



# OPERATOR'S MANUAL

Wood Working



## OSCILLATING VERTICAL SPINDLE SANDER MODEL: OS-1414

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# Table of Contents

THANK YOU & WARRANTY .....	1
INTRODUCTION.....	3
GENERAL NOTES.....	3
SAFETY INSTRUCTIONS .....	4
SAFETY PRECAUTIONS .....	6
Dear Valued Customer:.....	6
TECHNICAL SPECIFICATIONS.....	9
TECHNICAL SUPPORT .....	9
UNPACKING AND CHECKING CONTENTS.....	10
Cleaning .....	10
TRANSPORTING AND LIFTING .....	11
INSTALLATION.....	11
Anchoring the Machine.....	12
OVERALL DIMENSIONS.....	13
GETTING TO KNOW YOUR MACHINE .....	13
ELECTRICAL .....	14
Power cord connection: .....	15
OPERATION.....	16
Tilting the Table .....	17
Mounting Spindle Drum .....	17
SELECTION GUIDE FOR DRUM TO TABLE INSERT .....	18
MAINTENANCE .....	19
TROUBLESHOOTING .....	20
PARTS DIAGRAM 1 .....	21
PARTS DIAGRAM 2 .....	22
Parts List .....	23



## THANK YOU & WARRANTY

Thank you for your purchase of a machine from Baileigh Industrial Holdings LLC. We hope that you find it productive and useful to you for a long time to come.

**Inspection & Acceptance.** Buyer shall inspect all Goods within ten (10) days after receipt thereof. Buyer's payment shall constitute final acceptance of the Goods and shall act as a waiver of the Buyer's rights to inspect or reject the goods unless otherwise agreed. If Buyer rejects any merchandise, Buyer must first obtain a Returned Goods Authorization ("RGA") number before returning any goods to Seller. Goods returned without a RGA will be refused. Seller will not be responsible for any freight costs, damages to goods, or any other costs or liabilities pertaining to goods returned without an RGA. Seller shall have the right to substitute a conforming tender. Buyer will be responsible for all freight costs to and from Buyer and repackaging costs, if any, if Buyer refuses to accept shipment. If Goods are returned in unsalable condition, Buyer shall be responsible for full value of the Goods. Buyer may not return any special-order Goods. Any Goods returned hereunder shall be subject to a restocking fee equal to 30% of the invoice price.

**Specifications.** Seller may, at its option, make changes in the designs, specifications or components of the Goods to improve the safety of such Goods, or if in Seller's judgment, such changes will be beneficial to their operation or use. Buyer may not make any changes in the specifications for the Goods unless Seller approves of such changes in writing, in which event Seller may impose additional charges to implement such changes.

**Limited Warranty.** Seller warrants to the original end-user that the Goods manufactured or provided by Seller under this Agreement shall be free of defects in material or workmanship for a period of twelve (12) months from the date of purchase, provided that the Goods are installed, used, and maintained in accordance with any instruction manual or technical guidelines provided by the Seller or supplied with the Goods, if applicable. The original end-user must give written notice to Seller of any suspected defect in the Goods prior to the expiration of the warranty period. The original end-user must also obtain a RGA from Seller prior to returning any Goods to Seller for warranty service under this paragraph. Seller will not accept any responsibility for Goods returned without a RGA. The original end-user shall be responsible for all costs and expenses associated with returning the Goods to Seller for warranty service. In the event of a defect, Seller, at its sole option, shall repair or replace the defective Goods or refund to the original end-user the purchase price for such defective Goods. Goods are not eligible for replacement or return after a period of 10 days from date of receipt. The foregoing warranty is Seller's sole obligation, and the original end-user's exclusive remedy, with regard to any defective Goods. This limited warranty does not apply to: (a) die sets, tooling, and saw blades; (b) periodic or routine maintenance and setup, (c) repair or replacement of the Goods due to normal wear and tear, (d) defects or damage to the Goods resulting from misuse, abuse, neglect, or accidents, (e) defects or damage to the Goods resulting from improper or unauthorized alterations, modifications, or changes; and (f) any Goods that has not been installed and/or maintained in accordance with the instruction manual or technical guidelines provided by Seller.

**EXCLUSION OF OTHER WARRANTIES.** THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. ANY AND ALL OTHER EXPRESS, STATUTORY OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. NO WARRANTY IS MADE WHICH EXTENDS BEYOND THAT WHICH IS EXPRESSLY CONTAINED HEREIN.

