

Sander

# Model 6905

Owner's Manual

For Models Manufactured Since 11/2017



**SAFETY INSTRUCTIONS**

1. Read the manual & manual completely before operating the sander.
2. Disconnect from power prior to changing sandpaper and wheels or removing all adjustments of repairs, lock prior to operation.
3. Adjust sandpaper disk extension to the machine and wear a dust protection mask.
4. Always wear eye protection when operating the sander.
5. Keep sand disk contained and do not wear loose clothing or other items that could become caught in the machine during operation.
6. This machine is intended for use with sand and wood shavings only.
7. Follow all safety warnings and instructions on the manual and comply with these warnings and instructions on the manual.



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

info@olivermachinery.net

Stock Number: 6905.001  
Manual Version: 2.0.2





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

**FOLLOW THE INSTRUCTIONS AND THINK SAFETY!**

**THE OWNER OF THIS MACHINE IS SOLELY RESPONSIBLE FOR THE SAFETY OF ANYONE USING THIS MACHINE. SUCH RESPONSIBILITY INCLUDES BUT NOT LIMITED TO:**

- **PROPER ASSEMBLY, OPERATION, INSPECTION, MAINTENANCE, AND RELOCATION OF THE MACHINE.**
- **PROPER TRAINING FOR THE OPERATORS AND ENSURES THIS MANUAL IS AVAILABLE AT ALL TIMES.**
- **USAGE AUTHORIZATION.**
- **USAGE OF SAFETY AND PROTECTION DEVICE.**

**OLIVER MACHINERY DISCLAIMS ANY LIABILITY FOR MACHINES THAT HAVE BEEN ALTERED OR ABUSED. OLIVER MACHINERY RESERVES THE RIGHT TO EFFECT AT ANY TIME, WITHOUT PRIOR NOTICE, THOSE ALTERATIONS TO PARTS, FITTINGS, AND ACCESSORY EQUIPMENT WHICH THEY MAY DEEM NECESSARY FOR ANY REASON WHATSOEVER.**

**\*\* SAVE THIS MANUAL FOR FUTURE REFERENCES. \*\***

## **PROP 65 NOTICE**

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

Some examples of these chemicals are:

- 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/or other safety devices for personal protection.

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

## Table of Contents

<b>Introduction</b> .....	<b>5</b>	<b>Dust Collection</b> .....	<b>20</b>
<b>Specifications</b> .....	<b>6</b>	<b>Operation</b> .....	<b>21</b>
<b>Identification</b> .....	<b>8</b>	<b>Preparation before Sanding</b> .....	<b>21</b>
<b>Safety</b> .....	<b>10</b>	Material Selection and Inspection .....	21
<b>General Safety Guidelines</b> .....	<b>10</b>	Supporting Large Workpiece.....	21
<b>Safety Guidelines Specific to Sander</b> .....	<b>11</b>	Safety Devices .....	21
<b>Electricals</b> .....	<b>13</b>	Clear the Work Area.....	21
<b>Minimum Circuit Size Required for Model</b>		<b>Table Tilt Adjustment</b> .....	<b>22</b>
<b>6905 Sander</b> .....	<b>13</b>	<b>90° Sanding</b> .....	<b>23</b>
<b>Grounding</b> .....	<b>13</b>	<b>Bevel Sanding</b> .....	<b>23</b>
<b>Indoor Use Only</b> .....	<b>13</b>	<b>Accessories</b> .....	<b>24</b>
<b>Electrical Wiring</b> .....	<b>14</b>	<b>Maintenance</b> .....	<b>25</b>
<b>Setup</b> .....	<b>15</b>	<b>Changing Sanding Sleeves</b> .....	<b>26</b>
<b>Shop Preparation</b> .....	<b>15</b>	<b>Table Angle Stop Bolt Adjustment</b> .....	<b>27</b>
<b>Receiving</b> .....	<b>16</b>	<b>Troubleshooting</b> .....	<b>28</b>
<b>Inventory</b> .....	<b>17</b>	<b>Wiring Diagram</b> .....	<b>30</b>
<b>Cleaning</b> .....	<b>18</b>	<b>Parts List</b> .....	<b>31</b>
<b>Sanding Sleeves Installation</b> .....	<b>18</b>	<b>Maintenance Record</b> .....	<b>35</b>
<b>Sanding Spindle Installation / Removal</b> .....	<b>19</b>	<b>Notes</b> .....	<b>36</b>
<b>Spindle and Table Insert Storage</b> .....	<b>20</b>	<b>Warranty and Service</b> .....	<b>37</b>
<b>Power Switch Assembly</b> .....	<b>20</b>		

---

# Introduction

Thank you for choosing Oliver! This manual contains important information on how to safely set up, operate, and maintain this machine. Please take the time to read through this manual, and make sure you understand all instructions.

While this manual may provide tips on optimizing the result of your workpiece, the manual is not intended as a substitute for formal woodworking training. If you need to know how to safely complete a woodworking task, please consult knowledgeable and qualified sources before proceeding further.

We made every effort to keep this manual up-to-date. Instructions, specifications, drawings, and photographs in this manual should match the machine delivered. If you find any differences or anything that seems confusing in this manual, please check our website for an updated version:

## WWW.OLIVERMACHINERY.NET/MANUALS

Alternatively, you can contact our technical support for help:

**1-800-559-5065**

Before calling, please note down the manufacture date and the serial number of the machine. You can find the information on a nameplate located on the back of the machine cabinet. This information is needed to provide proper technical support, and to determine if an updated manual is available for your machine.

Please let us know how well this manual serves you. If you have any suggestions, please call the number above or email us at:

**info@olivermachinery.net**

We love to hear from our customers and make improvements.



# Specifications

## Quick View

Model	6905 Sander
Stock Number	6905.001
Power Requirement	115V, 1Ph, 60Hz
Motor	TEFC 0.5HP, 115V, 1Ph
Spindle Sizes	1/4", 1/2", 5/8" 1-1/2", 2"
Spindle Speed	1720 RPM
Oscillation Stroke Length	15/16"
Table Dimensions	14-3/4"(W) x 14-3/4"(D)
Table Tilt Angle	0° - 45°
Dimensions	14-3/4"(W) x 14-3/4"(D) x 18-1/4"(H)
Footprint	14-1/4"(W) x 14-1/2"(D)
Fully Assembled Weight	75 lbs.
Warranty	1 Year (Motor and electronics) 2 Years (All other parts)

## Product Dimensions

Width x Depth x Height (Fully Assembled)	14-3/4"(W) x 14-3/4"(D) x 18-1/4"(H)
Footprint	14-1/4" (W) x 14-1/2"(D)
Fully Assembled Weight	75 lbs.

## Shipment Info

Packaging	Cardboard Box
Content	Sander with Included Accessories
Dimensions	17"(L) x 17"(W) x 21"(H)
Weight	80 lbs.
Approx. Assembly Time	15 Minutes
Must Ship Upright	YES
Stackable	YES

## Electricals

Power Requirement	115V, 1Ph, 60Hz
Prewired Voltage	115V
Full Load Current Rating	7.5A @ 115V
Recommended circuit size	15A @ 115V
Power Switch Type	Paddle Switch with Childproof Lock Pin
Connection Type	NEMA 5-15 Plug with 5' 18AWG Cord

### *Motor*

Motor Type	TEFC
Horsepower	0.5HP
Power Requirement	115V, 1Ph, 60Hz
Full Load Current Rating	7.5A @ 115V
Speed	1720 RPM
Power Transfer Mechanism	Direct Drive
Bearing type	Permanently Sealed Ball Bearing

### *Sanding Spindles*

Height	6"
Sizes	1/4", 1/2", 5/8" 1-1/2", 2"
Optional Spindle Size Available	3"
Speed	1720 RPM
Oscillation Stroke Length	15/16"
Oscillations Per Minute	30

### *Table*

Material	Precision Ground Cast Iron
Dimensions	14-3/4"(W) x 14-3/4"(D)
Tilt Angle	0° - 45°
Number of Table Inserts	2 for 90° Sanding 2 for Bevel Sanding

