ AND UNDERSTAND ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO ASSEMBLE OR OPERATE THIS MACHINE.

FOLLOW ALL INSTRUCTIONS AND OBSERVE SAFE OPERATING PRACTICES AT ALL TIMES.

THE OWNER OF THIS MACHINE IS SOLELY RESPONSIBLE FOR THE SAFETY OF ALL PERSONS WHO OPERATE OR WORK NEAR THE MACHINE. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO:

- **PROPER ASSEMBLY, OPERATION, INSPECTION, MAINTENANCE, AND RELOCATION OF THE MACHINE.**
- **ENSURING OPERATORS ARE PROPERLY TRAINED IN THE SAFE OPERATION OF THE MACHINE.**
- **ENSURING THIS MANUAL IS AVAILABLE TO OPERATORS AT ALL TIMES.**
- **AUTHORIZING AND SUPERVISING MACHINE USE.**
- **ENSURING THE PROPER USE OF ALL SAFETY GUARDS, PROTECTION DEVICES, AND ANY OTHER PERSONAL PROTECTIVE EQUIPMENT.**

OLIVER MACHINERY DISCLAIMS ANY LIABILITY FOR MACHINES THAT HAVE BEEN ALTERED, MODIFIED, OR ABUSED.

OLIVER MACHINERY RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME, WITHOUT PRIOR NOTICE, TO PARTS, FITTINGS, OR ACCESSORY EQUIPMENT AS DEEMED NECESSARY FOR PRODUCT IMPROVEMENT OR OTHER REASONS.

***** SAVE THIS MANUAL FOR FUTURE REFERENCE. *****

PROP 65 NOTICE

WARNING: Drilling, sawing, sanding, or machining wood and wood products can expose you to wood dust and other chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Examples of these chemicals include:

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

Avoid inhaling wood dust and other harmful chemicals. Use a dust mask and other appropriate personal protective equipment.

For more information go to http://www.P65Warnings.ca.gov/wood

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Introduction

Thank you for choosing Oliver Machinery. This manual contains important information on the safe setup, operation, and maintenance of this machine. Please read this manual carefully and ensure that you fully understand the instructions before operating the machine.

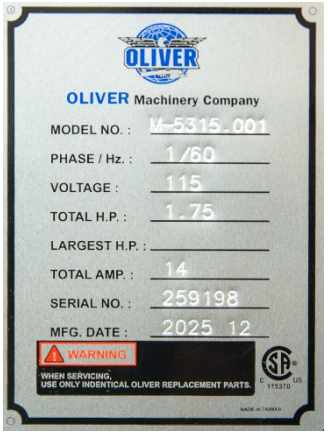
This manual should be considered a permanent part of the machine and should remain with the machine if it is resold or relocated.

While this manual may provide tips for improving the results of your work, it is not intended as a substitute for formal woodworking training. If you are unsure how to safely perform a particular woodworking operation, consult qualified and knowledgeable sources before proceeding.

Every effort has been made to ensure that this manual is accurate and up to date. The instructions, specifications, drawings, and photographs in this manual should correspond with the machine delivered. If you notice any discrepancies or find any part of this manual unclear, please check our website for the latest version:

www.olivermachinery.net/manuals

You may also contact our technical support department for assistance:



1-800-559-5065

Before calling, please record the **manufacturing date** and **serial number** of your machine. This information can be found on the nameplate located on the back of the machine. Providing this information will help us assist you more efficiently and determine whether an updated manual is available for your machine.

We welcome your feedback regarding this manual. If you have suggestions for improvement, please contact us at the number above or email:

info@olivermachinery.net

Your feedback helps us continue improving our products and documentation.

Specifications

Quick View

Model	5315 Open End Wide Belt Sander
Stock Number	5315.001
Power Requirement	115V, 1Ph, 60Hz
Motor	TEFC 1.75HP, 115V, 1Ph
Sanding Belt Size	16” x 48”
Feed Rate	0 – 10 FPM
Dimensions	38“(W) x 39-3/4”(D) x 33-1/2”(H)
Footprint	30”(W) x 17-1/4”(D)
Fully Assembled Weight	322 lbs.
Warranty	1 Year (Motor and electronics) 2 Years (All other parts)

Shipment Info

Packaging	Crate on Pallet
Content	Sander with Included Accessories
Dimensions	
Sander	43”(L) x 32”(W) x 43-1/2”(H)
Tool Stand (Optional)	42”(L) x 32”(W) x 34”(H)
Weight	
Sander	429 lbs.
Tool Stand (Optional)	163 lbs.
Approx. Assembly Time	30-60 Minutes
Must Ship Upright	YES
Stackable	NO

Product Dimensions

Fully Assembled Dimensions	
Sander without Extension Table	38“(W) x 24-1/2”(D) x 33-1/2”(H)
Sander with Extension Table	38“(W) x 39-3/4”(D) x 33-1/2”(H)
Sander with Optional Stand	39-1/2”(W) x 39-3/4”(D) x 57”(H)
Footprint	
Sander Only	30”(W) x 17-1/4”(D)
Sander with Optional Stand	39-1/2”(W) x 22” (D)
Fully Assembled Weight	
Sander Only	322 lbs.
Sander with Optional Stand	434 lbs.

Electricals

Power Requirement	115V, 1Ph, 60Hz
Full Load Current Rating	14A
Required Circuit Size	20A
Power Switch Types	
Main Power Switch	Rocker Switch with Lockout Key
Control Panel	Press Button Switch with E-Stop Button
Connection Type	NEMA 5-15 Plug with 8’ 14AWG Cord

Capacity

Open End	Yes
Max. Board Width (Single/Double Pass)	15” / 30”
Acceptable Board Thickness Range	1/32” - 4”
Min. Board Length	8”

Sander

Sanding Belt Size	16” x 48”
Sanding Belt Speed	2800FPM
Feed Rate	0 – 10 FPM
Sanding Belt Oscillation Stroke Width	1”
Oscillations Per Minute	20
Sanding Belt Drum Material	Aluminum
Drum Dimensions	
Upper Drum	5” (O.D) x 17-3/8”(L)
Lower Drum	6” (O.D) x 17-3/8” (L)

Table

Main Table Material	Precision Ground Cast Iron
Extension Table Material	Steel
Table Dimensions	
With Extension Tables	15-3/4“(W) x 39-3/4”(D)
Without Extension Tables	15-3/4“(W) x 23”(D)

Measurements

Measurement Units	Inch/mm
Primary Measurement Device	Digital readout
Digital Readout Resolution	0.001"/0.05mm
Digital Readout Accuracy	+/- 0.0005"/0.025mm
Additional Measurement Devices	Manual thickness scale

Motor

Main Motor Type	TEFC
Horsepower	1.75HP
Power Requirement	115V, 1Ph, 60Hz
Full Load Current Rating	14A
Speed	1720 RPM
Power Transfer Mechanism	Direct Drive
Bearing Type	Sealed & Permanently Lubricated
Conveyor Motor Type	DC Motor
Horsepower	1/30HP
Power Requirement	100V DC
Full Load Current Rating	0.45A
Speed	0 – 47 RPM
Power Transfer Mechanism	Direct Drive
Bearing Type	Sealed & Permanently Lubricated
Oscillating Motor Type	DC Motor
Horsepower	1/30HP
Power Requirement	100V DC
Full Load Current Rating	0.45A
Speed	47 RPM
Power Transfer Mechanism	Direct Drive
Bearing Type	Sealed & Permanently Lubricated

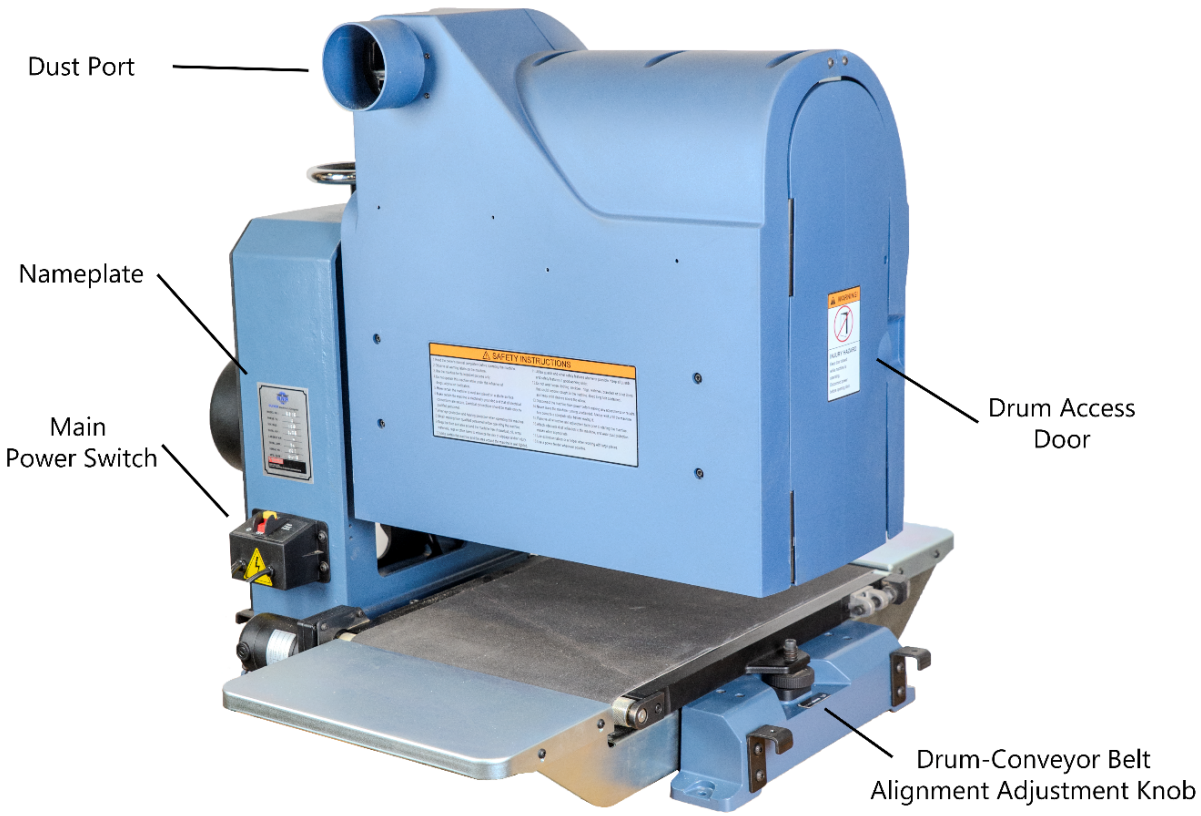
Safety

Overload Protection	Oliver SST (Safe Sanding Technology)
Number of Dust Ports	1
Dust Port Size	4”
Minimum CFM Required	550 CFM
Sound Rating @ 2’ distance	93 dB

Others

Serial Number Location	On the back of the sander.
Certification	CSA 175370
Country of Origin	Taiwan

Identification


Dust Port
Nameplate
Main
Power Switch
Drum Access
Door
Drum-Conveyor Belt
Alignment Adjustment Knob

Safety

Oliver Machinery has made every effort to design and manufacture a safe, reliable, and easy-to-use machine. However, safety ultimately depends on the individual machine operator. **Before operating this machine, become familiar with the safety labels and guidelines contained in this manual.**

DANGER	Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.
WARNING	Indicates a hazardous situation which, if not avoided, **COULD** result in death or serious injury.
CAUTION	Indicates a hazardous situation which, if not avoided, **MAY** result in minor or moderate injury.
IMPORTANT	Indicates information related to the proper operation of the machine or prevention of machine damage.

General Safety Guidelines

1. **FAMILIARIZE YOURSELF WITH THE MACHINE**
   Read and understand all safety instructions in this manual. Know the machine's limitations and hazards. Do not operate or service this machine unless you have received proper training.

2. **ELECTRICAL GROUNDING**
   Proper grounding reduces the risk of electrical shock or fire. Ensure the machine frame is properly grounded and that a grounding conductor is included in the electrical supply. If a cord and plug are used, ensure the grounding plug is connected to a properly grounded outlet. Follow all applicable local electrical codes.

3. **DISCONNECT POWER**
   Disconnect the machine from the power source before performing service, maintenance, adjustments, or changing cutters. Machines undergoing maintenance should be properly tagged to prevent accidental startup.

4. **EYE PROTECTION**
   Always wear approved eye protection such as a face shield, safety goggles, or safety glasses that comply with ANSI Z87.1 or CSA Z94.3 standards. Regular eyeglasses are not safety glasses.

5. **HEARING PROTECTION**
   Use hearing protection when noise levels exceed those permitted under OSHA Regulation 29 CFR 1910.95. When in doubt, wear hearing protection.

6. **OTHER PERSONAL PROTECTION MEASURES**
   Before operating the machine, remove ties, rings, watches, and other jewelry. Roll sleeves above the elbows. Remove loose clothing and secure long hair. Wear protective footwear. Do not wear gloves unless specifically instructed for a particular operation.

7. **GUARDS**
   Keep all machine guards in place and properly adjusted during operation. If guards are removed for maintenance, **DO NOT OPERATE** the machine until they are reinstalled. Check clearance between guards and cutters before starting the machine.

8. **WORKPLACE SAFETY**
   Keep the floor and work area around the machine clean and free of debris. Scrap material, sawdust, oil, and other liquids increase the risk of slipping or tripping. Ensure the workspace is well-lit and properly ventilated. Use dust collection or exhaust systems to minimize airborne dust. Use anti-skid floor strips on the area where the operator normally stands and mark off the machine work area. Provide adequate workspace around the machine.