**Limitation of Liability.** IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY OTHER PARTY FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR DOWN TIME) ARISING FROM OR IN MANNER CONNECTED WITH THE GOODS, ANY BREACH BY SELLER OR ITS AGENTS OF THIS AGREEMENT, OR ANY OTHER CAUSE WHATSOEVER, WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY OF LIABILITY. BUYER'S REMEDY WITH RESPECT TO ANY CLAIM ARISING UNDER THIS AGREEMENT IS STRICTLY LIMITED TO NO MORE THAN THE AMOUNT PAID BY THE BUYER FOR THE GOODS.



**Force Majeure.** Seller shall not be responsible for any delay in the delivery of, or failure to deliver, Goods due to causes beyond Seller's reasonable control including, without limitation, acts of God, acts of war or terrorism, enemy actions, hostilities, strikes, labor difficulties, embargoes, non-delivery or late delivery of materials, parts and equipment or transportation delays not caused by the fault of Seller, delays caused by civil authorities, governmental regulations or orders, fire, lightening, natural disasters or any other cause beyond Seller's reasonable control. In the event of any such delay, performance will be postponed by such length of time as may be reasonably necessary to compensate for the delay.

**Installation.** If Buyer purchases any Goods that require installation, Buyer shall, at its expense, make all arrangements and connections necessary to install and operate the Goods. Buyer shall install the Goods in accordance with any Seller instructions and shall indemnify Seller against any and all damages, demands, suits, causes of action, claims and expenses (including actual attorneys' fees and costs) arising directly or indirectly out of Buyer's failure to properly install the Goods.

**Work By Others; Safety Devices.** Unless agreed to in writing by Seller, Seller has no responsibility for labor or work performed by Buyer or others, of any nature, relating to design, manufacture, fabrication, use, installation or provision of Goods. Buyer is solely responsible for furnishing and requiring its employees and customers to use all safety devices, guards and safe operating procedures required by law and/or as set forth in manuals and instruction sheets furnished by Seller. Buyer is responsible for consulting all operator manuals, ANSI or comparable safety standards, OSHA regulations and other sources of safety standards and regulations applicable to the use and operation of the Goods.

**Remedies.** Each of the rights and remedies of Seller under this Agreement is cumulative and in addition to any other or further remedies provided under this Agreement or at law or equity.

**Attorney's Fees.** In the event legal action is necessary to recover monies due from Buyer or to enforce any provision of this Agreement, Buyer shall be liable to Seller for all costs and expenses associated therewith, including Seller's actual attorney fees and costs.

**Governing Law/Venue.** This Agreement shall be construed and governed under the laws of the State of Wisconsin, without application of conflict of law principles. Each party agrees that all actions or proceedings arising out of or in connection with this Agreement shall be commenced, tried, and litigated only in the state courts sitting in Manitowoc County, Wisconsin or the U.S. Federal Court for the Eastern District of Wisconsin. Each party waives any right it may have to assert the doctrine of "forum non conveniens" or to object to venue to the extent that any proceeding is brought in accordance with this section. Each party consents to and waives any objection to the exercise of personal jurisdiction over it by courts described in this section. Each party waives to the fullest extent permitted by applicable law the right to a trial by jury.

#### **SUMMARY OF RETURN POLICY.**

- 10 Day acceptance period from date of delivery. Damage claims and order discrepancies will not be accepted after this time.
- You must obtain a Baileigh issued RGA number PRIOR to returning any materials.
- Returned materials must be received at Baileigh in new condition and in original packaging.
- Altered items are not eligible for return.
- Buyer is responsible for all shipping charges.
- A 30% re-stocking fee applies to all returns.

Baileigh Industrial Holdings LLC makes every effort to ensure that our posted specifications, images, pricing and product availability are as correct and timely as possible. We apologize for any discrepancies that may occur. Baileigh Industrial Holdings LLC reserves the right to make any and all changes deemed necessary in the course of business including but not limited to pricing, product specifications, quantities, and product availability.