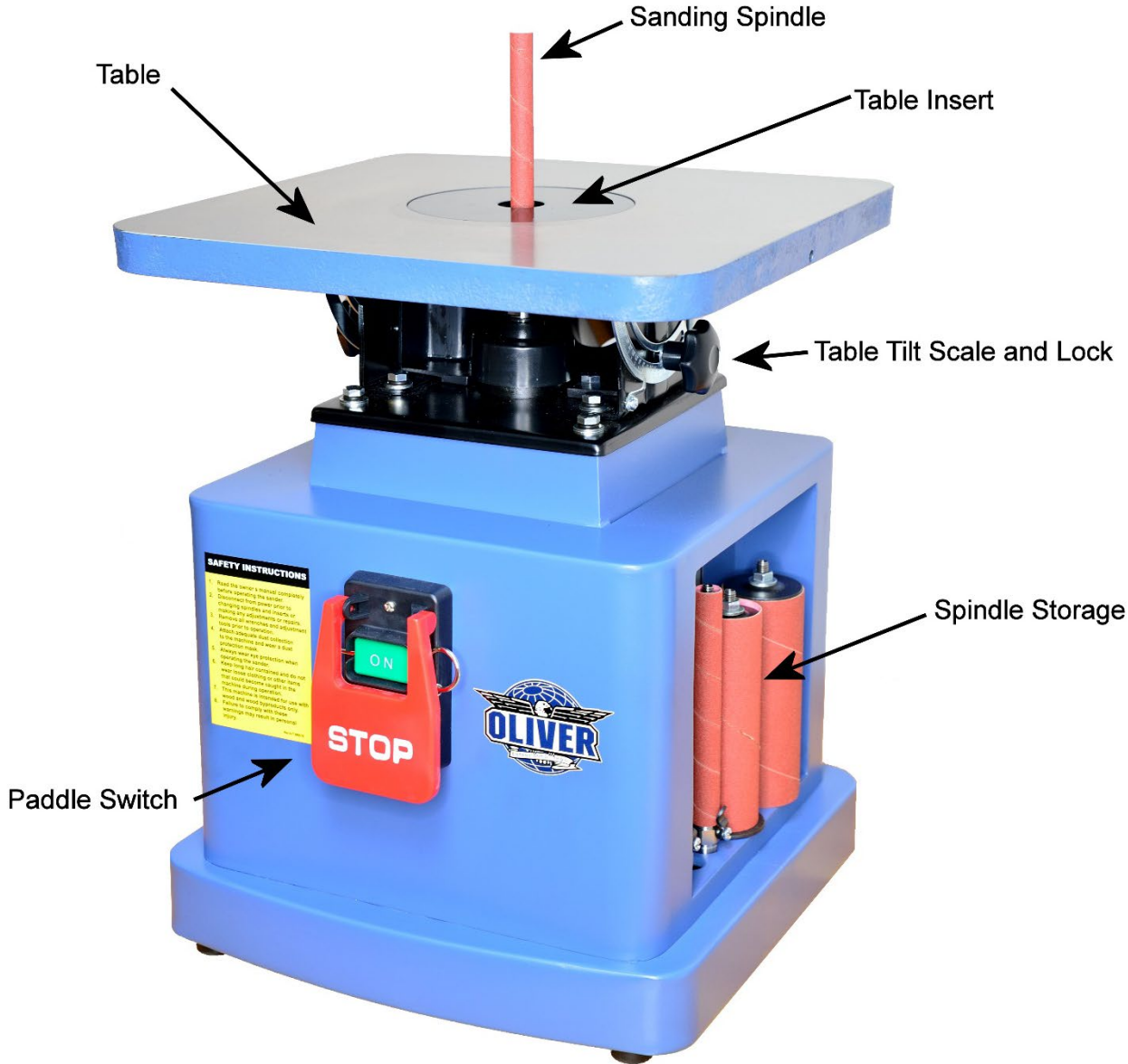
### *Safety*

Number of Dust Ports	1
Dust Port Size	2"
Minimum CFM Required	300 CFM
Sound Rating @ 2' distance	70 dB

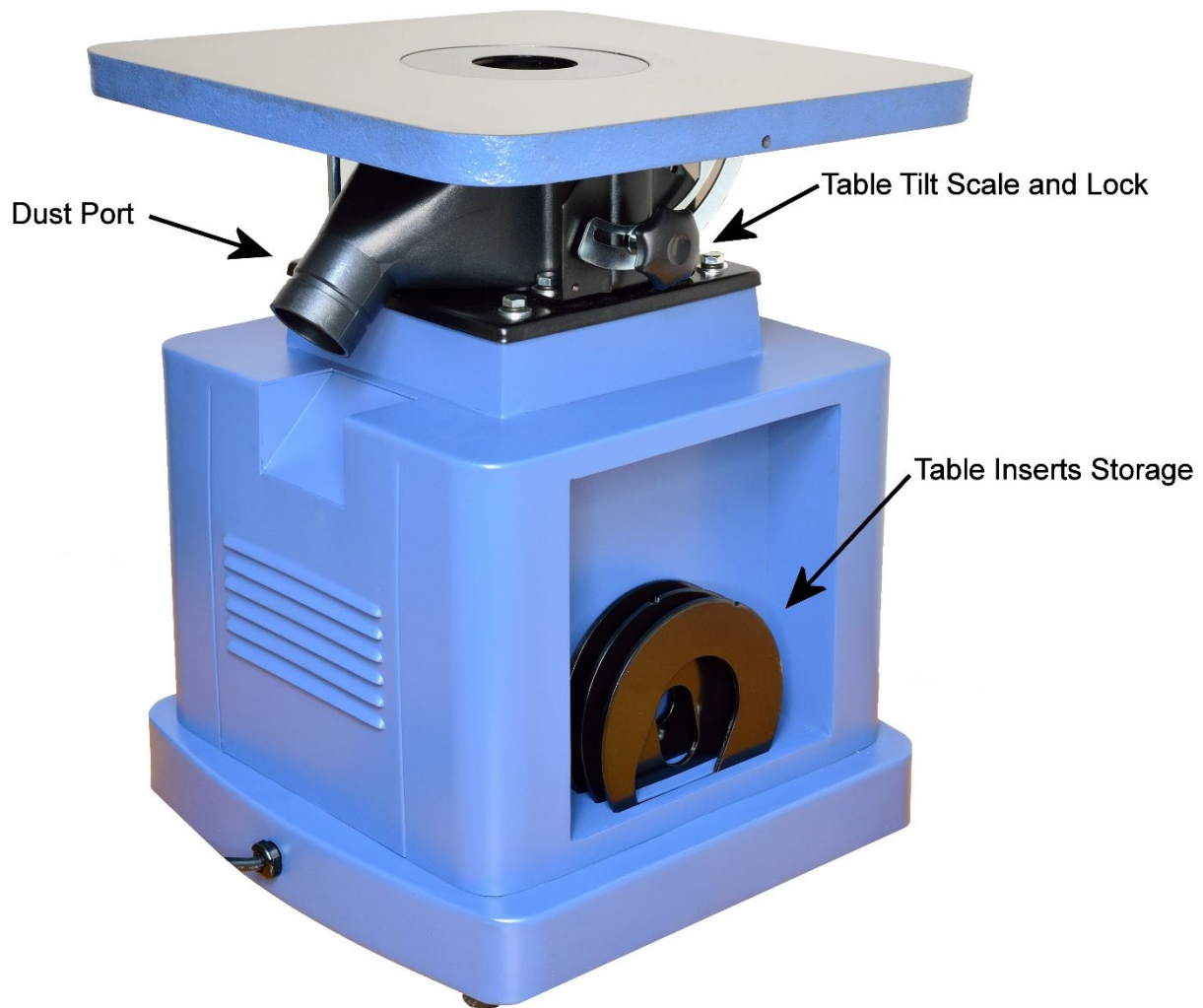
### *Others*

Serial Number Location	On the right-hand side of the machine stand.
Certification	CSA 175381
Country of Origin	Taiwan

# Identification










# Safety

Oliver Machinery has made every attempt to provide a safe, reliable, easy-to-use piece of machinery. Safety, however, is ultimately depending on the individual machine operator. **Before operating this machine, please become familiar with the following safety labels and guidelines.**

 <b>DANGER</b>	This indicates an imminently hazardous situation which, if not avoided, <b>WILL</b> cause death or serious injury.
 <b>WARNING</b>	This means if the warning is not taken seriously, it <b>CAN</b> cause death or serious injury.
 <b>CAUTION</b>	This means if the precaution is not taken, it <b>MAY</b> cause minor or moderate injury.
<b>IMPORTANT</b>	This is a tip for properly operating the machine to avoid machine damage.

## General Safety Guidelines

1. **FAMILIARIZE** yourself with all safety instructions found in this manual. Know the limitations and hazards associated with this machine. Do not operate or service this machine until you are properly trained.
2. **ELECTRICAL GROUNDING**, when done properly, reduce the risk of electrocution, shocks, and fire. Make certain that the machine frame is electrically grounded and that a ground lead is included in the incoming electrical service. In cases where a cord and a plug are used, make certain that the grounding plug connects to a suitable ground. Follow the grounding procedure indicated in the electrical code of your area.
3. **DISCONNECT** the machine from power before performing any service, maintenance, adjustments, or when changing cutters. A machine under repair should be RED TAGGED to show it should not be used until the maintenance is complete.
4. **EYE PROTECTION**: Always wear an approved safety face shield, goggles, or glasses that complies with ANSI Z87.1 and CSA Z94.3 standards. Common eyeglasses are not safety glasses, and may not provide adequate protection.
5. **EAR PROTECTION**: Use hearing protective devices where the noise exceeds the level of exposure allowed in Section 1910.95 of the OSHA Regulations. When in doubt, use it.
6. **GUARDS**: Keep machine guards in place for all applicable operations. If any guards are removed for maintenance, DO NOT OPERATE the machine until all guards are reinstalled. Check clearance between the guards and the cutter before starting the machine.
7. **WORKPLACE SAFETY**: Keep the floor around the machine clean. Scrap material, sawdust, oil, and other liquids increase the risk of tripping or slipping. Be sure to clean up the table before starting the machine. Make certain the work area is well lighted and that a dust collection system is available to minimize dust. Use anti-skid floor strips on the floor area where the operator normally stands and mark off the machine work area. Provide adequate workspace around the machine.