9. **ACCESS CONTROL**
   Only trained and authorized personnel should operate this machine. Use a lockable or childproof power switch where applicable.

10. **STAY ALERT**
    Never operate machinery while under the influence of drugs or alcohol, or when fatigued or impaired.

11. **NEVER STAND ON MACHINE**
    Standing on the machine may result in tipping, falls, or accidental contact with moving parts.

12. **REPLACEMENT PARTS**
    Use only genuine Oliver Machinery replacement parts and accessories recommended for this machine. Parts from other manufacturers may create safety hazards and WILL void the factory warranty and other guarantees.

13. **PROPER USE**
    Use this machine only for its intended purpose. If used for other purposes, Oliver Machinery disclaims any real or implied warranty and holds itself harmless for any injury or damage which may result from that use.

14. **ADDITIONAL SAFETY INFORMATION**

    For further information on woodworking safety, consult the following resources:

    - National Safety Council – *Accident Prevention Manual for Business and Industry*
      https://shop.nsc.org/apm-admin-program-14ed

    - ANSI O1.1 – Woodworking Machinery Safety Requirements
      https://webstore.ansi.org/standards/wmma/ansio12013r2023

    - OSHA 29 CFR 1910.213 – Woodworking Machinery Requirements
      https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.213

Safety Guidelines Specific to Open End Wide Belt Sander

Before Work Begins:

1. **Inspect Belts**
   Inspect the sanding belt and conveyor belt for signs of damage or excessive wear. Replace belts that are damaged, overstretched, or severely worn.
2. **Check Belt Tension**
   Ensure the sanding belt and conveyor belt are properly tensioned before operating the machine.
3. **Inspect the Workpiece and Avoid the Following:**
   - Workpieces with loose components or embedded objects.
   - Workpieces that contain hazardous chemicals or excessive moisture.
   - Workpieces that exceed the allowable thickness for this machine.
   - Workpieces that are shorter than the minimum length specified for this machine.
4. **Set Sanding Height Properly**
   Adjust the sanding head so the infeed roller presses the workpiece firmly against the conveyor belt while the sanding belt lightly contacts the workpiece.

When Sanding:

1. **Support the Workpiece**
   Provide proper support for long or wide workpieces using additional tables or roller stands.
2. **Keep Hands Clear**
   Keep hands away from the sanding belt and all moving parts.
3. **Use Conveyor Feed Only**
   Allow the conveyor belt to feed the workpiece through the machine. Do not push or force the workpiece by hand.
4. **Avoid Sanding Cupped Workpieces**
   Cupped or warped workpieces may cause instability, kickback, or sanding belt damage. When necessary, and only if the cupping is minor, feed the workpiece with the cupped side facing downward so it rests more securely on the conveyor belt.
5. **If the Workpiece is Jammed**
   Stop the sander and wait for the machine to go to a complete stop, then raise the carriage to remove the workpiece.

After Operation

1. **Stop the Machine**
   Stop the machine whenever the operator leaves the work area.
2. **Wait for Complete Stop**
   Wait until all motors and moving parts have come to a complete stop before turning off the main power switch or disconnecting the machine from power.
3. **Clean the Work Area**
   Clean the machine and surrounding area before leaving the workspace.

Electricals

WARNING

Faulty electrical work can cause electric shock, electrocution, or fire.

All electrical work must be performed by a licensed electrician and must comply with all applicable local electrical codes and regulations. Failure to comply with these requirements will void the machine warranty.

Electrical Specifications and Minimum Circuit Size Requirements

Machine Model	**5315 Open End Wide Belt Sander**
Stock Number	5315.001
Voltage	115V
Phase	1Ph
Full Load Current Rating	14A
Minimum Circuit Size Required	20A
Plug Type	NEMA 5-15
Cord Length	8’

This machine is designed to operate on a 115V single-phase power supply. The machine must be connected to a dedicated 20A circuit that supplies power to only one 5315 Open End Wide Belt Sander.

If multiple machines share the same electrical circuit, consult a licensed electrician to ensure the circuit is properly sized for safe operation.

If an existing circuit does not meet the minimum circuit size requirement, a new circuit must be installed before operating the machine.

Grounding

WARNING

Improper grounding can cause electric shock, fire, or equipment damage.

This machine must be connected to a properly installed grounding conductor. Grounding provides a path of least resistance for electrical current in the event of a malfunction or electrical fault, reducing the risk of electric shock.

All grounding connections must comply with local electrical codes and must be verified before operating the machine.

Do not operate the machine if a proper grounding connection is not available. Have a licensed electrician install a properly grounded outlet if necessary.

Where permitted by local electrical codes, a GFCI-protected circuit may be used for additional protection.

Indoor Use Only

This machine is designed for indoor use only.

Operating the machine outdoors or in damp environments increases exposure to moisture, which can significantly increase the risk of electric shock or equipment damage.

Always operate the machine in a dry, well-ventilated indoor environment.

Electrical Wiring

This machine is pre-wired for 115V operation and is supplied with a power cord and a NEMA 5-15 plug.

Do not modify the plug provided with the machine. If the plug does not fit the available outlet, have a proper outlet installed by a licensed electrician.

Avoid using extension cords whenever possible. Extension cords may reduce motor performance and increase the risk of overheating.

If an extension cord must be used:

- Use a heavy-duty extension cord rated for 90°C (194°F) or higher.
- Use the shortest cord length possible.
- Ensure the cord is properly rated for the machine's electrical load.

Minimum cord size required based on amperage draw and length of the cord:

Cord Length	< 25 feet	< 50 feet	< 75 feet	< 100 feet	> 100 feet
Cord Size (AWG)	12	12	10	10	Not Recommended

WARNING **Use electrical wiring and extension cords that meet or exceed the power requirements of this machine. Undersized wiring can overheat and may cause fire, equipment damage, or electrical failure.**

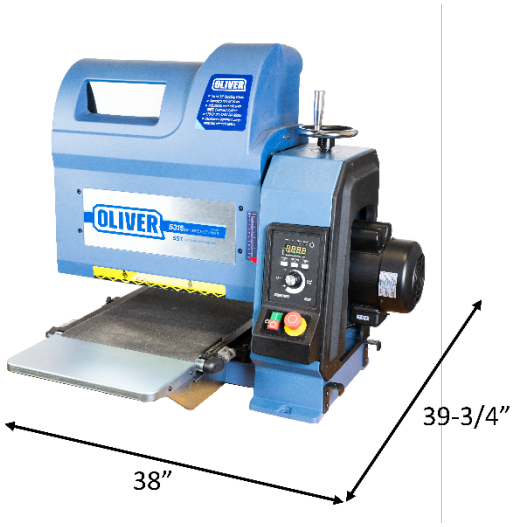
Setup

Shop Preparation

Space Requirement

The dimensions of this machine are 38“(L) x 39-3/4”(W) x 33-1/2”(H). You will need at least 36” clearance around the machine for workpiece handling, electrical connection, dust collection connection, and safe operator movement.

Mounting this sander on a sturdy mobile base with lockable casters can be helpful for workshops with limited space.



Load Limits

This machine has a shipping weight of 429 lbs., and a net weight of 322 lbs. Ensure that all lifting equipment and building structures can safely support the combined weight of the machine, operator, and any additional equipment used during setup.

Electricals

Make sure a properly sized circuit and electrical outlet are available near the machine. Please refer to section “Electricals” on page 14 for details regarding electrical requirements.

Lighting

Adequate lighting is required for safe machine operation. Install overhead lighting that provides clear visibility of the work area without glare or shadows.

Safety Labels

If this machine introduces new hazards to your workplace, install appropriate warning signs in visible locations.

Dust Collection

Wood dust generated by sanding operations may pose respiratory health risks. High-quality dust masks should be available for using the sander.

Connect this machine to a dust collection system. Check air suction strength regularly to ensure dust and shavings are effectively removed.

⚠ **CAUTION**	**Air resistance and leakage in a dust collection system impact its effectiveness. Use a dust collection system capable of delivering at least 550 CFM at this sander’s dust port. Doing so improves air quality in the workplace and prevents the machine from jamming.**

Receiving the Shipment

Your shipment should arrive in one pallet. If purchasing the tool stand along with the sander, the tool stand shipment may arrive in a separate pallet or stack on top of the sander crate. Upon receiving your shipment, check for any significant damages before signing the freight delivery Bill of Lading (BOL).

Tool Stand (Sold Separately)

Sander

IMPORTANT	If any items are damaged, please call us immediately at **1-800-559-5065** Freight damage must be reported directly to the transport carrier immediately at the time of delivery and must be noted on the signed copy of the delivery Bill of Lading (BOL) paperwork otherwise a freight claim may not be claimed.

⚠ **CAUTION**	**Always wear safety goggles and gloves when removing straps for securing your package. Straps may spring back violently when released and cause injury.**

Moving the Machine

Your machine will be delivered by freight service, and it will be left outside of your workshop by default. On the day of delivery, please be sure help is available to move the machine to the desired location.

⚠ **WARNING**	**5315 Open End Wide Belt Sander has a gross weight of 429 lbs. and a net weight of 322 lbs.** **Use a forklift, pallet jack, or other suitable lifting equipment to move the machine. Safe moving techniques are required, or serious personal injury may occur.**

⚠ **WARNING**	**Your machine may be secured by the straps. Do not lift your shipment by the straps. They are not designed to hold the total weight of your shipment. They may snap without warning and cause serious injury and machine damage.**

Unboxing

The sander is packed inside a wooden crate, and the optional tool stand is packed in a separate container. You should find the sander and a box of loose parts packed inside the crate. Before starting the sander, remove the packing material sandwiched between the sanding belt and the conveyor belt.

Remove the shipping brackets securing the sander to the pallet before lifting the machine.

⚠ **WARNING**	**Do not connect the machine to the power source until all setup and assembly steps are complete.**

Inventory Check

Carefully remove the packaging and inventory all components included in the shipment before beginning the assembly:

Extension Tables Parts

Item	Description	Quantity
1	Extension Table	2
2	Extension Table Brackets	4
3	Socket Head Screw Washer Combo	8
4	Hex Button Head Cap Screws	8

NOTICE: If you cannot find an item in the list above, please check if it is still attached to the packaging. Occasionally, the item may have been pre-installed at the factory. See section "**Parts List**" to check if a component is included or installed.

NOTICE: This machine comes with various standard sized, non-proprietary parts. If any of these parts are missing, we are happy to deliver them to you. To have the machine up and running as soon as possible, you can also find these parts at your local hardware store.

Additional Items for Machine Assembly

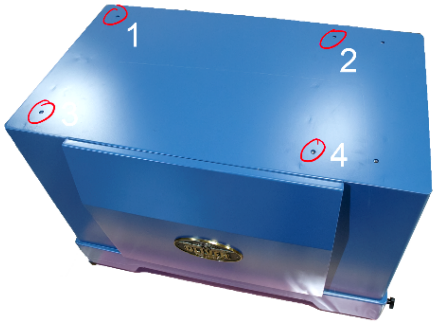
Item	***Purpose***
Safety glasses	Protection
Disposable gloves	Protection
Paper Towel	Cleaning
Ratcheting Wrench	Machine Assembly
Metric Hex Bit Socket Set and Socket Extension	Machine Assembly
Phillips Head Screwdriver	Sanding Belt Replacement

Setting Up the Tool Stand

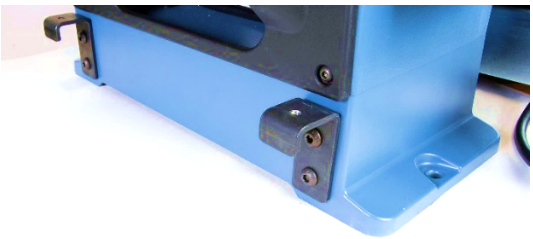
The tool stand is sold as an optional item and is preassembled.

1. Inside the tool stand's cabinet, there is a pack of socket head screw, spring washers and flat washers for mounting the sander.

2. To mount the sander to the tool stand, locate and align the four screw holes with the sander's predrilled holes on the base.



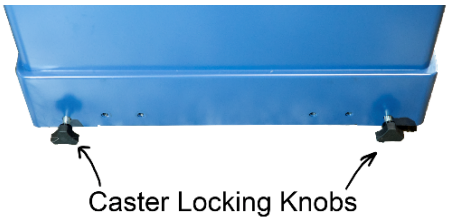
3. Please note that the sander is very heavy. The brackets used to secure the machine to the pallet may be installed upside down and used as temporary lifting handles.

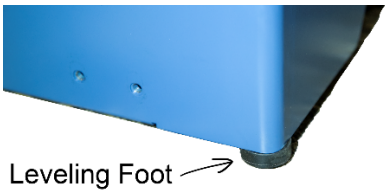


4. Insert the spring washers then the flat washers into the socket head screws.

5. Use the fasteners to secure the sander onto the tool stand.

6. The tool stand comes with casters and leveling feet. After moving the machine into the desired location, the machine should stay stationary. Tighten the caster locking knob. Rotate the rubber leveling feet so they are lowered to the floor to support the tool stand.