#### **For Customer Service & Technical Support:**

Please contact one of our knowledgeable Sales and Service team members at:  
(920) 684-4990 or e-mail us at [sales@baileighindustrial.com](mailto:sales@baileighindustrial.com)



## **INTRODUCTION**

*The quality and reliability of the components assembled on a Baileigh Industrial Holdings LLC machine guarantee near perfect functioning, free from problems, even under the most demanding working conditions. However, if a situation arises, refer to the manual first. If a solution cannot be found, contact the distributor where you purchased our product. Make sure you have the serial number and production year of the machine (stamped on the nameplate). For replacement parts refer to the assembly numbers on the parts list drawings.*

*Our technical staff will do their best to help you get your machine back in working order.*

### **In this manual you will find: (when applicable)**

- Safety procedures
- Correct installation guidelines
- Description of the functional parts of the machine
- Capacity charts
- Setup and start-up instructions
- Machine operation
- Scheduled maintenance
- Parts lists

## **GENERAL NOTES**

After receiving your equipment remove the protective container. Do a complete visual inspection, and if damage is noted, **photograph it for insurance claims** and contact your carrier at once, requesting inspection. Also contact Baileigh Industrial Holdings LLC and inform them of the unexpected occurrence. Temporarily suspend installation.

Take necessary precautions while loading / unloading or moving the machine to avoid any injuries.

Your machine is designed and manufactured to work smoothly and efficiently. Following proper maintenance instructions will help ensure this. Try and use original spare parts, whenever possible, and most importantly; **DO NOT** overload the machine or make any unauthorized modifications.



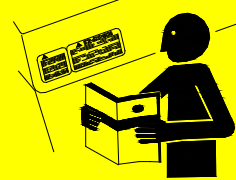
**Note:** This symbol refers to useful information throughout the manual.



## IMPORTANT

### PLEASE READ THIS OPERATORS MANUAL CAREFULLY

It contains important safety information, instructions, and necessary operating procedures. The continual observance of these procedures will help increase your production and extend the life of the equipment.



## SAFETY INSTRUCTIONS

### LEARN TO RECOGNIZE SAFETY INFORMATION

This is the safety alert symbol. When you see this symbol on your machine or in this manual, **BE ALERT TO THE POTENTIAL FOR PERSONAL INJURY!**



Follow recommended precautions and safe operating practices.

### UNDERSTAND SIGNAL WORDS

A signal word – **DANGER**, **WARNING**, or **CAUTION** – is used with the safety alert symbol. **NOTICE**, which is not related to personal injury, is used without a symbol.

**DANGER:** Indicates a 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, could result in minor or moderate injury.

**NOTICE:** Indicates a situation which, if not avoided, could result in property damage.

**DANGER**

**WARNING**

**CAUTION**

**NOTICE**

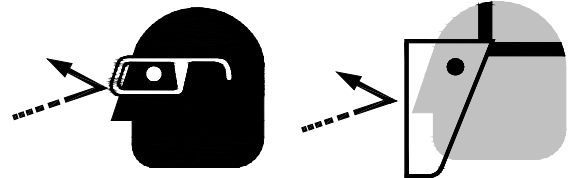


**SAVE THESE INSTRUCTIONS.**  
**Refer to them often and use them to instruct others.**



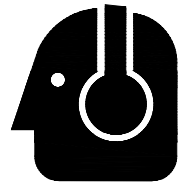
**PROTECT EYES**

Wear safety glasses or suitable eye protection when working on or around machinery.



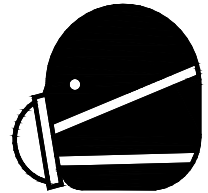
**PROTECT AGAINST NOISE**

Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear suitable hearing protective devices such as ear muffs or earplugs to protect against objectionable or uncomfortable loud noises.



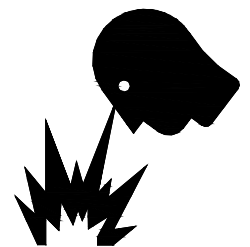
**DUST HAZARD**

Wear appropriate dust mask. Dust created while using machinery can cause cancer, birth defects, and long term respiratory damage. Be aware of the dust hazards associated with all types of materials.



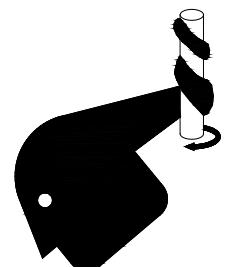
**DUST PARTICLES AND IGNITION SOURCES**

**DO NOT** operate the table saw in areas where explosion risks are high. Such areas include locations near pilot lights, open flames, or other ignition sources.