8. **ACCESS CONTROL** should be enforced so only trained personnel can access the work area and operate the machine. Use a childproof power switch when applicable.
9. **STAY ALERT** at all times. Do not operate this machine while under the influence of drugs/alcohol, or when not feeling well.
10. **NEVER STAND ON THE MACHINE.** This prevents injuries from tipping related accidents and accidental contacts with cutters.
11. **REPLACEMENT PARTS:** Use only genuine Oliver Machinery replacement parts and accessories recommended for this machine. Generic parts made by other manufacturers may create a safety hazard and WILL void the factory warranty and other guarantees.
12. **PROPER USE:** Do not use this machine for anything other than its intended use. 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.
13. **ADDITIONAL SAFETY INFORMATION:**
  - National Safety Council – *Accident Prevention Manual for Business and Industry*: <https://shop.nsc.org/apm-admin-program-14ed>
  - ANSI O1.1: <https://webstore.ansi.org/standards/wmma/ansio12013>
  - OSHA 1910.213: <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.213>

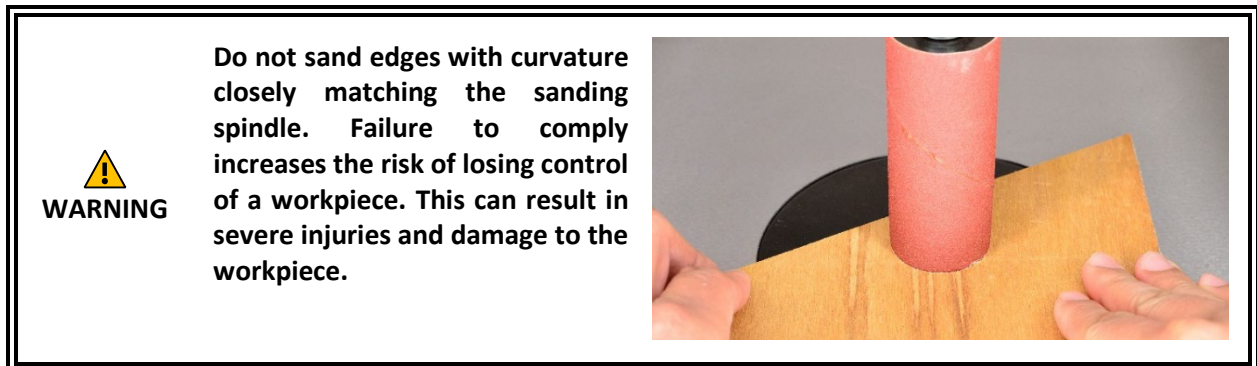
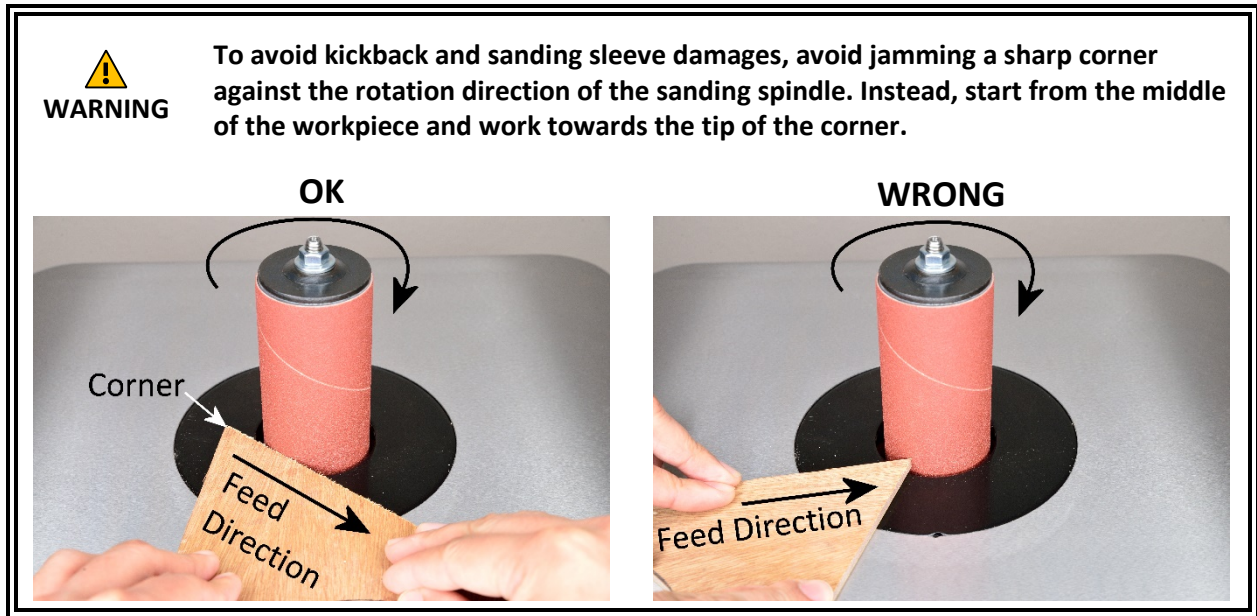
## Safety Guidelines Specific to Sander

### Before Work Begins:

1. Inspect the sanding sleeve for signs of failure. Clean clogged sanding sleeve with abrasive cleaning stick. Replace damaged, overstretched, or worn sanding sleeves.
2. Ensure the sanding sleeve is held securely on the spindle. If the sleeve has lost grip on the spindle, refer to the section “Changing Sanding Sleeves” on page 26 to secure the sanding sleeve.
3. Inspect the workpiece. Do not process workpieces with loose parts and/or containing dangerous chemicals. Do not sand wood with high moisture content.
4. Remove and confine any personal belongings that can get caught and entangled with the spindle. Remove tie, rings, watch, and other jewelry. Roll up sleeves above the elbows. Remove all loose outer clothing and confine long hair. Do not wear gloves while sanding. Wear protective footwear.
5. Use a correctly sized table insert to minimize the gap between the spindle and the insert.
6. Sanding creates a lot of dust. Connect this sander to a dust collection system and wear a high-quality dust mask.

## When Sanding:


1. Maintain control of the workpiece:
  - Feed the workpiece against the rotation direction of the spindle.
  - Hold the workpiece firmly with both hands and apply light pressure against the sanding spindle.
  - Use the table to support the workpiece.
2. Keep hands away from the gap between the sanding spindle and the table. Use special jigs to hold down small workpieces as needed.



## After Operation

1. STOP THE MACHINE when the operator leaves the machine for any reason.
2. WAIT until the motor comes to a complete stop.
3. CLEAN UP before departure.

# Electricals

 <b>WARNING</b> All electrical work must be done by a qualified electrician and must meet the electrical code in your area.
--

## Minimum Circuit Size Required for Model 6905 Sander

Stock Number	Voltage	Minimum Circuit Size Required
6905.001	115V	15A

Please ensure the electrical circuit for this machine meets the minimum circuit size requirement. The minimum circuit size requirement applies to a dedicated circuit that provides power to one 6905 Sander. If more machines are sharing the same circuit, consult a qualified electrician to ensure the designated circuit is properly sized for safe operation.

If a circuit is available, but not meeting the minimum circuit size requirement listed above, a new circuit must be installed for this machine.

## Grounding

 <b>WARNING</b> Improper grounding can cause electric shock, fire, and equipment damage.
--

Proper grounding reduces the risk to the operator in the event of electrical malfunction or breakdown. This machine must be connected to the grounding conductor when available, and all grounding connections must meet or exceed the electrical code requirements in your area. Furthermore, all grounds must be verified and must meet or exceed the electrical requirement of the machine. If grounding is not available, consider the use of a GFCI protection device as an alternative, if this complies with the electric code in your area.

## Indoor Use Only

This machine is designed for indoor use only. Operating this machine outdoor increases its exposure to moisture, which in turn increases the risk of electric shock.

## Electrical Wiring

This machine is pre-wired for 115V, with a cord and a NEMA 5-15 plug. Use of extension cord is not recommended. If you need to use an extension cord to connect to a power source, select a durable cord type with a high-temperature rating (90C° or above). Use the minimum amount of extension cord as needed.