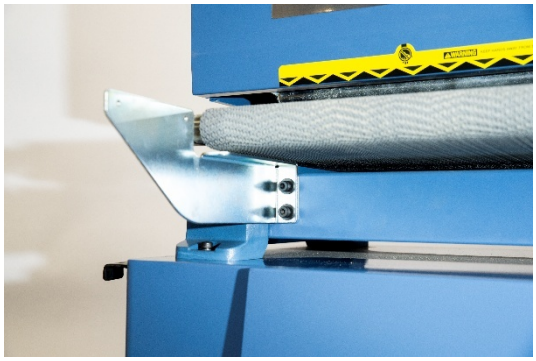




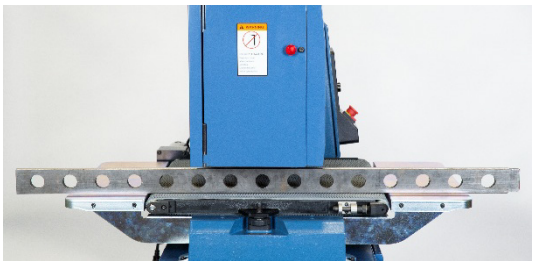
7. After the sander is mounted to the tool stand, reinstall the brackets on the tool stand if they are required for lifting the assembled machine.

Extension Table Installation

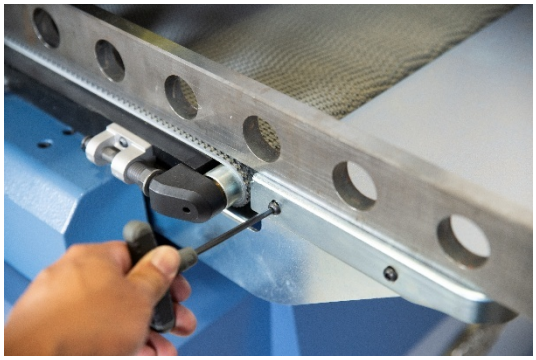
1. Locate the screw holes under the conveyor belt for the extension table brackets. Mount the brackets using the socket head screw/washer combo (extension table part #3). Only hand tighten the screws, so the bracket position is adjustable for the next step.



2. Install the extension tables on top of the bracket, then install the hex button head cap screws (extension table part #4). Only hand tighten the screws so the table can be adjusted in the later steps.
3. Tighten the socket head screws to secure the extension table brackets.
4. Place a straightedge across the conveyor belt and extension tables.



5. Adjust the extension tables so they are flush with the conveyor belt front-to-back and side-to-side, then fully tighten all fasteners.



Dust Collection Connection

This sander can generate a lot of dust. Connect this machine to a dust collection system.

The minimum CFM requirement for this sander is 550 CFM delivering at the dust port, which means the dust collection system should have a rating greater than 550 CFM, as air friction and leakage can reduce effective CFM at the dust port.

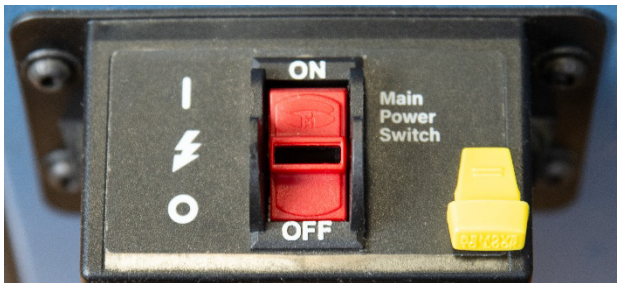
IMPORTANT

Running this sander without a dust collection system or using a dust collection system with inadequate suction may cause machine damage, clogging, overheating, or unsafe working conditions. Check the sander's dust chute and the dust collection system regularly to make sure it is not clogged or filled up.

Controls and Components

Main Power Switch

There are two sets of power switches. The main power switch is located on the back of the sander. Use this switch to completely shut off the sander. Turn off the main power switch when the machine will not be used for an extended period. Removing the lockout key when the switch is at the OFF position prevents unauthorized use of the machine.



IMPORTANT	**Do not turn off the main switch until the sanding belt comes to a complete stop. Failure to do so may cause the sanding belt to drift beyond its oscillating range and may damage the machine and the sanding belt.**

Control Panel

The control panel contains the following key components:

- Power Indicator
- Digital Readout (DRO)
- Feed Rate Dial
- Sanding Belt Motor ON/OFF Switch
- Emergency Stop

Power Indicator

The Power Indicator light turns on when the sander is connected to power.

Digital Readout (DRO)

Use the DRO to set the thickness of the workpiece to sand down to, or to see the amount of material removed.

Once calibrated, the DRO displays the height of the sanding belt and can be used to set the desired workpiece thickness. Refer to section “DRO Recalibration” on page 32 to recalibrate the DRO.

1. The DRO has an internal memory to store the readings. Two seconds after the sanding belt height stops changing, the display will show “---” and save the current value. This value is saved even when the sander is disconnected from the power source. Therefore, as long as the sanding belt height remains unchanged while the power is cut off, the DRO will not require another calibration.
2. The DRO can display the measurements in inches or mm. Use the “in/mm” button to toggle between imperial and metric units.
3. Use the “Display” button to turn on or off the display. To prevent burn-in, the display turns off automatically 10 minutes after showing the same value. To turn on the display, simply press the “Display” button, or change the height of the sanding belt.
4. Besides using the DRO to show the absolute height of the sanding belt, it can also be used to show how much material is removed from the stock. To do so, zero the DRO before sanding the board. Short press the “ABS Zero” button to reset the DRO’s reading to zero. As the sanding belt is lowered, the DRO Negative Value Indicator will light up, and the display will show the position change of the sanding belt since the DRO is reset.

   The DRO will need to be recalibrated to show the absolute height of the sanding belt after the reading is zeroed.

Feed Rate Dial

Use the Feed Rate Dial to set the speed of the conveyor belt ranging from 0 to 10 fpm. When the machine is overloaded, the SST indicator will turn on, and the feed rate will reduce automatically.

Before connecting the machine to power, turning on the main switch, or resetting the emergency stop, the feed rate dial must be set to the OFF position.

Otherwise, the Alarm Light will turn on and the Display will show the error message "Vr". Simply turn the Feed Rate Dial to the OFF position to clear the error.

To avoid tripping the alarm, always set the conveyor belt speed to zero before turning off the machine.

Error message "Vr"

Sanding Belt Motor ON/OFF Switch and Emergency Stop

Use the Sanding Belt Motor ON/OFF Switch to start/stop the sanding belt. When the motor is running, the motor indicator light turns on.

In case of emergency, press the Emergency Stop Button to turn off the sander. Error code "ENN9" will show on the display. Complete the following steps before restarting the machine:

1. Turn the Feed Rate Dial to the OFF position.
2. Rotate the Emergency Stop Button clockwise until it is released.

Sanding Belt Height Adjustment Handwheel

Each full rotation of the handwheel adjusts the sanding belt height by 1/12". Adjust the sanding belt height in small decrements to prevent the burning of the workpiece and the sanding belt. In general, as the grit number of the sanding belt increases, less material can be removed per pass.

Test Run

Before using the sander for the first time, complete this test run to become familiar with the machine and ensure all key components are functioning properly.

1. Before connecting the sander to a power source, ensure the Main Power Switch and Feed Rate Dial are in the OFF position.
2. Check the tension of the sanding belt and conveyor belt. Verify that both are properly installed and correctly tensioned.
3. Ensure the extension tables are securely mounted and flush with the conveyor belt.
4. Connect the machine to the power source.
5. Turn ON the Main Power Switch. The power indicator on the control panel should illuminate, and the sanding belt oscillation mechanism should perform a brief self-check cycle. This sander is prewired for a 115V single-phase power source. The display should momentarily show "1151" during startup.
6. Ensure nothing is trapped between the sanding belt and conveyor belt. Use the handwheel to adjust the sanding belt height. The DRO should update as the height changes.
7. Lower the sanding belt to its lowest position and confirm it does not contact the conveyor belt.
8. Increase the conveyor belt speed and run it for several minutes to make sure it is tracking properly. If the conveyor belt drifts to one side, stop the conveyor belt and follow the instructions in “Adjust Conveyor Belt Tension and Tracking” on page 36 before resuming the test run.
9. Press the Sanding Belt Motor ON button to start the sanding belt. The belt should begin moving immediately. Observe the tracking as it oscillates. The system is self-correcting, even if the belt is initially installed slightly out of range. Allow the sanding belt to run without stock for 3-5 minutes. It should oscillate across the full 15-inch sanding width.
10. Press the Emergency Stop button. The sanding belt motor, conveyor motor, and oscillation motor should all stop. The display should show error code "ENN9". Rotate the Emergency Stop button clockwise until it is released. The display should change to "Vr". Turn the Feed Rate Dial to OFF to clear the error code.
11. Turn OFF the Main Power Switch. Remove the lockout key and attempt to turn the machine ON. The machine should not start.
12. Ensure the Main Power Switch is OFF. Reinsert the lockout key to complete the test run.

Congratulations! You have completed the test run. If any issues are detected, refer to the Troubleshooting and Maintenance sections before operating the machine.

Operation

Preparation before Sanding

Material Selection and Inspection

This machine is primarily designed for sanding good quality natural wood materials. Avoid cracked stock or boards with loose knots. These can break apart during sanding and can cause severe kickbacks, which can lead to severe injuries and machine damage. Using this sander for other material types may damage the sanding belt, shorten its lifespan, or create hazardous situations. For example, sanding ferrous metals can create sparks, and that can ignite flammable materials nearby.

Do not sand treated lumber or anything that contains harmful chemicals, as this may produce hazardous dust containing harmful chemicals.

Carefully inspect the workpiece for foreign objects. Nails, staples, rock chips, and other objects embedded on the wood surface can damage the sanding belt. Clean the workpiece with a stiff brush as needed.

Glue, paint, and moisture on the workpiece can gum up the sanding belt. Make sure the stock is dry and remove glue and paint before sanding if possible. Switch to a coarse-grit sanding belt and clean the belt frequently if necessary.

Warped Stock

To avoid possible kickback, boards for sanding should have one side flattened before being processed by the sander. It is acceptable to process a slightly cupped board. Place the concave side of the board facing down on the conveyor belt and sand with light passes.

Very Thin Stock

Do not sand extremely thin or flexible materials that cannot be safely controlled by the feed rollers.

Supporting Large Workpiece

Support long or heavy workpieces with auxiliary tables or roller stands to prevent injury and ensure a consistent sanding result.

Safety Devices

Always wear high-quality dust masks and use the dust collector when operating the sander.

Clear the Work Area

Before turning on the sander, make sure the conveyor belt is free of debris, and nothing is trapped between the conveyor belt and the sanding belt.

Operation Safety and Tips

⚠ **CAUTION**	**Never feed workpieces shorter than the minimum required length as shown in the specification. Workpieces that are shorter than the minimum required length will not be held down securely by the feed roller. It may be caught by the sanding belt, destroying both the workpiece and the machine, and result in injuries.**

⚠ **WARNING**	**Never sand more than one workpiece at a time unless the workpieces are the same thickness.**

⚠ **WARNING**	**Never attempt to pull a workpiece backward while it is being fed through the sander. Failure to comply may cause kickback and serious injury. If the workpiece is jammed, stop the sander and wait for the machine to go to a complete stop, then raise the carriage to remove the workpiece.**

IMPORTANT	To minimize heat buildup, sand with a high feed rate and reduced depth of cut. Heat buildup can increase the amount of clogging on the sanding belt and reduce its life.

IMPORTANT	This sander is equipped with the Safe Sanding Technology (SST), which protects the machine from overload conditions. If the sander draws more current than allowed, the “Smart” Indicator (SST Indicator) on the control panel will light up and the feed speed will decrease automatically to reduce the load. Reduce the amount of material removed for the next pass when this warning light turns on.

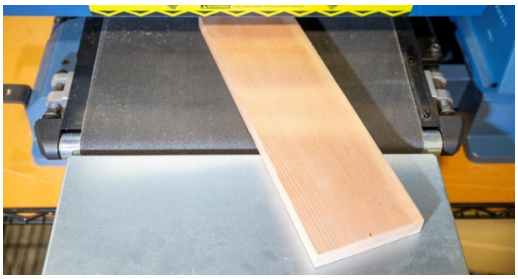
IMPORTANT	Use the entire width of the sanding belt to ensure the sanding belt wears evenly.

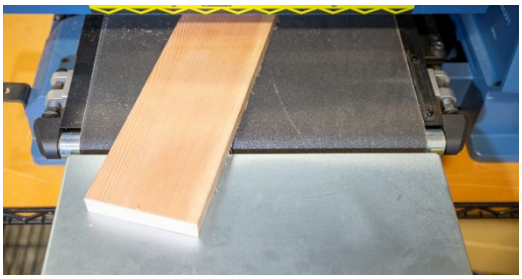
Abrasive Planing

To protect the workpiece and the sanding belt, it is essential to properly set the sanding belt height before each pass through the sander.

1. To set the initial height of the sanding belt, ensure the DRO is calibrated. Refer to section “DRO Recalibration” on page 32 for instructions.
2. To efficiently remove material, use a coarse sanding belt (80 grit or lower). Use the instructions in “Changing Sanding Belt” on page 32 to switch to a different sanding belt.
3. Measure the thickness of the thickest part of the workpiece. Raise the carriage so there is enough room for the entire workpiece to pass through the sander. For the first pass, adjust the sanding belt height so the thickest point of the workpiece barely contacts the sanding belt. When in doubt, err on allowing more room for the workpiece to feed through. This prevents the workpiece from getting jammed and damaging the sanding belt.
4. For each subsequent pass, lower the sanding belt by no more than 1/48” (1/4” turn of the sanding belt height adjustment handwheel). The DRO shows the thickness of the workpiece after it passes through the sander.
5. Repeat step 4 until the workpiece reaches the desired thickness. To produce a fine finish, switch to finish sanding approximately 1/32” before reaching the desired thickness.