**ENTANGLEMENT HAZARD – ROTATING SPINDLE**

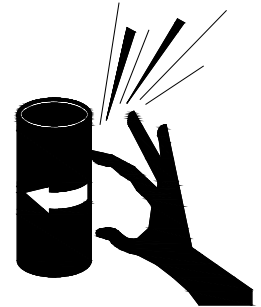
Contain long hair, **DO NOT** wear jewelry or loose fitting clothing.





## ROTATING SPINDLE ABRASIONS

**DO NOT** place hands or fingers near, or in contact with sanding spindle during operation.



## SAFETY PRECAUTIONS



Wood working can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.

Safety equipment such as guards, push sticks, hold-downs, feather boards, goggles, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. **Always use common sense** and exercise **caution** in the workshop. If a procedure feels dangerous, don't try it.

**REMEMBER: Your personal safety is your responsibility.**



**WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY**

Dear Valued Customer:

- All Baileigh woodworking machines should be used only for their intended use.
- Baileigh does not recommend or endorse making any modifications or alterations to a Baileigh machine. Modifications or alterations to a machine may pose a substantial risk of injury to the operator or others and may do substantial damage to the machine.
- Any modifications or alterations to a Baileigh machine will invalidate the machine's warranty.

**Please enjoy your Baileigh machine! ....Please enjoy it SAFELY!**

1. **FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE.** Learn the machine's application and limitations as well as the specific hazards.
2. **Only trained and qualified personnel should operate this machine.**





3. Make sure guards are in place and in proper working order before operating machinery.
4. Respirator Use. Always use a mask or respirator approved for wood dust when using this machine to reduce the risk of respiratory problems.
5. Remove any adjusting tools. Before operating the machine, make sure any adjusting tools have been removed.
6. Keep work area clean. Cluttered areas invite injuries.
7. Feed Rate. Never jam a piece part against the sanding surface. This can cause the piece part to kick back causing personal injury or damage to the machine. Always hold the piece part firmly and ease it against the spindle with light pressure.
8. Placement of Hands. To avoid personal injury, DO NOT place hands near, or in contact with the sanding surface.
9. Sanding Sleeves. Sleeves that are worn or damaged can tear apart and become entangled in or thrown out from the spindle resulting in personal injury.
10. Overloading machine. By overloading the machine you may cause injury from flying parts. DO NOT exceed the specified machine capacities.
11. Dress appropriate. DO NOT wear loose fitting clothing or jewelry as they can be caught in moving machine parts. Protective clothing and steel toe shoes are recommended when using machinery. Wear a restrictive hair covering to contain long hair.
12. Foreign Material. ALWAYS inspect stock for staples, nails, knots, and other imperfections that could become projectiles causing serious bodily harm.
13. Use eye and ear protection. Always wear ISO approved impact safety goggles
14. Do not overreach. Maintain proper footing and balance at all times. DO NOT reach over or across a running machine.
15. Handling Piece Part. Hold the piece part with both hands, or use an appropriate jig to help prevent the piece part from being thrown from the machine.
16. Stay alert. Watch what you are doing and use common sense. DO NOT operate any tool or machine when you are tired.
17. Check for damaged parts. Before using any tool or machine, carefully check any part that appears damaged. Check for binding of moving parts that may affect proper machine operation.
18. **Sanding Direction. NEVER** sand pointed or tapered stock with the point facing the feed direction, which could cause the piece part to be thrown from the machine.
19. **Observe work area conditions. DO NOT** use machines or power tools in damp or wet locations. Do not expose to rain. Keep work area well lighted. **DO NOT** use electrically powered tools in the presence of flammable gases or liquids.
20. **DO NOT** bypass or defeat any safety interlock systems.