### Minimum cord size (AWG) required based on amperage draw and length of the cord:

<i>Amps</i>	<b>Power Cord Length</b>			
	25 feet	50 feet	75 feet	100 feet
<i>5 to 8</i>	14	14	14	12
<i>8 to 12</i>	14	14	12	10
<i>12 to 15</i>	12	12	10	10
<i>15 to 20</i>	10	10	10	NR
<i>21 to 30</i>	10	NR	NR	NR

\*NR: Not Recommended



**Use properly sized wires that meet or exceed the power requirement of your machine. Using undersized wires may cause overheating and increase the risk of fire and machine damage.**

# Setup

## Shop Preparation

### Space Requirement

The dimensions of this machine are 14-3/4"(L) x 14-3/4"(W). You will need additional space for manipulating your workpiece, electrical connection, and dust collection.

### Tool Stand Load Limits

This machine has a shipping weight of 80 lbs., and a net weight of 75 lbs. Ensure the tool stand is built to support the weight of the sander and other items for the operation.

### Tool Stand Height

The height of the tool stand should allow the operator to comfortably manipulate the workpiece.

### Electricals

Make sure a properly sized circuit and electrical outlet are available near the machine. Please refer to section "Electricals" on page 13 for details regarding electrical requirements.

### Lighting

Adequate lighting is needed for operating this machine. Overhead, non-glare lighting should be installed.

### Safety Labels

If this machine introduces a new safety hazard to your workplace. Please display proper warning signs in a highly visible location(s).

### Dust Collection

Wood dust created by this sander is a health hazard. 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 wood dust is effectively removed.



**Air resistance and leakage in a dust collection system impact its effectiveness. Use a dust collection system that is rated above 300 CFM at the dust port. Doing so improves air quality in the workplace, and prevents the machine from jamming.**

## Receiving

Your shipment should come in one box. Upon receiving your shipment, check for any significant damages before signing the delivery confirmation.

### **IMPORTANT**

If items are damaged, please call us immediately at **1-800-559-5065**



Always wear safety goggles and gloves before removing the straps. Straps may spring back violently when released and cause injury.

## Moving Machine into the Shop

On the day of delivery, please be sure help is available to move the machine to its final location.



6905 Sander has a gross weight of 80 lbs. and a net weight of 75 lbs.

Safe moving techniques and proper lifting equipment are required, or serious personal injury may occur.



Your machine may be secured by the straps. Do not lift your shipment by the strap. 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

You should find the sander assembly and other parts packed inside the box.





## Inventory

Carefully unwrap the packaging and make sure all components are included in the shipment. Lay out all items received and inventory them.

### Package 1 – Sanding Spindles and Sleeves (2", 1-1/2" 5/8", 1/2", 1/4")



### Package 2 – Table Inserts

This sander comes with four table inserts. One is already installed on the table.



### Package 3 – 4" Duct Adapter, Power Switch Paddle, Childproof Safety Pin



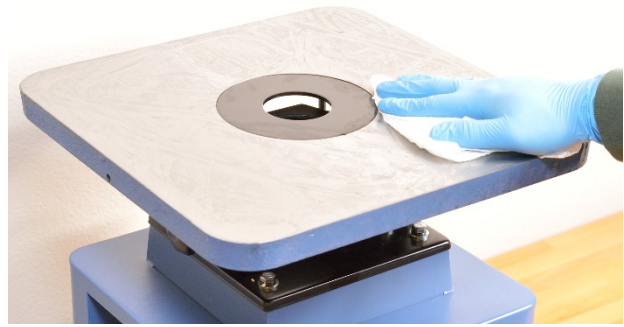
### Package 4 – Wrenches

- 14/17mm Wrenches (2x)
- 10/12mm Wrench (1x)

## Cleaning

To prevent rusting during shipment, the unpainted cast iron tabletop is covered with rust protectant and plastic film. Remove the plastic film and wipe off rust protectant with paper towels.

Once all rust protectant is removed, routinely coat the tabletop with rust preventive such as Boeshield® T-9 or paste wax. Do not use rust preventives that contain silicone, which is known to interfere with certain finishes and glues.

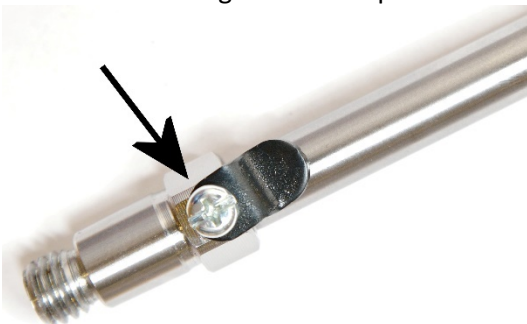


The smaller spindles that come with the sander are also covered in machine oil. Wipe off the machine oil before installing the sanding sleeves into the spindles.

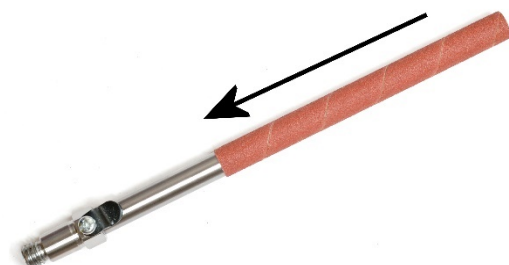


## Sanding Sleeves Installation

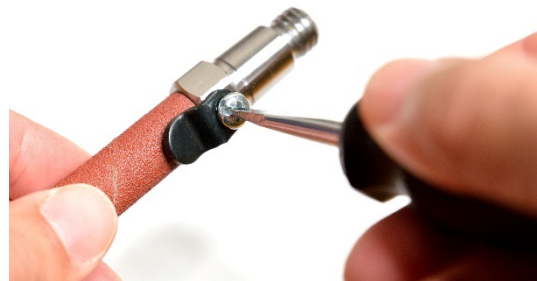
1. Loosen the sanding sleeve clamp screw.



2. Push the sanding sleeves into the spindle. New sanding sleeves can be a bit tight. Lightly tap it into the spindle as needed.



3. Retighten the sanding sleeve clamp screw to secure the sanding sleeve.



4. Try pulling the sanding sleeve away from the spindle to make sure it is securely mounted onto the spindle.

## Sanding Spindle Installation / Removal

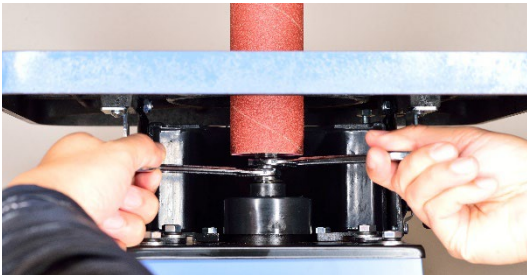
1. **Disconnect sander from the power source!!**
2. Gather a pair of 17mm wrenches and remove the table insert.



3. Thread the spindle counterclockwise into the quill.



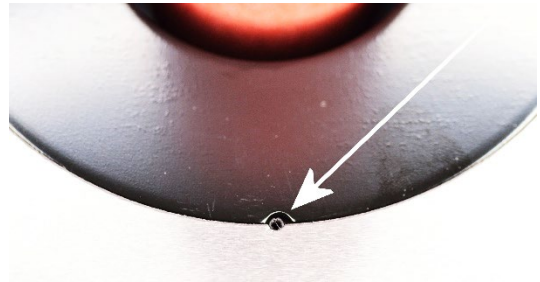
4. With one wrench holding the quill in place, tighten the spindle with another wrench by another 1/8 of a turn counterclockwise.



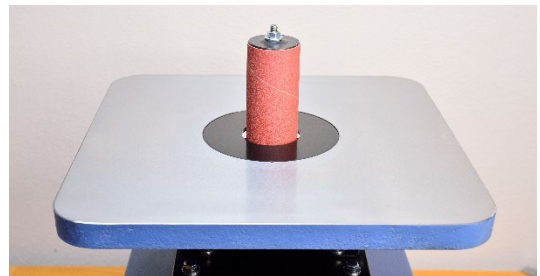
### IMPORTANT

The reverse-threaded spindle is self-tightening. Do not overtighten the spindle or the spindle can be difficult to remove later on.

5. Re-install the table insert. Choose an insert that creates the smallest gap. Make sure the notch on the outer edge of the insert aligns with the pin on the table opening.