TIP: If possible, offset the feeding angle of the workpiece slightly on each pass. Doing so can improve the efficiency of material removal.





Sanding Multiple Workpieces Simultaneously

Only sand multiple workpieces at the same time if they have the same thickness. Stagger the workpieces on the conveyor belt to maintain consistent feed pressure.

Finish Sanding

Make sure the surface of the workpiece is flattened before commencing this step. Mark the surface of the workpiece with pencil lines across its length and width, then run a test pass. If the workpiece is flat, all pencil marks should be removed.

Whenever possible, feed the workpiece in the direction of the wood grain to reduce tear-out and improve surface finish.

To produce a fine finish, sand the workpiece with increasingly fine grit abrasives. As a rule of thumb, do not increase the grit number by more than 1.5 times of the previous grit. This sander is shipped with an 80-grit sanding belt, so the next grit to use can be 80 * 1.5 = 120 grit, and the next step can be 120 * 1.5 = 180 grit, and so on.

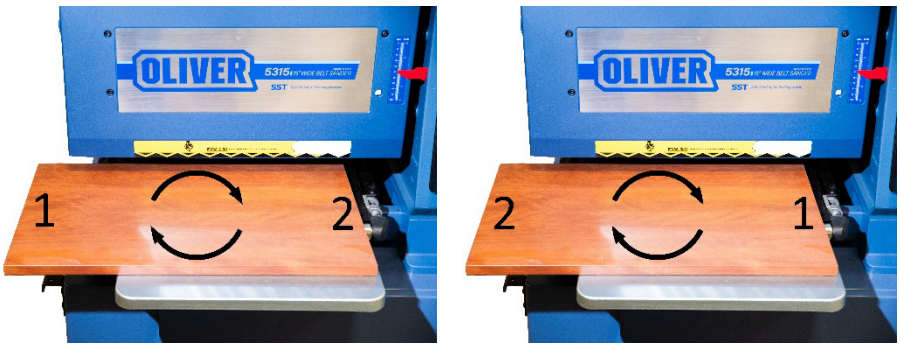
Contact Oliver service department to purchase additional 16” x 48” sanding belts. Oliver carries sanding belts ranging from 60 grit to 180 grit. See “Accessories” on page 29 for part numbers. To change to a different sanding belt, use the instructions in “Changing Sanding Belt” on page 32.

Reduce the amount of material removed per pass when using finer grit sanding belts. Fine grit abrasives remove material more slowly and are more likely to become clogged. The maximum amount of material that can be removed per pass depends on several factors, including feed speed, wood species, sanding belt grit, and belt condition. Excessive material removal in a single pass may overload the sander, burn the workpiece, or damage the sanding belt. When in doubt, begin with light passes, then gradually increase the depth of cut in small increments as needed.

To produce very fine finish, it may be necessary to complete a final pass with hand sanding or using random orbit sander. Reducing the sander’s feed rate and depth of cut to minimum can also produce a similar effect. Make sure the workpiece has enough thickness left for the final finishing pass.

Sanding Wide Workpieces

This open-end sander can sand workpieces of up to 30” wide. To sand a workpiece that is over 15” wide, after sanding one side, rotate the workpiece 180° and sand the opposite side.



Accessories

Oliver Machinery offers a selection of accessories designed to improve the performance, durability, and convenience of your wide belt sander.

Accessories are available on our website: **olivermachinery.net**

To order by phone, please call us at **1-800-559-5065.** We are available Monday through Friday, 6:30 AM - 3 PM Pacific Time.

You can also email us at **info@olivermachinery.net** to purchase accessories.

Sanding Belts

Many sanding applications benefit from progressing through several grit levels:

- 60-80 grit – material removal and calibration sanding
- 100-120 grit – intermediate smoothing
- 180 grit – final surface preparation before finishing

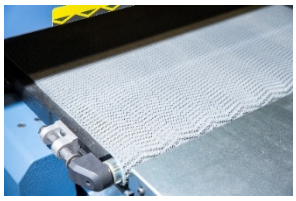
Maintaining a selection of sanding belts allows operators to quickly select the appropriate grit for each stage of sanding.

Part Numbers:

- **5315.A060** (60 Grit)
- **5135.A080** (80 Grit)
- **5135.A100** (100 Grit)
- **5135.A120** (120 Grit)
- **5135.A180** (180 Grit)

Poly

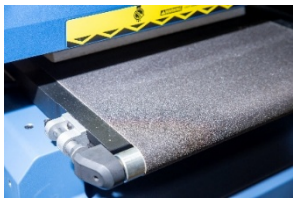
PVC Conveyor Belt



The PVC conveyor belt is designed for durability and provides improved grip when sanding rough or uneven stock. This belt helps ensure consistent feeding of workpieces through the sander.

Part Number: **5315.A003**

Abrasive Conveyor Belt



The abrasive conveyor belt is designed for precision sanding applications. This conveyor belt is thin and does not yield to pressure, helping to stabilize workpieces and improve sanding accuracy.

Part Number: **5315.A002**

Tool Stand

This tool stand is custom designed for this wide belt sander. It features predrilled mounting holes for secure installation and includes a cabinet with ample storage space for sanding belts and accessories.

Part Number: **5315.A001**

Touchup Paint

Keeping painted surfaces in good condition not only maintains the appearance of your machine but also helps prevent rust. Oliver Machinery offers pre-mixed spray paint in Oliver Blue to match the original factory finish.

WARNING **Using unapproved accessories may cause the machine to malfunction and may result in serious injury or machine damage. Only use accessories recommended for this machine.**

Maintenance

Routine maintenance helps keep your sander operating safely and efficiently. Follow the maintenance schedule below and record completed tasks using the maintenance record worksheet provided in this manual.

NOTICE: Maintenance frequency may vary depending on operating conditions and machine usage.

Task	Frequency
Inspect power switch, cord, and plug for damage.	Before each use.
Inspect the sanding belt and conveyor belt for signs of failure.	Before each use.
Inspect conveyor belt tracking.	Daily.
Clean sanding belt with belt cleaning pad.	When the sanding belt is clogged.
Clean sanding belt oscillation sensors.	When error code OSC1/OSC2/OSC3 appears on display.
Remove dust from machine.	Every 40 hours of operation.
Lubricate feed roller bushings	Every 40 hours of operation.
Lubricate conveyor belt roller bushings.	Every 40 hours of operation.
Clean and lubricate drum elevation screw and guide slots.	Yearly, or when the sanding head elevation screw becomes dirty.

WARNING **Disconnect the machine from the power source before performing any maintenance or service. After servicing the sander, remove all tools and loose parts before restarting the machine. Failure to comply can cause serious injury!**

Sanding Belt Cleaning

TIP: Frequent cleaning of the sanding belt helps extend abrasive life and maintain consistent sanding performance.

Purchase a rubber cleaning pad designed for wide belt sanders from a local woodworking supply store. Set the depth of cut to the minimum setting, then feed the cleaning pad through the machine until the sanding belt is clean.

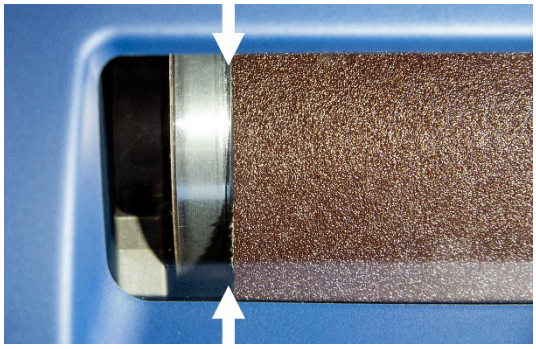
Changing Sanding Belt

This sander uses a 16” x 48” sanding belt.

1. **Disconnect the machine from the power source.**
2. Remove the screw that keeps the drum access door shut, then open the door.
3. Rotate the sanding belt tensioner handle counterclockwise to loosen the sanding belt.

4. Remove the sanding belt from the drums.
5. Reverse the steps above to reinstall a different sanding belt. Some sanding belts are directional. Check the arrow printed on the back of the belt and install it so it rotates in the correct direction.

6. When installing the sanding belt, check the position of the belt via the observation window. The left edge of the belt should align with the groove of the upper drum as shown in the picture.

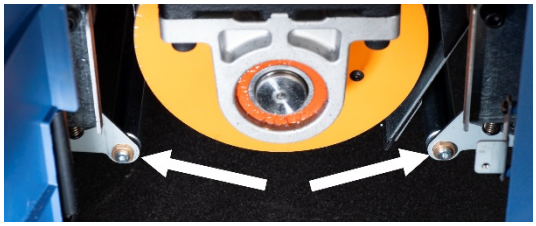


DRO Recalibration

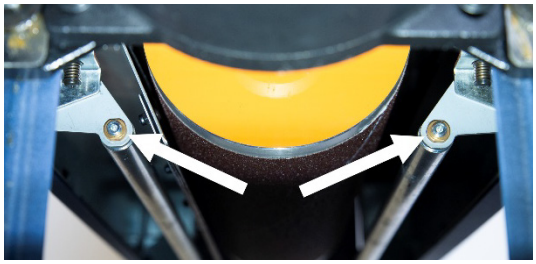
1. For the most accurate calibration, use a high-quality caliper for this process. If a caliper is not available, use a measuring tape as an alternative.
2. Prepare a piece of flat scrap board that is slightly over 1” thick.
3. Connect the sander to power.
4. Perform “Abrasive Planing” as described on page 27, but after the first pass, calculate the amount of material needed to remove to reach 1”. For example, if the thickness of the scrap piece is 1.125”, then 0.125” of material should be removed.
5. Short press the “ABS Zero” button to zero the readings.
6. Sand the scrap piece until the DRO shows the amount removed matches the calculated value. Stop sanding when the workpiece is exactly 1”.
7. Long press the “ABS Zero” button on the control panel. The display should now read 1.000”, matching the thickness of the workpiece.

Lubricate feed roller bushings

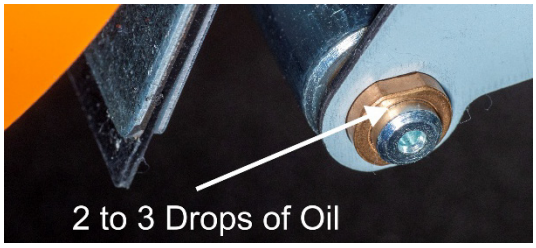
1. **Disconnect the machine from the power source.**
2. Open the drum access door to access the outboard side of the feed roller bushings.



3. Raise the sanding head to access the inboard side on the feed roller bushings.

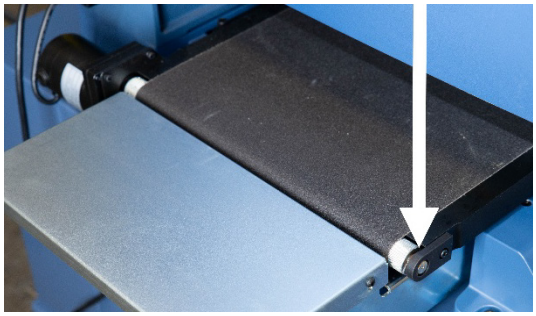


4. Add 2-3 drops of light machine oil to the pressure roller bushings.



Lubricate Conveyor Belt Roller Bushings

1. **Disconnect the machine from the power source.**
2. There are two roller bushings in the front and one on the back.



3. Add 2-3 drops of light machine oil to the conveyor belt roller bushings.

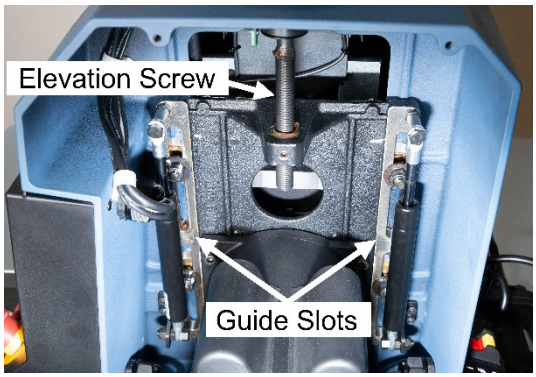
IMPORTANT

Do not overlubricate components that are exposed to wood dust. Over lubrication encourages saw dust build up, binding the parts that are supposed to be lubricated.

Lubricate Drum Elevation Screw and Guide Slots

1. **Disconnect the machine from the power source.**
2. Remove the panel on the right side of the sander.

3. Thoroughly clean the elevation screw and the guide slots.



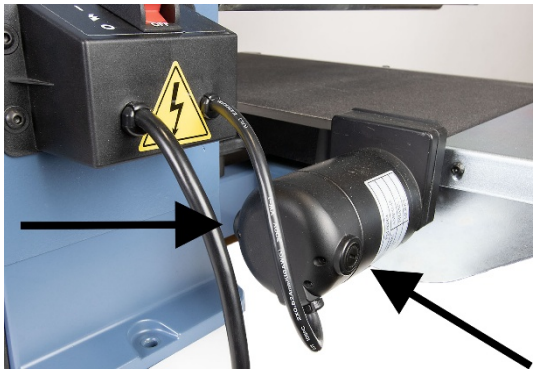
4. Apply a thin coat of dry lube on the parts.
5. Reinstall the panel before restarting the sander

IMPORTANT	**Do not overlubricate components that are exposed to wood dust. Over lubrication encourages saw dust build up, binding the parts that are supposed to be lubricated.**

Replace DC Motor Carbon Brushes

The conveyor belt motor and the sanding belt oscillation motor are universal DC motors. Over time, the carbon brushes will wear away, and the motors will fail to function properly. Contact Oliver customer service to order replacement carbon brushes.

1. **Disconnect the machine from the power source.**
2. Remove the threaded cap to replace the old carbon brush. There are two carbon brushes for each motor, and they are located on opposite sides of the motor.



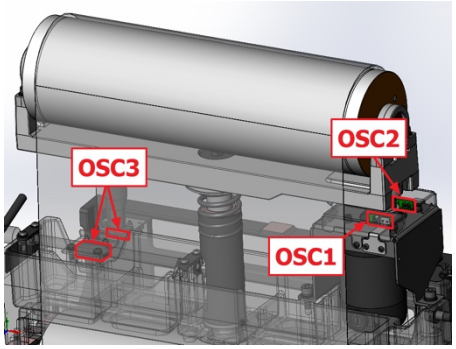
3. Reconnect the sander to power, then run the motor for 3–5 minutes to allow the carbon brushes to break in.

Clean Sanding Belt Oscillation Sensors

There are three sensors to monitor the sanding belt oscillation mechanism. Over time, wood dust and debris can accumulate inside the sander and block the sensors.

When error code: OSC1, OSC2, or OSC3

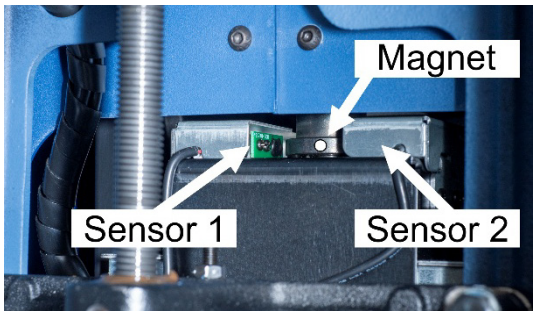
appears on the display, the machine will stop running. Clean the sensors and restart the machine to clear the error. The diagram on the right shows the locations of the sensors and the corresponding error code.



To Clear the OSC1/OSC2 Error:

1. **Disconnect the machine from the power source.**
2. Remove the panel on the right side of the sander.

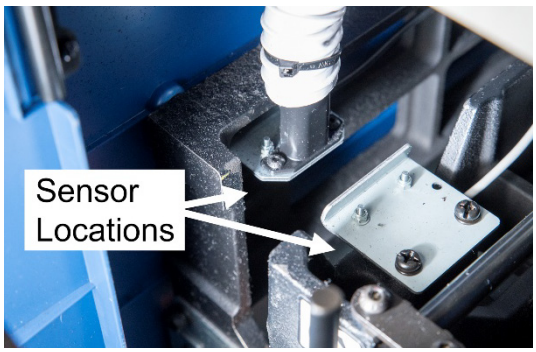
3. Lower the sanding head and locate a pair of magnetic sensors behind the sanding head elevation screw. Between the sensors, there is a magnet mounted on an eccentric wheel.



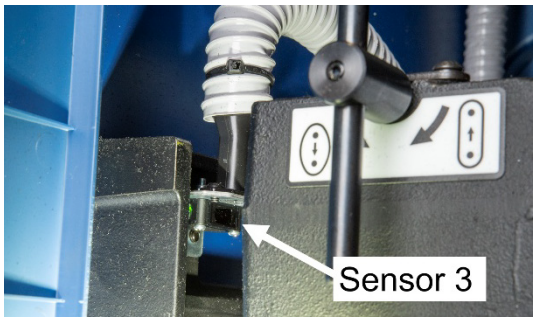
4. Vacuum the sensors and the magnet with a vacuum. Ensure there is no metal or magnetic debris interfering with the sensors.
5. Reinstall the panel, then turn on the machine to ensure the error code is cleared.

To Clear the OSC3 Error:

1. **Disconnect the machine from the power source.**
2. Remove the sanding belt. See "Changing Sanding Belt" on page 32 for details.
3. Locate the sensor pair, which are mounted under the metal bracket and the small dust chute as shown in the picture.



4. Vacuum the sensor pair and ensure nothing is obstructing the infrared light transmission between the pair.



5. Ensure the dust hose for keeping the sensor clean is not clogged.
6. Reinstall the sanding belt and secure the drum access door.
7. Turn on the machine to ensure the error code is cleared.

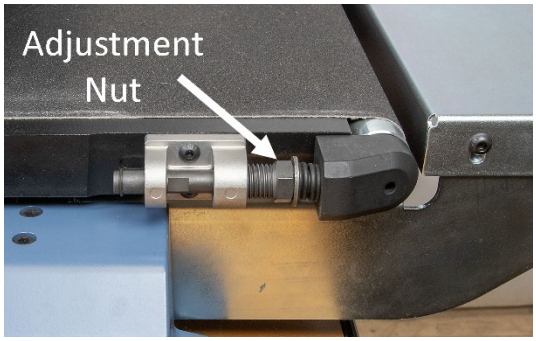
Adjust Conveyor Belt Tension and Tracking

Conveyor belt tension and tracking were pre-calibrated at the factory and should not require adjustments initially. Use the following instructions for adjustment when replacing a conveyor belt or if the belt begins to slip or drift to one side over time.

To Adjust Conveyor Belt Tension:

1. **Disconnect the machine from the power source before adjusting the belt tension.**
2. The conveyor belt should not be over-tensioned as it can reduce the life of the belt and the roller bushings. Only adjust the tension of the conveyor belt when it slips under normal workload.
3. Locate the belt tension adjusters on each side of the belt. The tensioner is spring loaded.

4. To increase belt tension, rotate the nut using a 17mm wrench to compress the spring further. Do the opposite to reduce conveyor belt tension.



5. Apply the same amount of adjustment on both tensioners to ensure the conveyor belt continues to track properly.
6. Run the conveyor belt at high speed for a few minutes to observe the tracking. The belt should not drift to either side.

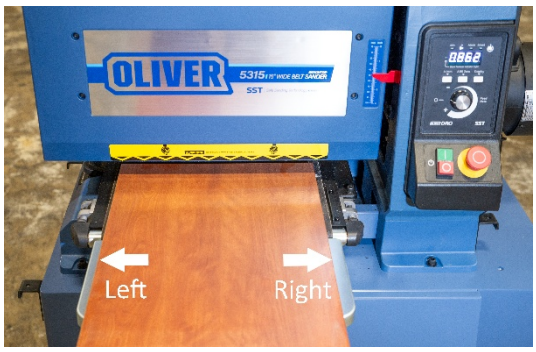
To Adjust Conveyor Belt Tracking:

1. **Disconnect the machine from the power source before adjusting the belt tracking.**
2. If the conveyor belt constantly drifts to one side, slightly increase the belt tension on the side toward which the belt is drifting, and slightly decrease the belt tension on the other side.
3. Run the conveyor belt at high speed for a few minutes to observe the tracking. The belt should not drift to either side.
4. Repeat step 1-3 until the conveyor belt tracks properly.
5. If the conveyor belt continues to drift after several adjustments, the conveyor belt should be replaced. Contact Oliver to acquire a replacement.

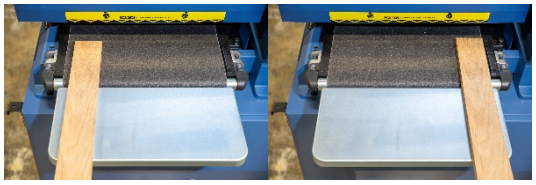
Adjust Conveyor Belt Parallelism

The parallelism between the conveyor belt table and the sanding belt drum was pre-calibrated at the factory and should not require adjustments initially. Over time, temperature changes or machine wear and tear may cause the sanded board to be slightly thicker on one side. Use the following instructions to align the conveyor belt and the edge of abrasive surface.

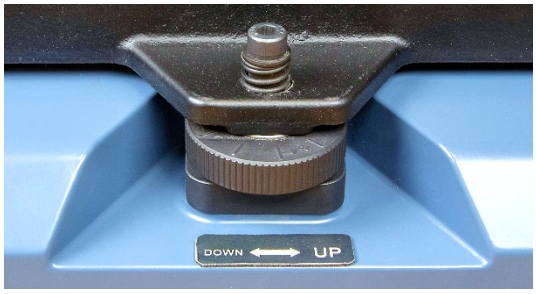
1. Prepare one piece of flat scrap wood board that is slightly under 15” wide.
2. Sand the scrap piece.
3. Measure the thickness on left/right edges of the board. The measurements should be the same.



4. If a wide piece of wood board is not available, use two pieces of flat scrap board of the same thickness. Mark them as left piece and right piece.
5. Sand one board at a time. Feed one on each side of the conveyor belt. Then compare the thickness of the boards. The measurements should be the same.



6. If the measurements are different, the conveyor belt is not aligned with the abrasive surface. Adjust the height of the outboard side of the conveyor belt to compensate.
7. **Disconnect the machine from the power source before adjusting the conveyor table.**
8. Each rotation of the conveyor table adjustment knob changes the table elevation by approximately 3/64”. Make small and gradual adjustments and retest the alignment until the conveyor belt is parallel with the abrasive surface.

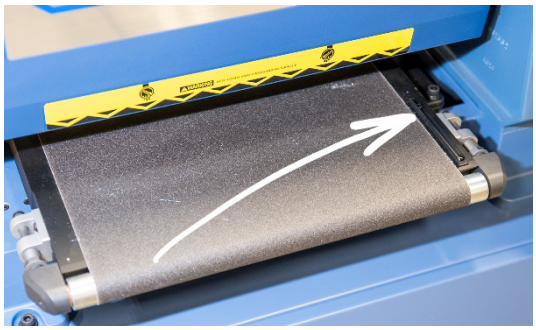


Replace Conveyor Belt

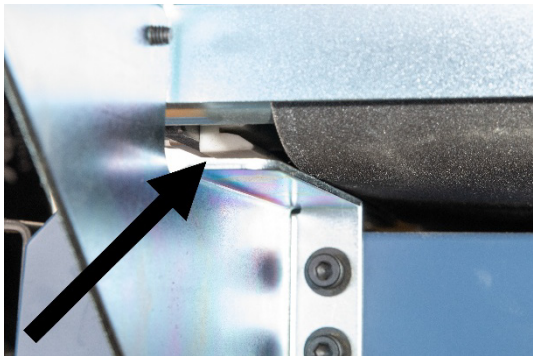
IMPORTANT

While the sanding belts and the abrasive conveyor belt may look similar, regular sanding belts are not designed or tested for use as conveyor belts. Only use replacement conveyor belts made by Oliver. Aftermarket sanding belts or similar replacements may cause uncorrectable conveyor belt tracking issues.

1. **Disconnect the machine from the power source.**
2. Completely loosen the conveyor belt.
3. If the sander is equipped with a poly conveyor belt, skip to step 5.
4. Remove the conveyor belt guide.

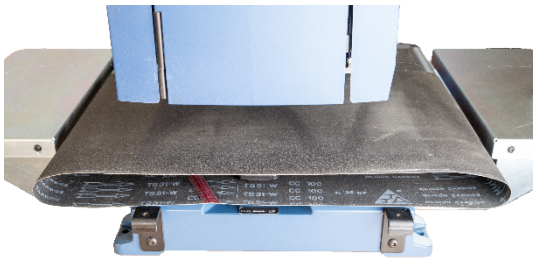


5. Slide the belt towards the inboard side of the table so the conveyor belt is detached from the ceramic guide that is under the table.



6. Remove the stem that holds down the outboard side of the conveyor belt table.

7. Cover the adjustment knob with masking tape to protect it from being scratched by the conveyor belt, then lift the table very slightly to pull out the conveyor belt.



8. Reverse the steps to reinstall the new conveyor belt. Check the arrow printed on the back of the belt and install it so it rotates in the correct direction.

   Be careful not to get the belt caught by the extension table brackets. Also, when installing an abrasive conveyor belt, ensure both edges of the conveyor belt are sitting inside the ceramic guides. Remove the ceramic guide when switching from abrasive type conveyor belt to poly type.

9. Readjust belt tension and tracking.

If a different type of conveyor belt is installed:

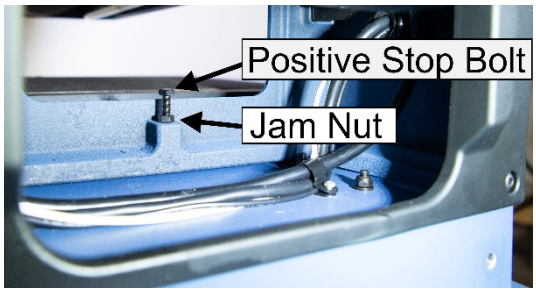
10. Recalibrate the DRO. See “DRO Recalibration” on page 32 for instructions.
11. Re-adjust sanding belt minimum height positive stop and the extension table. See instructions on the next page.

Adjust Sanding Belt Minimum Height Positive Stop

Adjust the minimum carriage height positive stop bolt when switching between poly and abrasive conveyor belt. This is necessary as these belts have different thicknesses.

1. **Disconnect the machine from the power source.**
2. Raise the sanding head and locate the positive stop bolt below the motor. Remove the panel if more space is needed to adjust the positive stop.

3. Loosen the jam nut to adjust the positive stop bolt. When properly adjusted, the minimum distance between the sanding belt and the conveyor belt should be no less than 1/32”. This prevents the sanding belt from grinding on the conveyor belt or creating a workpiece that may become too thin and break during sanding.