6. Clear the table before turning on the sander.



### To Remove the Spindle

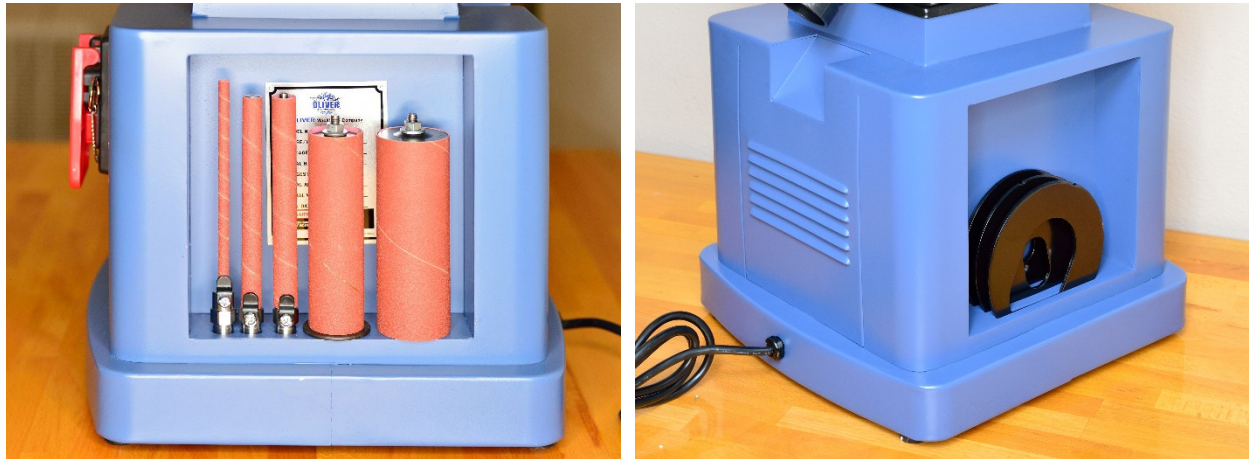
1. **Disconnect sander from the power source!!**
2. With one wrench holding the quill in place, rotate the spindle clockwise to loosen it from the quill.
3. Continue to rotate the spindle clockwise by hand until the spindle breaks apart from the quill.

### IMPORTANT

Remove the spindle after each use and keep the machine in a dry place. The spindle can bind to the quill if rust forms.

## Spindle and Table Insert Storage

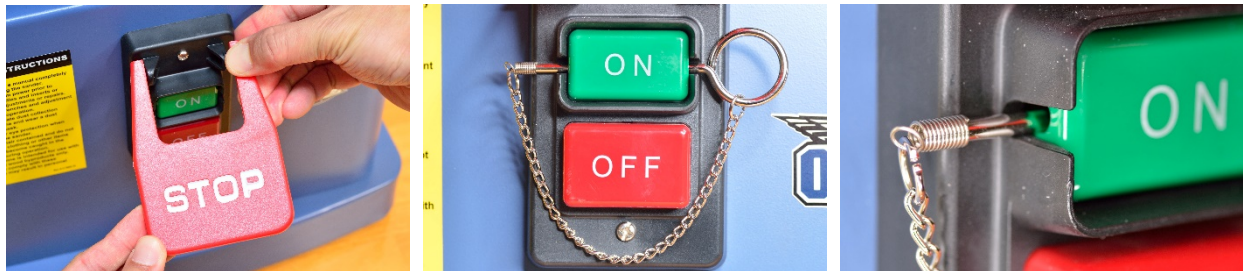
Store the spindles and table inserts in the storage areas when they are not in use.



## Power Switch Assembly

This sander is equipped with a paddle switch. Install the paddle before turning on the machine.

This switch also comes with a safety pin to prevent the sander from turning on by accident. Insert the pin through the "ON" button, then secure the pin with the spring located at end of the chain.

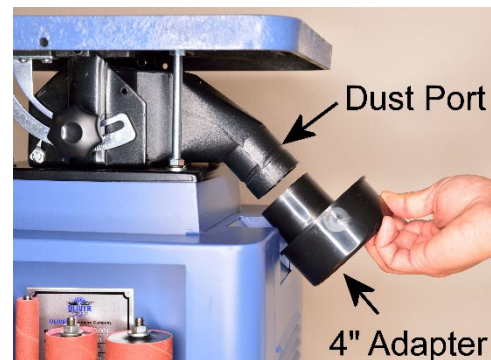


## Dust Collection

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

The minimum CFM requirement for this sander is 300 CFM at the dust port, which means the dust collection system should have a rating greater than 300 CFM, as air friction and leakage can reduce the effective CFM at the dust port.

This sander also comes with a 4" adapter which is compatible with any standard 4" dust collector hose.



### **IMPORTANT**

**Running this sander without a dust collection system, or using a dust collection system with inadequate suction may damage the machine and cause other hazardous situations. Check your dust collection system regularly to make sure it is not jammed or filled up.**

# Operation

## Preparation before Sanding

### Material Selection and Inspection

This machine is primarily designed for sanding good quality natural wood materials. Avoid cracked stock and boards with loose knots that can break apart and cause severe injuries. Using this sander for other material types may damage the sanding sleeve or shorten its lifespan, and may cause other 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 will spread dust that contains such 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 sleeve. Clean the workpiece with a stiff brush as needed.

Glue on the workpiece can gum up the sanding sleeve. Scrape off all excess glue before sanding.

The bottom of the workpiece should be flat so it can be pushed firmly against the table for feeding. If a workpiece does not have a flat bottom, it should be handled with a special jig so it can be fed steadily against the sanding spindle.

### Supporting Large Workpiece

Supporting large workpieces with an auxiliary table to avoid injuries and to create a consistent finish.

### Safety Devices

To reduce the chance of a workpiece getting pulled out of your hand, and to avoid accidental contact of the moving sanding spindle, use a special jig/hold-down in these situations:

1. If the operator cannot safely feed the workpiece by keeping the hands at least 2" away from the spindle.
2. The workpiece has an odd shape that cannot be fed by hand securely/steadily.

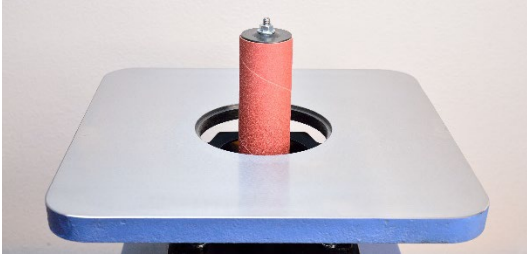
Always wear high-quality dust masks when operating the sander.

### Clear the Work Area

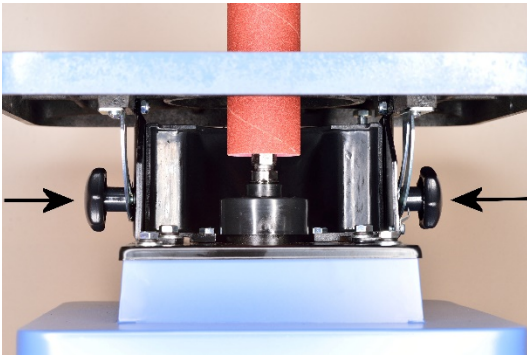
Before turning on the sander, make sure the sander table is free of debris, and the workpiece is not engaging the spindle.

## Table Tilt Adjustment

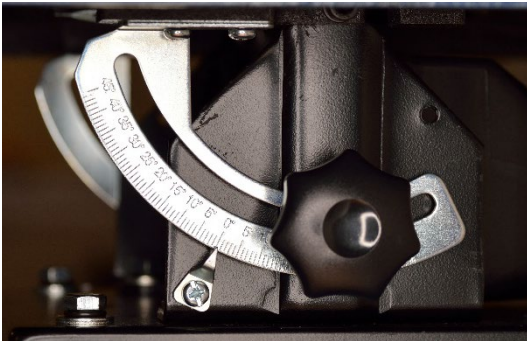
1. **Disconnect sander from the power source!!**
2. Remove the table insert.



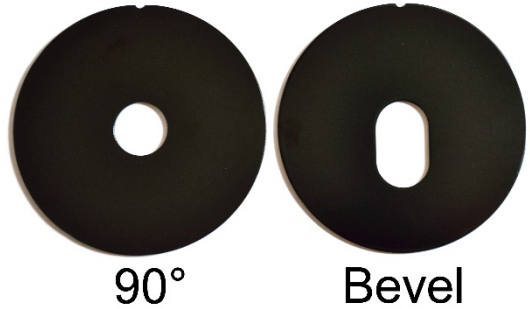
3. Loosen the table tilt lock on both sides of the machine.



4. Use the table tilt scale for setting the tilt angle.



5. When the adjustment is done, tighten both lock knobs.
6. Install a table insert. To minimize the gap between the spindle and the insert, select the insert with the smallest opening that the spindle can fit through. For bevel sanding, use the insert with an oval-shaped opening. For 90-degree sanding, use the insert with a round opening.



## 90° Sanding

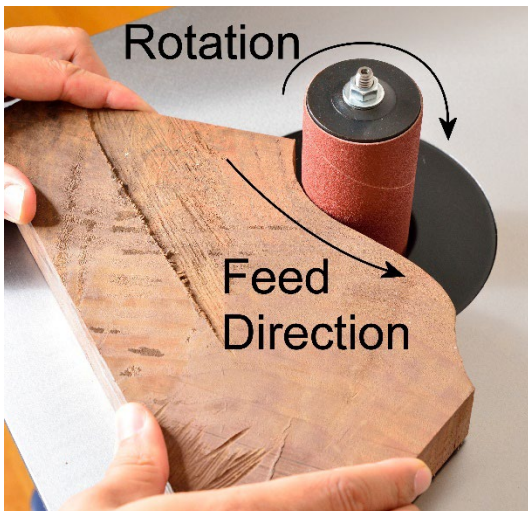
1. Move the table to the 0° position to create a squared edge. Tighten the table tilt locks.