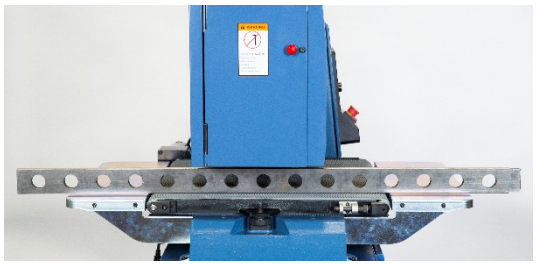


4. Tighten the jam nut after the positive stop bolt is set at the right height.

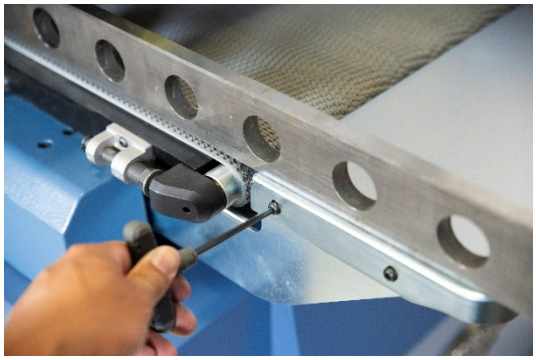
Adjust Extension Tables

When switching between conveyor belt with different thicknesses, adjust the extension table.

1. **Disconnect the machine from the power source.**
2. Place a straight edge on the conveyor belt.



3. Loosen the button head hex screws on the side of the table to adjust the position of the extension tables. Make sure the tables are flush with the conveyor belt front-to-back and side-to-side, then fully tighten all screws.



Troubleshooting

Mechanical / Electrical Issues

Problem	Possible Cause	Solution
Machine will not start	Not connected to a power source.	Make sure the machine is plugged in.
		Check the electrical panel for a tripped circuit breaker or a blown fuse.
		Ensure all electrical connections have good contacts.
	Low voltage/current.	Have a licensed electrician repair the power circuit.
	Faulty switch/motor/ capacitor.	Contact customer service for further assistance.
Machine stopped during operation.	Tripped circuit breaker or blown fuse.	Reconnect circuit. Reduce feed pressure before continuing.
Circuit breaker trips frequently.	Excessive depth of cut.	Reduce depth of cut and feed rate.
	Extension cord is too light or too long.	Use a shorter / heavier cord that meets this machine's electrical requirements.
Machine stalls or does not come up to speed	Extension cord is too light or too long.	Use a shorter / heavier cord that meets this machine's electrical requirements.
	Excessive depth of cut.	Reduce depth of cut and feed rate.
	Motor/capacitor issue.	Contact customer service for further assistance.
Machine vibrates excessively	Machine stands on uneven floors.	Reposition the machine on a flat, level surface.
	Low sanding belt tension.	Ensure the sanding belt tensioner is engaged.
		Ensure the sanding belt is not overstretched.
	Worn/broken sanding belt.	Replace the sanding belt.
	Improper motor/component mounting.	Check, adjust, and tighten motor/component mounting.
	Motor bearing issue.	Contact customer service for further assistance.
Conveyor belt drifts to one side	Belt tension uneven	Adjust conveyor belt tension and tracking
Sanding belt wanders	Belt improperly tensioned.	Ensure the size of sanding belt is correct and the belt tensioning mechanism is functional.
	Belt position sensor is blocked or dirty.	Remove dust and debris that block the sensor.

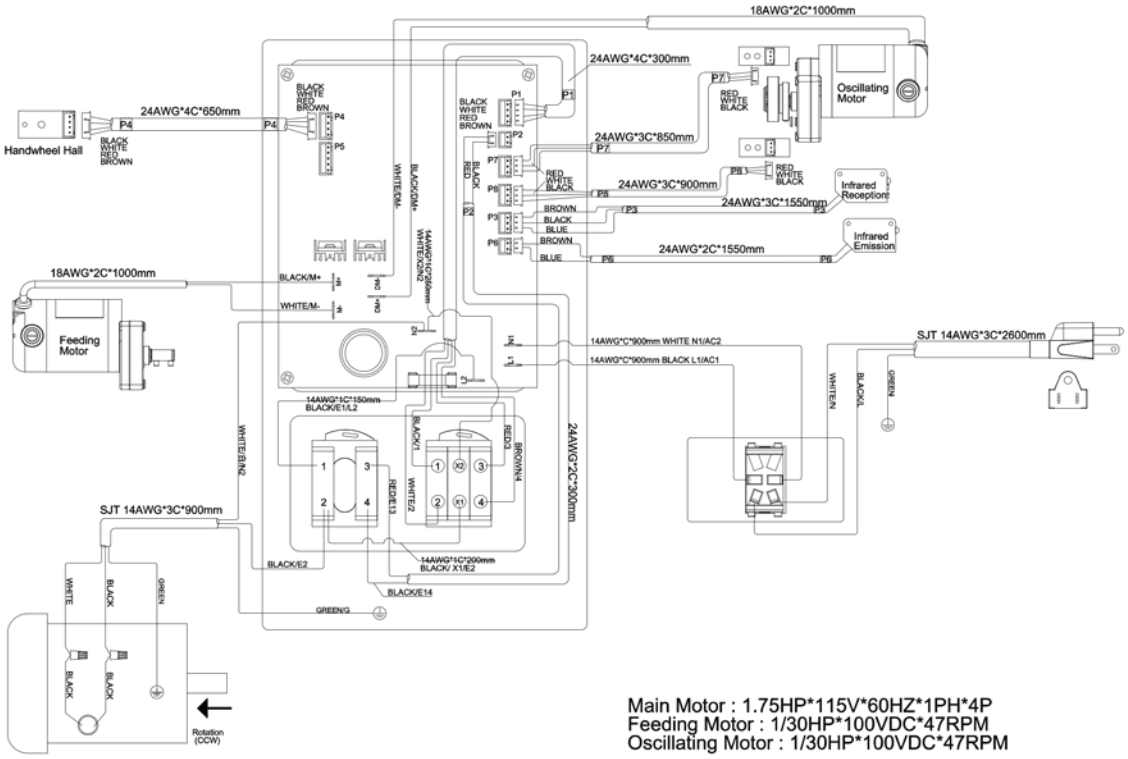
Operation / Quality-Related Issues

Problem	Possible Cause	Solution
Workpiece thickness inconsistent	Conveyor table not parallel to sanding drum	Adjust conveyor table parallelism.
Stock burns	Excessive depth of cut.	Reduce depth of cut and feed rate.
	Clogged/worn sanding belt.	Use the sanding belt cleaner to unclog the belt. Replace the sanding belt as needed.
Sanding belt clogs easily	Sanding softwood or wood with high resin content.	Clean/replace the belt more frequently.
	Sanding wet stock.	Dry stock before sanding.
	Sanding non-wood materials.	Some materials may melt easily when heated. Sand with light pressure and keep it cool when sanding.
Deep sanding marks on the workpiece	Sanding belt grit is too coarse.	Use a finer grit sanding belt.
	Dirty/contaminated sanding belt.	Clean sanding belt. Replace as necessary.
	Feed rate is too high.	Reduce feed rate.
Sanding belt wears quickly	Excessive material removal.	Reduce depth of cut
	Sanding belt grinds on conveyor belt.	Adjust the sanding belt minimum height positive stop.
Abrasive materials rub off the belt easily	Aged sanding belt.	Avoid storing sanding belts in extreme temperature or humidity which may cause the belt to fail prematurely.
		Do not fold or crush the sanding belt as it may disintegrate the bonding material on the belt.

Error Codes

Code	Cause	Solution
Enn9	Emergency Stop Button is pressed.	Rotate the Emergency Stop Button clockwise until it is released.
Vr	Feed Rate Dial is not set to the OFF position when the sander is connected to power.	Turn the Feed Rate Dial to the OFF position to clear the error.
	Machine is overloaded.	Turn the Feed Rate Dial to the OFF position to clear the error. Reduce the depth of cut before restarting the operation. Ensure the sanding belt is not clogged.
OSC1 / OSC2 / OSC3	One or more sanding belt oscillation sensor is obstructed or non-functional.	Remove the debris that blocks the sensors. If the problem persists, contact customer service for further assistance.

Wiring Diagrams

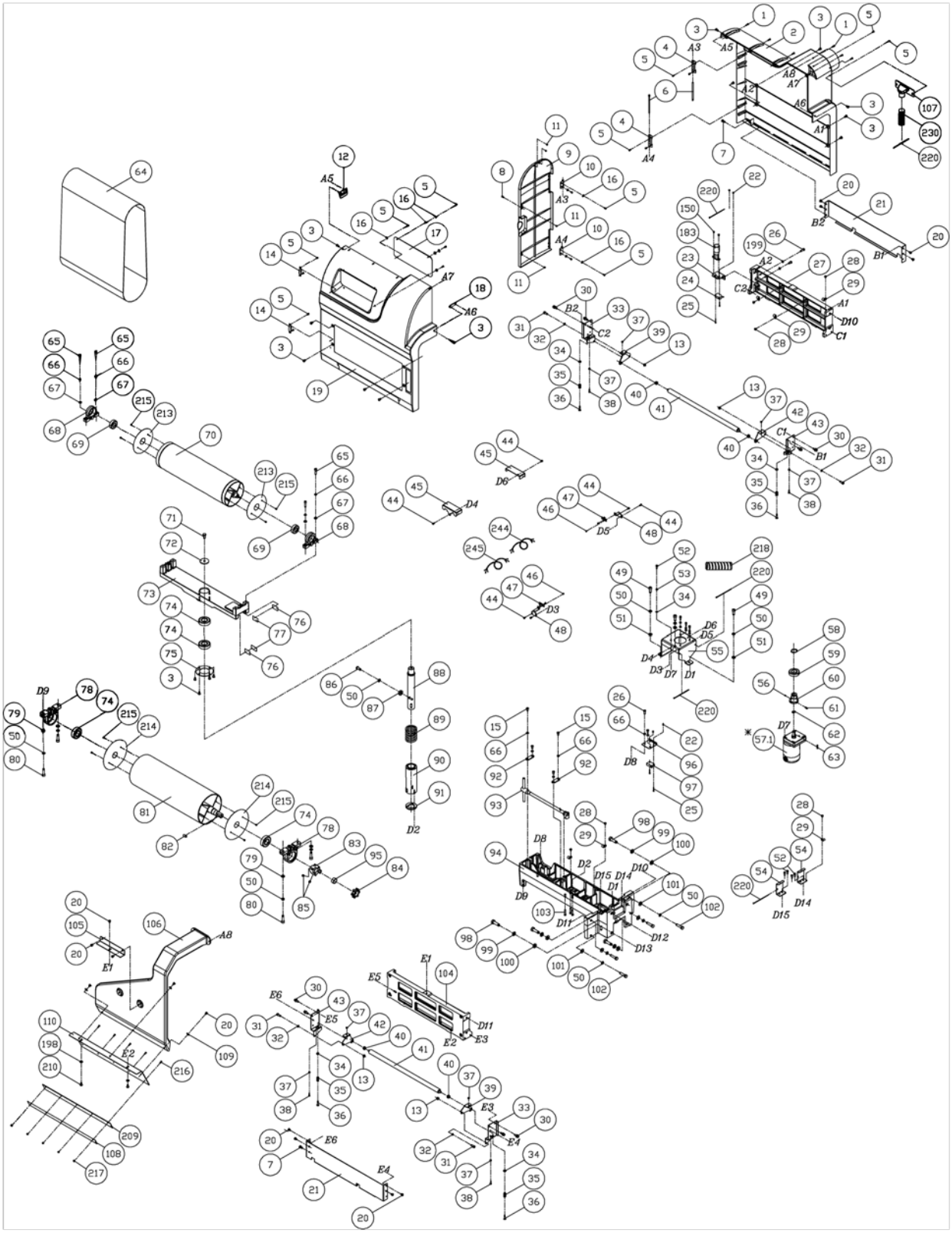


DANGER	**De-energize the electrical circuit before touching any enclosed, electrified parts. Touching an electrified part WILL result in serious personal injury or death.**

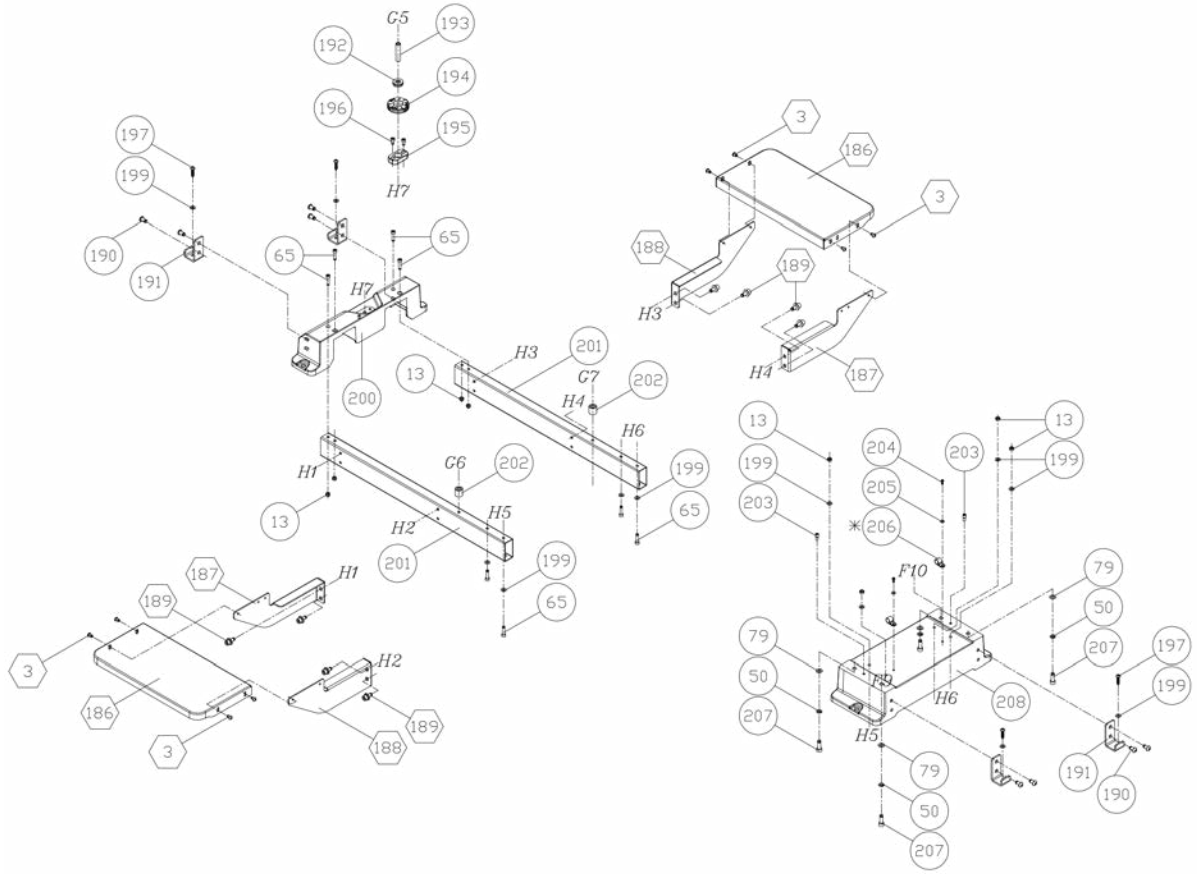
WARNING	**All electrical work must be done by a licensed electrician and must meet the electrical code in your area.**

Parts List

Sanding Drum and Housing



Extension Tables and Base



Sanding Head

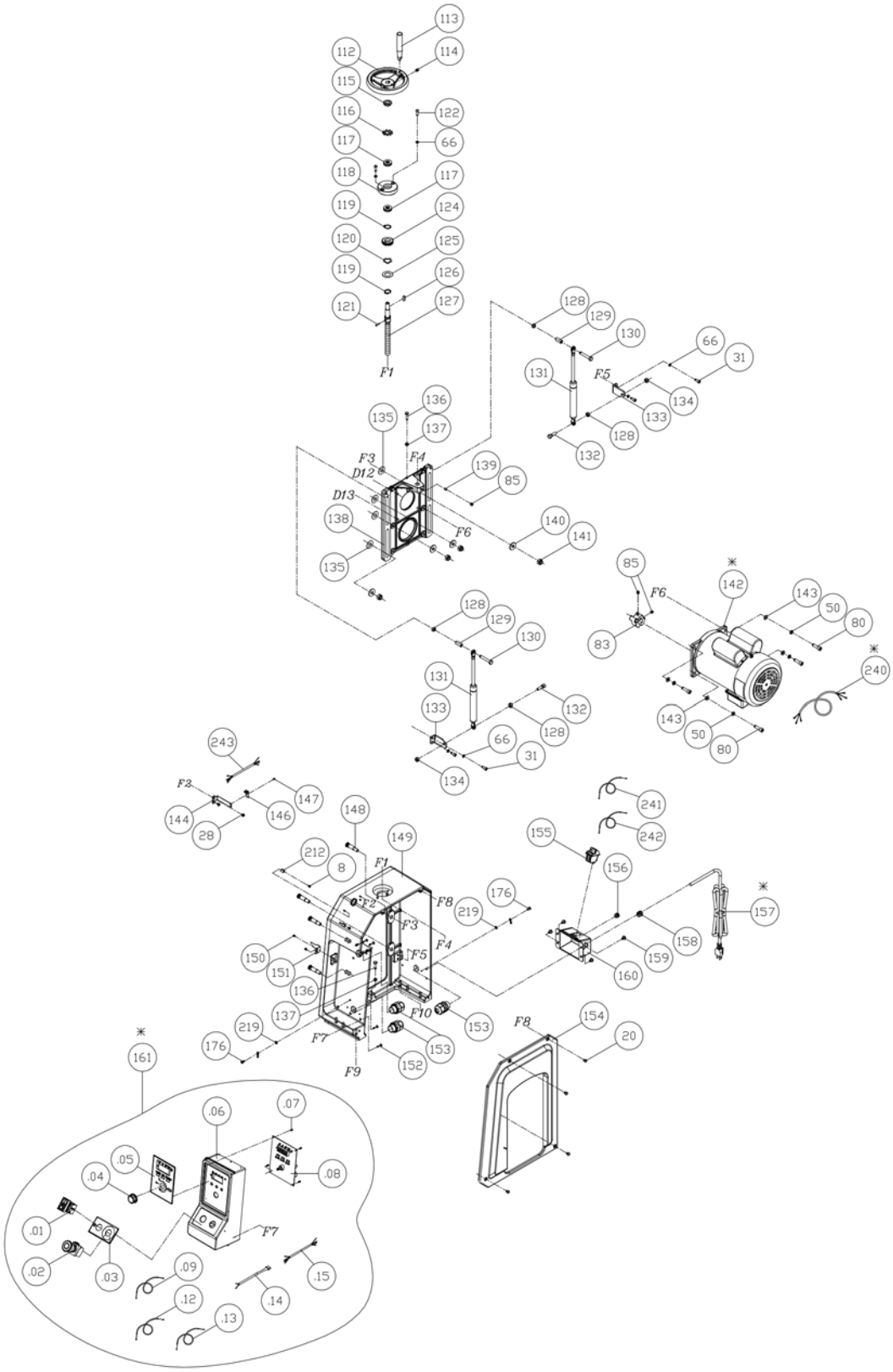
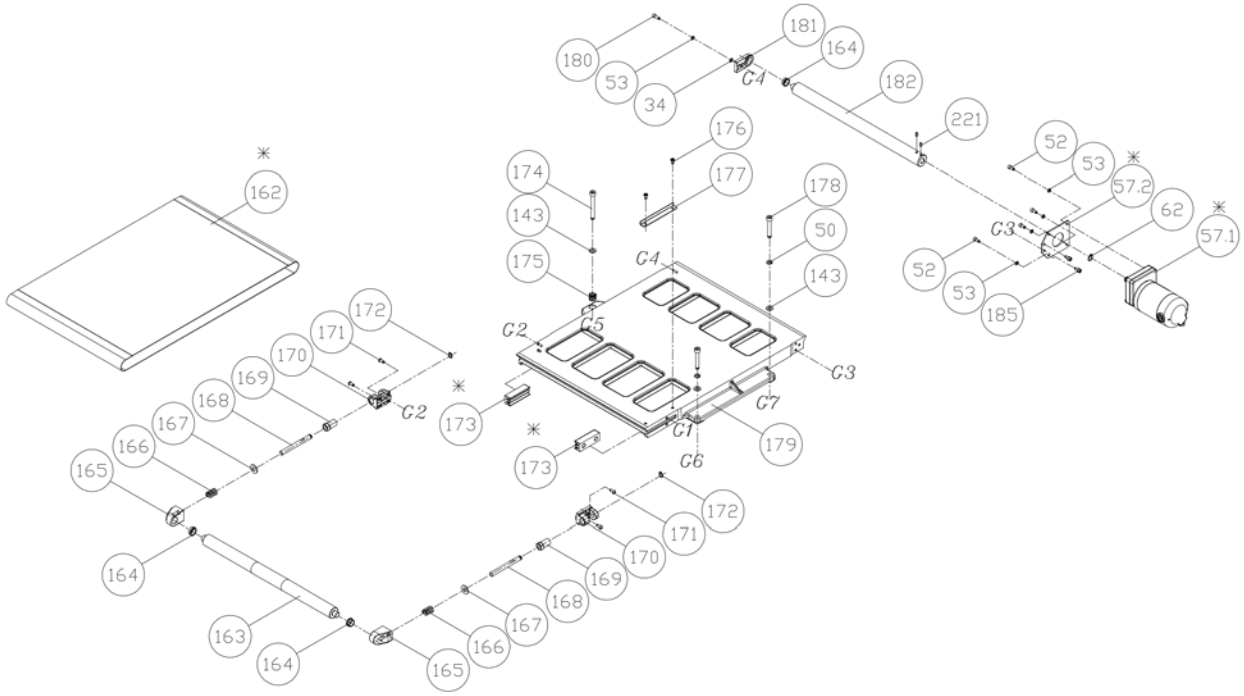


Table and Rollers



Index	Part Number	Descriptions	Specifications	QTY
1	001201-801	Thread Cutting Screw	M4*1.41P*12	6
2	251537-000	Rear Cover		1
3	000801-101	Round Head Hex Screw	M6*1.0P*10	16
4	175178-901	Fixing Plate		2
5	001201-804	Thread Cutting Screw	M4*1.41P*8	18
6	361509-000	Pin		2
7	000002-201	Hex. Screw	M6*1.0P*12	2
8	000302-202	Round Head Phillips Screw	M4*0.7P*8	4
9	251536-000	Side Door		1
10	175354-901	Latch Fixing Plate		2
11	660002-000	Magnet		4
12	175365-000	Palte		1
13	008304-100	Lock Nut 3/4”-10NC*17mm	M6*1.0P(10B*6H)	12
14	175361-000	Latch Plate		2
15	000801-102	Round Head Hex Screw	M6*1.0P*12	4
16	006003-001	Flat Washer	4.3*10*1.0t	10
17	251540-620	Window bracket		1
18	175418-000	Fixed Pressure Plate		1
19	251534-000	Front Cover		1
20	000801-108	Round Head Hex Screw	M6*1.0P*8	18
21	175419-000	Reinforcement Plate		2
22	008315-200	Lock Nut	M3*0.5P(5.5B*4H)	4
23	175463-000	Photoelectric Switch Support		1
24	491293-000	Photoelectric Switch	E3Z-T61-D	1
25	000301-207	Round Head Phillips Screw	M3*0.5P*20	4
26	002003-101	Round Head Lock Phillips Screw	M6*1.0P*15	4
27	051551-000	Rear Roller Bracket		1
28	001601-801	Round Head Phillips Screw	M4*0.7P*8/4*10*0.8t	8
29	021107-100	Cable Clip	UC-0.5BK	6
30	001502-102	Cap Screw w/Spring Washer .Flat Washer	M6*1.0P*16/6.5*10.5/6.3*13*1.0t	8
31	000103-105	Cap Screw	M6*1.0P*15	8
32	006011-204	Flat Washer	6.3*10*1.0t	4
33	175358-000	Fixing Plate-B		2
34	006001-009	Flat Washer	5.2*10*1.0t	9
35	280305-000	Compressed Spring		4
36	290105-902	Shoulder Screw		4
37	008002-100	Hex Nut	M4*0.7P(7B*3.2H)	8
38	000101-103	CAP Screw	M4*0.7P*12	4
39	175356-000	Pressing Plate-B		2
40	160034-000	Bushing		4
41	361548-905	Pressing Roller		2
42	175355-000	Pressing Plate-A		2
43	175357-000	Fixing Plate-A		2
44	000302-102	Round Head Phillips Screw	M4*0.7P*8	6
45	175375-000	Sensor Cover		2

Index	Part Number	Descriptions	Specifications	QTY
46	000301-111	Round Head Phillips Screw	M3*0.5P*4	4
47	491248-000	Speed Detector Substrate	MH253	2
48	175362-000	Sensor Bracket		2
49	000104-106	Cap Screw	M8*1.25P*20	3
50	006305-100	Spring Washer	8.2*13.7	22
51	006001-038	Flat Washer	8*16*1.6t	3
52	000102-104	Cap Screw	M5*0.8P*12	12
53	006302-100	Spring Washer	5.1*9.3	9
54	175490-000	Stop Plate		2
55	175353-901	Top Motor Backet		1
56	660220-000	Magnet		1
57	925444-001	Reduce Motor Assembly	1/30HP*100VDC*SJT18AWG*2C	1
57.1	499027-000	Reduce Motor	1/30HP*100VDC*0.45A*47RPM*SJT18AWG *2C	2
57.2	175363-901	Reduce Motor Bracket		1
58	010011-000	Retaining Ring	STW-25	1
59	030201-002	Ball Bearing	6005	1
60	130429-903	Eccentric Wheel		1
61	001901-104	Set Lock Screw	M5*0.8P*12	1
62	010003-000	Retaining Ring	STW-12	2
63	012002-007	Key	4*4*20	1
64	660337-000	Annular Sand Belt	#80(406*1219.2mm)	1
65	000103-108	CAP Screw	M6*1.0P*25	12
66	006303-100	Spring Washer	6.5*10.5	16
67	006001-115	Flat Washer	6.2*13*1.5t	4
68	090414-000	Top Bearing Housing		2
69	030207-002	Ball Bearing	6203	2
70	925362-000	Upper Sand Belt Wheel Assembly		1
71	000003-102	Hex. Screw	M8*1.25P*16	1
72	006001-156	Flat Washer	8.2*40*3.0t	1
73	090410-000	Swing Seat		1
74	030209-000	Ball Bearing	6205	4
75	175360-000	Packing		1
76	420033-000	Double-Sided Tape	3M VHB F-9473 PC(0.25t)	2
77	270091-901	Wear-Resistant Sheet		2
78	090413-000	Bearing Housing		2
79	006001-046	Flat Washer	8.5*16*1.5t	8
80	000104-110	Cap Screw	M8*1.25P*30	8