2. Install a properly sized table insert with a round opening for 90° sanding.

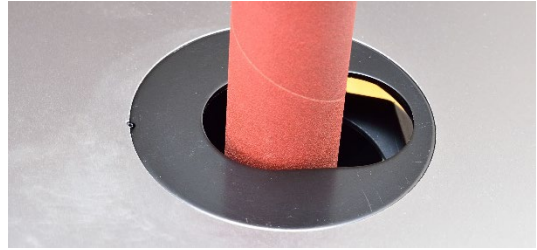


3. Before starting the sander, clear the table and turn on the dust collection system.
4. Turn on the sander.
5. Hold the workpiece firmly on the table. Feed the workpiece gently against the rotation direction of the sanding spindle.

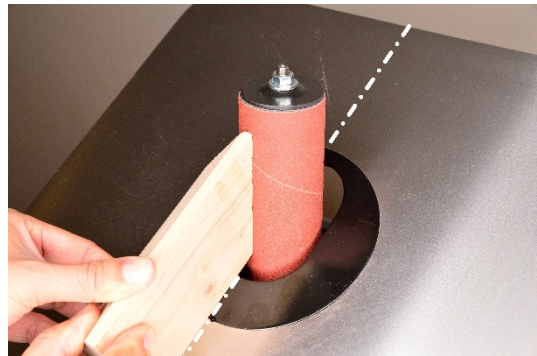


## Bevel Sanding

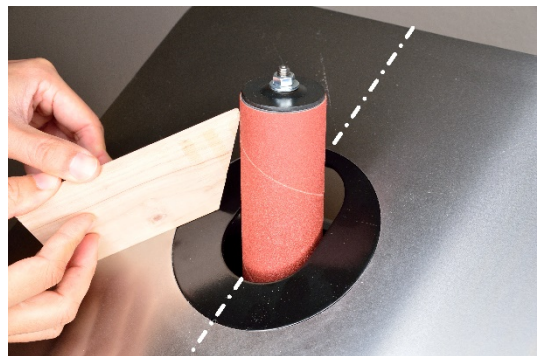
1. Install a table insert with an oval-shaped opening for bevel sanding.



2. Clear the table, then adjust the tilt angle of the table. Tighten the table tilt locks.
3. Turn on the dust collection system and turn on the sander.
4. Hold the workpiece firmly on the table. Feed the workpiece gently against the rotation direction of the sanding spindle.
5. To create a bevel with the desired angle, engage the workpiece at the spot where the spindle meets the lowest point of the sloped table as shown in the picture below.



6. **IMPORTANT:** Engaging the workpiece in any other locations of the spindle creates an edge with an incorrect angle.



# Accessories

## Sanding Spindle



An optional 3" spindle/insert combo is available for sanding gentle curves.

To maximize productivity, purchase multiple spindles to allow sanding with various grits without changing the sanding sleeves frequently.

---

## Touchup Paint



Keeping all painted surfaces in good condition not only makes your machine looking nice but also keeps rusts away. Oliver Machinery has pre-mixed spray paint available in Oliver-Blue for purchase.

---

Accessories are available on our website: [OLIVERMACHINERY.NET](http://OLIVERMACHINERY.NET)

To order by phone, please call us at **1-800-559-5065**. We are available Monday through Friday, 7:30 AM to 4 PM Pacific Time. You can also email us at [PARTS@OLIVERMACHINERY.NET](mailto:PARTS@OLIVERMACHINERY.NET) to purchase accessories.

Please visit our website at [OLIVERMACHINERY.NET](http://OLIVERMACHINERY.NET) for additional recommended accessories.



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




# Maintenance

Routine maintenance keeps your sander in optimal condition. Please follow the maintenance schedule below, and use the maintenance record worksheet attached in the back of the manual to document all tasks completed.

**NOTICE:** Maintenance schedule may vary for individual users due to different situations and safety requirements.

Task	Frequency
Inspect the sanding sleeve for signs of failure.	Every time before any operation begins.
Inspect power switch, cord, and plugs for signs of failure.	Every day before any operation begins.
Clean sanding sleeve with abrasive cleaning stick.	When the sanding sleeve is clogged.
Remove dust accumulated on the machine.	Weekly
Apply rust protectant on cast iron tables.	Monthly

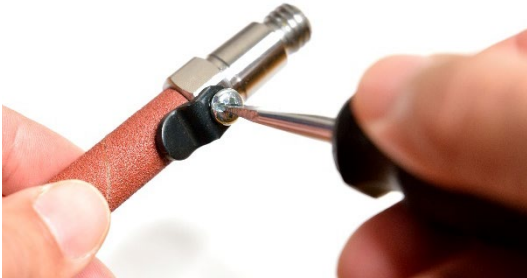
 <b>WARNING</b>	<b>Disconnect the machine from the power source before any maintenance work is performed. After servicing the sander, remove all tools before restarting the machine. Failure to comply can cause serious injury!</b>
---	---

## Changing Sanding Sleeves

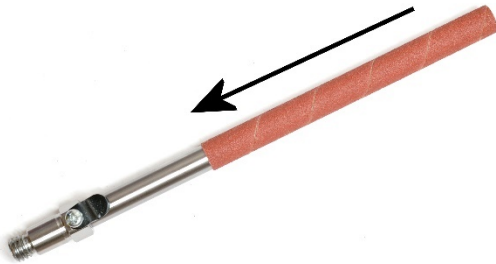
Remove the spindle from the sander before changing the sanding sleeves. Loosen the spindle by rotating it clockwise from the quill. See section “Sanding Spindle Installation / Removal” on page 19 for details.

### For 1/4", 1/2", and 5/8" Spindles:

1. Loosen the sanding sleeve clamp screw.



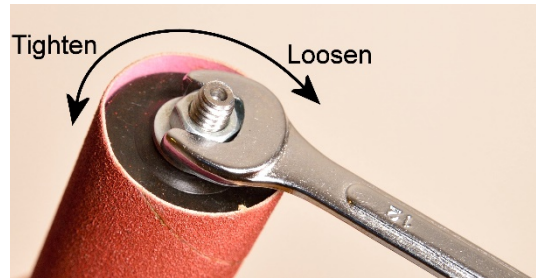
2. Remove the sanding sleeve from the spindle, and then install another one. A new sanding sleeves can be a bit tight. Lightly tap it into the spindle as needed.



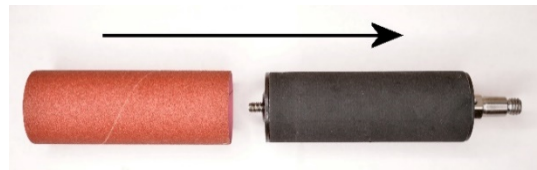
3. Retighten the sanding sleeve clamp screw to secure the sanding sleeve.
4. Try pulling the sanding sleeve away from the spindle to make sure it is securely mounted onto the spindle.

### For 1-1/2", 2", and 3"(optional) Spindles:

1. Loosen the nut that sits at the top of the spindle by rotating it clockwise.



2. Remove the sanding sleeve and install another one.



3. Rotate the nut counterclockwise until the sanding sleeve is held in place.

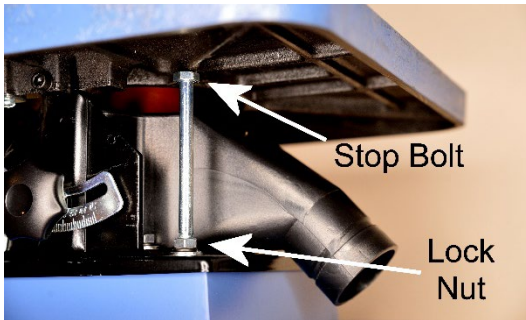
**IMPORTANT:** Do not over tighten the nut. The nut compresses the rubber column that holds the sanding sleeve by friction. Over-tightening the nut can cause the sanding sleeve to deform, overstretched, or disintegrate.

## Table Angle Stop Bolt Adjustment

The table angle stop bolt allows the table to be set perpendicular to the sanding spindle. It was adjusted in the factory and should not require readjustments initially.

### To adjust the stop bolt

1. **Disconnect sander from the power source!!**
2. Loosen the table tilt lock.
3. Loosen the lock nut of the stop bolt.



4. Place a square against the sanding spindle and the table, adjust the height of the stop bolt until the table is perpendicular to the spindle.



5. With one wrench holding the stop bolt, tighten the lock nut.
6. Re-check the squareness of the table against the spindle.
7. Make sure the pointer of the table tilt scale is now pointing at 0°. If the pointer needs to be adjusted, loosen the screw to reset the pointer's position, then retighten the screw.