Index	Part Number	Descriptions	Specifications	QTY
81	925361-001	Lower Sanding Belt Drum Assembly		1
82	012005-006	Key	8*7*16	1
83	130441-903	Claw Type Coupling		2
84	251149-615	Buffer		1
85	001903-105	Set Lock Screw	M8*1.25P*8	5
86	000802-102	Round Head Hes. Screw	M8*1.25P*20	1
87	030101-002	Ball Bearing	608	1
88	361547-000	Central Axis		1
89	280297-901	Spring		1
90	051554-000	Main Column Support Pipe		1
91	130430-903	Anti-Rotation Plate		1
92	175352-901	Pressure Plate		2
93	925364-000	Cam Lever Assembly		1
94	051571-000	Top Seat		1
95	381535-901	Bushing		1
96	175366-000	Photoelectric Switch Support-A		1
97	491294-000	Photoelectric Switch -B	E3Z-T61-L	1
98	000004-103	Hex. Screw	M10*1.5P*30	4
99	006307-100	Spring Washer	10.2*18.5	4
100	006001-069	Flat Washer	10*20*3.0t	4
101	006001-053	Flat Washer	8.5*19*2.0t	4
102	000003-107	Hex. Screw	M8*1.25P*35	4
103	000102-112	Cap Screw	M5*0.8P*25	3
104	051550-000	Front Roller Bracket		1
105	175371-000	Support Plate		1
106	925363-000	Dust Collect Assembly		1
107	251581-615	Upper Auxiliary Dust Collector		1
108	175469-000	Pressure Plate		1
109	006011-025	Flat Washer	6.4*16*1.0t	3
110	175374-000	Chip Bracker		1
112	240102-000	Handwheel	HF-150	1
113	230114-906	Handle		1
114	001903-104	Set Lock Screw	M8*1.25P*10	1
115	130331-903	Lock Nut		1
116	173929-901	Sun Washer		1
117	031005-001	Single DirectionThurst Ball Bearing	51102	2
118	381534-901	Bearing Housing		1
119	010010-000	Retaining Ring	STW-20	2
120	006711-100	Wave Washer	WW-20	1
121	011002-110	Spring Pin	4*16	1
122	000801-104	Round Head Hex. Screw	M6*1.0P*20	2
124	660228-000	Magnetic Ring	40	1
125	006001-191	Flat Washer	21*37*1t	1
126	012004-001	Key	6*6*20	1

Index	Part Number	Descriptions	Specifications	QTY
127	361196-902	Lead Screw		1
128	008006-100	Hex. Nut	M8*1.25P(13B*6.5H)	4
129	190210-000	Spacer		2
130	000003-110	Hex. Screw	M8*1.25P*50	2
131	660338-000	Buffer		2
132	290024-901	Shoulder Screw		2
133	175373-901	Cylinder Rack		2
134	008306-100	Lock Nut	M8*1.25P(13B*9H)	2
135	189502-000	Copper Washer		4
136	000002-105	Hex. Screw	M6*1.0P*25	2
137	008005-100	Hex. Nut	M6*1.0P(10B*5H)	2
138	051549-000	Motor Bracket		1
139	340126-000	PU Plastic Post		1
140	006001-082	Flat Washer	10.5*28*3t	4
141	008308-100	Lock Nut	M10*1.5P(17B*12H)	4
142	901419-001	Motor Assembly	1.75HP*115V*60HZ*1PH*4P	1
142.1	496202-000	Start Capacitor	300MFD/125VAC(LAI)(40*90)	1
142.2	496356-000	Run Capacitor	50UF/300VAC(LAI)(40*85)	1
143	006001-049	Flat Washer	8.5*16*2t	7
144	175377-000	Lifting Detection Bracket		1
146	491202-000	Lifting Detection Substrate	PT3601A*2PCS	1
147	000301-201	Round Head Phillips Screw	M3*0.5P*6	1
148	361549-901	Bolt		4
149	051552-000	Column		1
150	000805-101	Round Head Hex. Screw	M4*0.7P*6	4
151	175372-156	Pointor		1
152	001201-002	Thread Cutting Screw	M4*1.41P*20	4
153	023701-024	Strain Relief	MGB25-18-STB-XA	3
154	251535-000	Cap Screw		1
155	830018-001	Safety Switch	20A125V/12A250VAC*HY7-4P-Y	1
156	020008-000	Strain Relief R-Type	SBR5-2	1
157	453011-049	Power Cord	SJT 14AWG*3C*2600mm(115V)	1
158	020003-000	Strain Relief R-Type	SB7R-3	1
159	001603-102	Round Head Phillips Screw w/Flat Washer	M6*1.0P*10/6*13.2*1.0t	4
160	251539-615	Rear Control Box		1
161	950973-000	Front control Box Assembly	115V	1
161.01	491288-000	Illuminated Push Button switch	NLB22-D11WE(100-120V)	1
161.02	491256-000	Emergency Stop Switch	NPB22-H11R(600V/10A)-1a1b	1
161.03	575902-000	Control Plate Label		1
161.04	230389-615	Speed Knob		1
161.05	576182-000	DRO Label	OLIVER(SST)	1
161.06	251538-615	Control Box		1
161.07	001202-605	Thread Cutting Screw	M3*1.06P*8	4

Index	Part Number	Descriptions	Specifications	QTY
161.08	491292-001	Dual DC Driver Board	110/220V	1
161.09	471044-038	Connection Cord	14AWG*1C*150mm E1/Black/L2	1
161.12	471044-041	Connection Cord	14AWG*1C*200mm X1/Black/E2	1
161.13	471044-042	Connection Cord	14AWG*1C*250mm X2/White/N2	1
161.14	472048-026	Connection Cord	24AWG*2C*300mm	1
161.15	474048-024	Connection Cord	24AWG*4C*300mm	1
162	660336-000	Sand Conveyor Belt	#100(380*1212.9mm)	1
163	361546-905	Driven Conveyor Wheel Shaft		1
164	160087-000	Copper Bushing		3
165	130327-903	Driven Shaft Seat		2
166	280242-902	Pressure Spring		2
167	006003-075	Flat Washer	10.3*22*2.0t	2
168	361198-901	Support Rod		2
169	381310-901	Adjustment Bolt		2
170	090289-000	Adjustment Seat		2
171	000804-107	Round Head Hex. Screw	M5*0.8P*12	4
172	010001-000	Retaining Ring	STW-10	2
173	924183-000	Guide Block Assembly		2
174	000104-117	Cap Screw	M8*1.25P*70	1
175	280243-902	Pressure Spring		1
176	000303-803	Round Head Phillips Screw	M5*0.8P*10	4
177	175370-901	Limit Plate		1
178	000104-114	Cap Screw	M8*1.25P*50	2
179	051553-000	Conveyor Rack		1
180	000102-116	Cap Screw	M5*0.8P*15	1
181	130328-903	Active Shaft Seat -R		1
182	361551-905	Active Conveyor Shaft		1
183	251580-615	Lower Auxiliary Dust Collector		1
185	001801-102	Extension Wing	M5*0.8P*12/5.1*9.3*1.3t	2
186	175369-905	Extension Wing Bracket-B		2
187	175368-905	Extension Wing Bracket-A		2
188	175367-905	Cap w/Spring Washer w/Flat Washer		2
190	000802-101	Round Head Hex. Screw	M8*1.25P*16	8
191	175359-901	Hook		4
192	031001-002	Single DirectionThurst Ball Bearing	51101	1
193	190336-901	Bushing		1
194	130332-903	Adjustment Wheel		1
195	130330-903	Micro Adjustment Seat		1
196	000103-103	Cap Screw	M6*1.0P*12	2
197	003905-201	Wood Screw	1/4”-20NC-1”	4
198	006003-114	Flat Washer	6.4*16*1.6t	2
199	006001-023	Flat Washer	6.3*13*2.0t	14
200	090411-000	Base		1

Index	Part Number	Descriptions	Specifications	QTY
201	190337-000	Base Connecting Tube		2
202	361555-901	Bushing		2
203	290031-902	Shoulder Screw		2
204	000302-203	Round Head Phillips Screw	M4*0.7P*10	2
205	006002-001	Flat Washer	4.3*10*1.0t	2
206	021103-100	Cable Clip	ACC-3-B	2
207	000104-108	Cap Screw	M8*1.25P*25	4
208	090412-000	Column Base		1
209	340147-615	Rubber Pad		1
210	000304-102	Round Head Phillips Screw	M6*1.0P*10	2
212	021104-000	Cable Clip	ACC-5	3
213	576015-000	Upper Matte		2
214	576014-000	Lower Matte		2
215	002504-102	Round Head Hex. Lock Screw	M4*0.7P*6	8
216	000805-102	Round Head Hex Screw	M4*0.7P*10	5
217	008301-100	Lock Nut	M4*0.7P(7B*5H)	5
218	730063-008	Roll-up ProtectionTape	KS-10BK(450mm)	1
219	006502-100	Teeth Washer	5.3*10(BW-5)	2
220	021010-000	Cable Tie	ALT-150M-B	5
221	001904-104	Set Lock Screw	M4*0.7P*8	2
230	042620-021	Air Hose	1”*680mm	1
240	473003-074	Motor Cord	SJT14AWG*3C*900mm	1
241	471044-039	Connection Cord	14AWG*1C*900mm AC1/Black/L1	1
242	471044-040	Connection Cord	14AWG*1C*900mm AC2/White/N1	1
243	474048-025	Connection Cord	24AWG*4C*650mm	1
244	473048-013	Connection Cord	24AWG*3C*850mm	1
245	473048-014	Connection Cord	24AWG*3C*900mm	1

Maintenance Record

Date	Task	Operator

Notes

Warranty and Service Policy

Limited Warranty
Oliver Machinery ("Oliver") warrants to the original purchaser that its products will be free from defects in materials and workmanship under normal use and service for a period of two (2) years from the date of purchase by the original customer.

Motors, electronic components, and electrical systems—including but not limited to variable frequency drives (VFDs), circuit boards, switches, sensors, and controllers—are warranted for a period of one (1) year from the date of purchase.

This warranty applies only to the original purchaser and is not transferable.

Oliver's sole obligation under this warranty shall be, at its option, to repair or replace any product, component, or part determined by Oliver to be defective in material or workmanship.

Replacement parts may be new or refurbished components of equal performance.

Warranty Coverage
This warranty covers defects in materials and workmanship occurring under normal operating conditions and proper maintenance.

Unless otherwise agreed in writing, warranty coverage includes replacement parts only. Labor, service travel, installation, and diagnostic costs are not included unless specifically authorized by Oliver in writing.

Items Not Covered
This warranty does not cover the following:

- Normal wear and consumable items, including but not limited to:
  - Belts
  - Blades
  - Cutters
  - Sanding media
  - Brushes
  - Bearings subject to normal wear
  - Lubricants and filters
- Damage resulting from:
  - Misuse or abuse
  - Negligence
  - Improper installation
  - Operation outside recommended specifications
  - Lack of routine maintenance
  - Unauthorized modifications or repairs
  - Use of non-approved parts or accessories
  - Electrical supply issues including power surges, improper voltage, or phase imbalance
  - Accidents, fire, flood, or other acts of nature
  - Cosmetic damage that does not affect machine operation
- Freight damage occurring during shipping – see below:
  Freight damage must be reported directly to the transport carrier immediately at the time of delivery and must be noted on the signed copy of the delivery Bill of Lading (BOL) paperwork otherwise a freight claim may not be claimed.

Warranty Claim Procedure
To obtain warranty service, the customer must:

1. Contact Oliver Machinery technical support at **800-559-5065** or submit a warranty request through https://olivermachinery.net/warranty
2. Provide:
    - Proof of purchase
    - Machine model number
    - Serial number
    - Description of the issue
    - Supporting photos or videos if requested

Oliver may require troubleshooting steps prior to authorizing replacement parts.

Warranty parts will be shipped using standard ground shipping methods. Expedited shipping may be requested by the customer at additional cost.

Oliver reserves the right to require the return of defective parts for inspection before issuing warranty replacements.

Limitation of Liability
To the fullest extent permitted by law, Oliver Machinery shall not be liable for any indirect, incidental, special, or consequential damages, including but not limited to:

- Loss of production
- Loss of profits
- Business interruption
- Installation or removal costs
- Loss of use of equipment

Oliver's total liability under this warranty shall not exceed the original purchase price of the product.

Disclaimer of Other Warranties
Except for the limited warranty expressly stated above, Oliver Machinery disclaims all other warranties, express or implied, including but not limited to:

- the implied warranty of merchantability
- the implied warranty of fitness for a particular purpose

Some jurisdictions do not allow limitations on implied warranties, so certain limitations may not apply in those areas.

Product Safety
All Oliver Machinery equipment must be installed, operated, and maintained in accordance with the owner's manual and applicable safety standards.

Removal or modification of safety devices, guards, or electrical systems will void this warranty.

Product Changes
Oliver Machinery reserves the right to improve, modify, or change product designs and specifications without obligation to retrofit previously manufactured equipment.

Governing Law
This warranty shall be governed by and interpreted in accordance with the laws of the State of Washington, United States.

Customer Support
For questions regarding warranty coverage, service, or replacement parts, please contact:

Oliver Machinery

Phone: **800-559-5065**
Email: **info@olivermachinery.net**
Website: **www.olivermachinery.net**

Oliver Machinery is always adding new Industrial Woodworking products to the line.

For complete, up-to-date product information, visit us online at:

WWW.OLIVERMACHINERY.NET

or call toll free 1-800-559-5065

** CHECK ONLINE FOR UPDATED MANUALS. **

** SAVE THIS MANUAL FOR FUTURE REFERENCE. **