# Troubleshooting

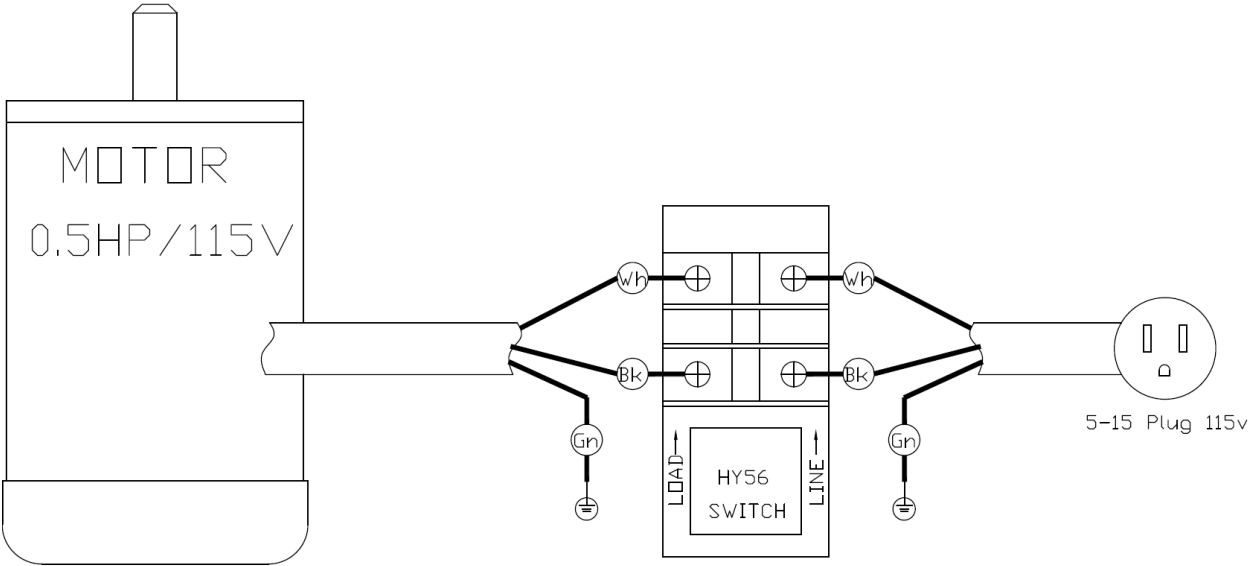
## Mechanical / Electrical Issues

Problem	Possible Cause	Solution
<b>Machine will not start</b>	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 an electrician check/repair the power circuit.
	Faulty switch/motor/capacitor.	Contact customer service for further assistance.
<b>Machine stopped during operation.</b>	Tripped circuit breaker or blown fuse.	Reconnect the circuit. Reduce feed pressure.
<b>Circuit breaker trips frequently</b>	Feeding stock too quickly.	Feed the stock more slowly and gently.
	Extension cord too light or too long.	Use a shorter / heavier cord that meets this machine's electrical requirements.
<b>Machine stalls or does not come up to speed</b>	Extension cord too light or too long.	Use a shorter / heavier cord that meets this machine's electrical requirements.
	Feed pressure too high.	Reduce feed pressure.
	Motor/capacitor issue.	Contact customer service for further assistance.
<b>Machine vibrates excessively</b>	Machine stands on uneven surface.	Reposition machine on a flat, level surface.
	Damaged spindle	Ensure the spindle is straight and balanced, and it is not cross-threaded.
	Spindle not installed correctly.	Ensure the spindle is securely fastened on the quill.
	Worn/broken sanding sleeve.	Replace sanding sleeve.
	Improper motor/component mounting.	Check, adjust, and tighten motor/component mounting.
	Motor bearing issue.	Contact customer service for further assistance.

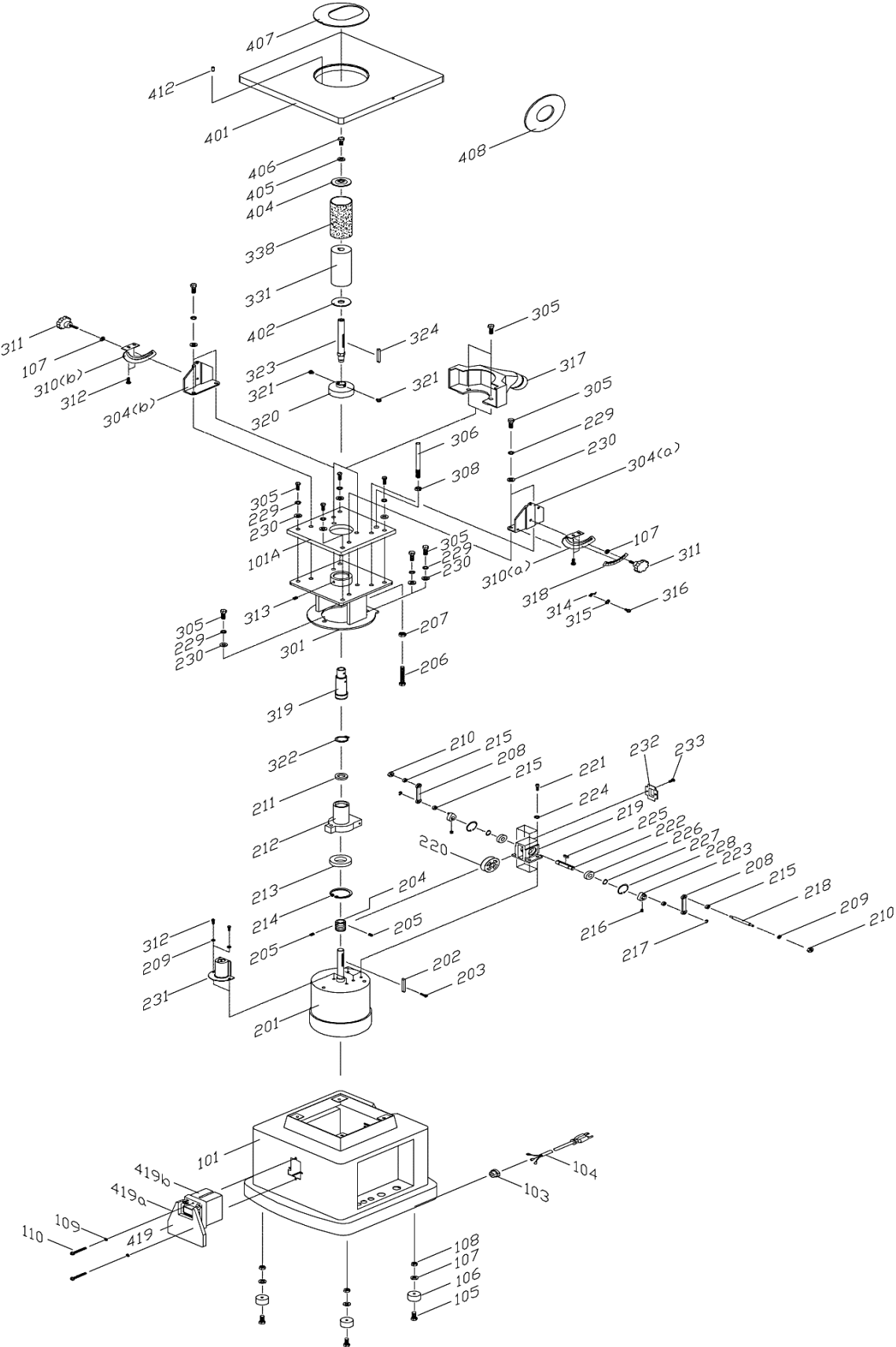
## Operation / Quality-Related Issues

Problem	Possible Cause	Solution
<b>Work pulled from hand</b>	Inadequate stock support.	Hold work firmly against the sanding belt. Use a special jig to support small stock or stock without a flat bottom.
	The sanding spindle is not perpendicular to the table.	Adjust the table tilt. Adjust the table stop bolt as needed.
<b>Sanded edge is not square</b>	Improper stock feeding.	Ensure stock is press firmly against the table when feeding.
	Incorrect table tilt angle.	Adjust the table tilt with a protractor. Adjust the table tilt scale pointer as needed.
<b>Incorrect bevel angle</b>	Engaging workpiece at a wrong position on the table.	Engage the workpiece at the spot where the spindle meets the lowest point of the sloped table.
	<b>Stock burns</b>	Sanding grit is too fine. Use a sanding sleeve with a coarser grit.
<b>Sanding sleeve clogs easily</b>	Clogged/worn sanding belt.	Use sanding belt cleaner to unclog the sleeve. Replace the sanding sleeve as needed.
	Feed pressure too high.	Lower feed pressure.
	Sanding softwood or wood with high resin content.	Clean/replace sanding sleeve more frequently.
<b>Deep sanding marks on the workpiece</b>	Sanding wet stock.	Dry stock before sanding it.
	Sanding non-wood materials.	Some materials may melt easily when heated. Sand with light pressure and keep it cool when sanding.
	Sanding sleeve grit is too coarse.	Use a finer grit sanding sleeve.
<b>Deep sanding marks on the workpiece</b>	Dirty/contaminated sanding sleeve.	Clean sanding sleeve. Replace as necessary.
	Too much feed pressure and/or abrupt feeding.	Reduce feed pressure and allow more time for the abrasive surface to work on the workpiece.
<b>Abrasive materials rub off the sleeve easily</b>	Aged sanding sleeve.	Avoid storing sanding sleeves in extreme temperature and humidity which may cause the sleeve to fail prematurely.
		Do not fold or smash the sanding sleeve as it may disintegrate the bonding material on the sleeve.

# Wiring Diagram



# Parts List



Index	Part Number	Descriptions	Specifications	QTY
101	30201001G	BASE		1
101A	30201001A	TOP PLATE		1
103	S1007P-2	STRAIN RELIEF		1
104	L0000133a	POWER CORD	18AWG 1R2Y	1
105	S0030625M	PHILIPS HEAD SCREW	M6*25	4
106	10107098	RUBBER FEET		4
107	S0210403	FLAT WASHER	1/4"*16MM*1T	2
108	S0110600M	HEX. NUT	M6*1	4
109	S0020816M	PHILIPS HEAD SCREW	M8*1.25*16	2
110	S0030508M	PHILIPS HEAD SCREW	M5*0.8*8	2
201	M000000	MOTOR		1
202	S0400650	KEY	6*6*50	1
203	S0040415M	FLATHEAD SCREW	M4*0.7*15	1
204	30202001	WORM SHAFT		1
205	S0050505M	SET SCREW	M5*p0.8*5	2
206	30202002	TRANSMISSION ROD		1
207	S0110800M	HEX. NUT	M8*p1.25	1
208	30202003	CONNECTING ROD		2
209	S0230300	SPRING WASHER	3/16"	2
210	S0120500M	LOCKING NUT	M5*p0.8	2
211	C1106804KY	BEARING	6804ZZ	1
212	30202004	TRANSMISSION		1
213	C1106006	BEARING	6006ZZ	1
214	S0530055	C RING	R-55	1
215	30202005	BUSHING		4
216	S0050406M	SET SCREW	M4*0.7*6	2
217	S05ETW04	E RING	ETW-4	2
218	30202020	CONNECTING SHAFT		1
219	30202006P	BRACKET		1
220	30202007P	WORM		1
221	S0010615F	HEX. SOCKET CAP SCREW	M6*1-15	4
222	30202008P	SHAFT		1
223	30204010	CRANKSHAFT		2
224	S0230400	SPRING WASHER	1/4" (M6)	4
225	S0400412	KEY	4*4*12	1
226	C1106001	BEARING	6001ZZ	2
227	S0520012	C RING	STW-12	2
228	S0530028	C RING	R-28	2
229	S0230506	SPRING WASHER	5/16"	11
230	S0210500C	FLAT WASHER	5/16"*18*2T	11
231	30202009	OIL CAP		1



Index	Part Number	Descriptions	Specifications	QTY
<b>232</b>	30202014	REAR OIL COVER		1
<b>233</b>	S0030304	PHILIPS HEAD SCREW	3/16"-24UNC*1/4"	4
<b>301</b>	30203001	HOUSING		1
<b>304A</b>	30203003	BRACKET (RIGHT)		1
<b>304B</b>	30203003A	BRACKET (LEFT)		1
<b>305</b>	S0020825M	HEX. SCREW	M8*25	4
<b>306</b>	S0028110M	HEX. SCREW	M8*p1.25*110	1
<b>308</b>	S0110800M	HEX. NUT	M8*1.25	1
<b>310A</b>	40501011	SUPPORT TRUNNION (RIGHT)		1
<b>310B</b>	40501011A	SUPPORT TRUNNION (LEFT)		1
<b>311</b>	30204013G	LOCK KNOB		2
<b>312</b>	S0030510M	HEX. SOCKET CAP SCREW	M5*0.8*10	4
<b>313</b>	S0050606M	SET SCREW	M6*1*6	1
<b>314</b>	10102022	POINTER		1
<b>315</b>	S0220300	GEAR WASHER	3/16"	2
<b>316</b>	S0030508M	PHILIPS HEAD SCREW	M5*0.8*8	4
<b>317</b>	30203005	DUST COLLECTION PORT		1
<b>318</b>	J3020005	TABLE SCALE		1
<b>319</b>	30203006	MAIN SPINDLE		1
<b>320</b>	30203007	SPINDLE COVER		1
<b>321</b>	S0030505M	PHILIPS HEAD SCREW	M5*0.8*5	2
<b>322</b>	S0520021	C RING	S-28	1
<b>323</b>	30203008	5/8" SANDING SPINDLE		3
<b>NS</b>	30203017A	1/2" SANDING SPINDLE		1
<b>NS</b>	30203018A	1/4" SANDING SPINDLE		1
<b>324</b>	S0400550	KEY	5*5*50	1
<b>331</b>	30203015	RUBBER SLEEVE	2"	1
<b>331</b>	30203014	RUBBER SLEEVE	1-1/2"	1
<b>NS</b>	30203019A	1/4", 1/2", 5/8" SANDING SLEEVE CLAMP		3
<b>338</b>	Local Purchase	SANDING SLEEVE	1/4"	1
<b>NS</b>	Local Purchase	SANDING SLEEVE	1/2"	1
<b>NS</b>	Local Purchase	SANDING SLEEVE	5/8"	1
<b>NS</b>	Local Purchase	SANDING SLEEVE	1-1/2"	1
<b>NS</b>	Local Purchase	SANDING SLEEVE	2"	1

Index	Part Number	Descriptions	Specifications	QTY
401	30204001	TABLE		1
402	20301044	2" UPPER PLATE		1
402	20301002	1-1/2" UPPER PLATE		1
404	20301044	2" FOLLOWER PLATE		2
405	S0210500	FLAT WASHER	5/16"*16*1T	2
406	S0110500L	HEX. NUT	5/16"*18UNC	2
407	30204003Q	2" TABLE INSERT (OVAL)		1
408	30204004	2" TABLE INSERT (ROUND)		1
NS	30204005	3/4" TABLE INSERT (ROUND)		1
NS	30204006Q	3/4" TABLE INSERT (OVAL)		1
412	S0310310	SPRING PIN	3*10	1
NS	S0911417	WRENCH	14*17MM	1
NS	S0911012	WRENCH	10*12MM	1
419	WG000007	PADDLE STOP	HY56-4	1
419A	WG000007	SWITCH		1
419B	WG000002	SWITCH COVER		1

#### Replacement Spindle Assembly

Index	Part Number	Descriptions	Specifications	QTY
NS	30203000A	COMPLETE ASSEMBLY w/ABRASIVE SLEEVE	1/4" x 6"	1
NS	30203000B	COMPLETE ASSEMBLY w/ABRASIVE SLEEVE	1/2" x 6"	1
NS	30203000I	COMPLETE ASSEMBLY w/ABRASIVE SLEEVE	5/8" x 6"	1
NS	30203000D	COMPLETE ASSEMBLY w/ABRASIVE SLEEVE	1-1/2" x 6"	1
NS	30203000E	COMPLETE ASSEMBLY w/ABRASIVE SLEEVE	2" x 6"	1

\*NS: Item not shown in the exploded view diagram.



# Notes

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

# Warranty and Service

Oliver Machinery makes every effort to assure that its equipment meets the highest possible standards of quality and durability. All products sold by Oliver Machinery are warranted to the original customer to be free from defects for a period of two (2) years on all parts excluding electronics and motors which are warranted for one (1) year from the date of shipment. Oliver Machinery's obligation under this warranty shall be exclusively limited to repairing or replacing products or parts or components, at its sole option, determined by Oliver Machinery to be defective. Oliver Machinery shall not be required to provide other form of indemnity or compensation including but not limited to compensatory damages.

This warranty does not apply to defects due to direct or indirect misuse, abuse, negligence, accidents, unauthorized repairs, alternation outside our facilities, lack of maintenance, acts of nature, or items that would normally be consumed or require replacement due to normal wear and tear.

## **OTHER TERMS**

To obtain and exercise the warranty right, please call 800-559-5065 or fill out warranty request form online at [www.olivermachinery.net](http://www.olivermachinery.net).

Warranty parts are shipped via Parcel or Ground. Additional charges will occur and charge to customers if express shipping is required.

## **DISCLAIMER**

Under no circumstances shall Oliver Machinery be liable for death, personal or property injury, or damages arising from the use of its products.

Oliver Machinery reserves the right to make changes without prior notice to its products to improve function or performance or design.

## **FOR MORE INFORMATION**

If you need assistance or have questions beyond what is covered in the scope of this warranty information, please call 800-559-5065 or email us at [info@olivermachinery.net](mailto:info@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](http://WWW.OLIVERMACHINERY.NET)

or call toll free 1-800-559-5065

**\*\* SAVE THIS MANUAL FOR FUTURE REFERENCES. \*\***