21. Know the location of the **ON - OFF** switch and the “**E**”- **STOP** button.
22. Keep visitors a safe distance from the work area.
23. **Keep children away.** Children must never be allowed in the work area. **DO NOT** let them handle machines, tools, or extension cords.
24. **DO NOT operate machine if under the influence of alcohol or drugs.** Read warning labels on prescriptions. If there is any doubt, **DO NOT** operate the machine.
25. **DO NOT** touch live electrical components or parts.
26. **Be Sure** all equipment is properly installed and grounded according to national, state, and local codes. If machine is equipped with a three-prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter plug must be attached to a known ground. Never remove the third prong.
27. Inspect power and control cables periodically. Replace if damaged or bare wires are exposed. **Bare wiring can kill!**
28. **Maintain machine in top condition.** Keep clean for best and safest performance. Follow instructions for lubricating and changing accessories.
29. **Reduce the risk of unintentional starting.** Make sure switch is in “**OFF**” position before plugging in power cord.
30. **Never leave machine running unattended. TURN POWER OFF.** Don't leave machine until it comes to a complete stop.
31. **Make sure machine is disconnected from power supply** while motor is being mounted, connected or reconnected.
32. **Sand Appropriate Material.** Only use this sander for natural wood stock. It is **NOT** recommended to sand particle board, plastics, laminates, medium-density fibre board (MDF), metal, glass, ceramics, or products containing asbestos or lead paint. Some of these materials contain hazardous dust and will shorten the life span of the sanding spindle.
33. **Warning:** The dust generated by certain woods and wood products can be injurious to your health. Always operate machinery in well ventilated areas and provide for proper dust removal. Use a wood dust collection system whenever possible.



## TECHNICAL SPECIFICATIONS

Table Size (L x W)	14.6" x 4.6" (370 x 370mm)
Table Tilt	0~45°
Spindle Speed	1420rpm
Oscillations	24/min
Oscillation Stroke	.94" (24mm)
Sanding Sleeve Length	5.5" (141mm)
Maximum Workpiece Height	3.15" (80mm)
Dust Port Diameter	2" (50.8mm)
Motor	.5hp (0.4kw) 110V, 60Hz, 1ph, 6A
Gear Box Oil	1qts. (.95L) 70W to 75W gear oil.
Overall (L x W x H)	14.6" x 14.6" x 18.9" (370 x 370 x 480mm)
Net Weight	77 lbs. (35kg)
Typically included items (may vary)	Typically included Qty (may vary)
Spindles	5
Sanding Sleeves	4
Table Inserts	3
Tools	2 Open End, 1 Allen

## TECHNICAL SUPPORT

Our technical support department can be reached at 920.684.4990 and asking for the support desk for purchased machines. Tech Support handles questions on machine setup, schematics, warranty issues, and individual parts needs: (other than die sets and blades).

For specific application needs or future machine purchases contact the Sales Department at: [sales@baileigh.com](mailto:sales@baileigh.com), Phone: 920.684.4990, or Fax: 920.684.3944.



**Note:** *The photos and illustrations used in this manual are representative only and may not depict the actual color, labeling or accessories and may be intended to illustrate technique only.*



**Note:** *The specifications and dimensions presented here are subject to change without prior notice due to improvements of our products.*



## UNPACKING AND CHECKING CONTENTS

Your Baileigh machine is shipped complete. Separate all parts from the packing material and check each item carefully. Make certain all items are accounted for before discarding any packing material.

**⚠ WARNING: SUFFOCATION HAZARD!** Immediately discard any plastic bags and packing materials to eliminate choking and suffocation hazards to children and animals.

If any parts are missing, **DO NOT** place the machine into service until the missing parts are obtained and installed correctly.

### Cleaning

**⚠ WARNING: DO NOT USE** gasoline or other petroleum products to clean the machine. They have low flash points and can explode or cause fire.

**⚠ CAUTION:** When using cleaning solvents work in a well-ventilated area. Many cleaning solvents are toxic if inhaled.

Your machine may be shipped with a rustproof waxy coating and/or grease on the exposed unpainted metal surfaces. Fully and completely remove this protective coating using a degreaser or solvent cleaner. Moving items will need to be moved along their travel path to allow for cleaning the entire surface. For a more thorough cleaning, some parts will occasionally have to be removed. **DO NOT USE** acetone or brake cleaner as they may damage painted surfaces.

Follow manufacturer's label instructions when using any type of cleaning product. After cleaning, wipe unpainted metal surfaces with a light coating of quality oil or grease for protection.



**Important:** This waxy coating is **NOT** a lubricant and will cause the machine to stick and lose performance as the coating continues to dry.





## **TRANSPORTING AND LIFTING**

**NOTICE:** *Lifting and carrying operations should be carried out by skilled workers, such as a truck operator, crane operator, etc. If a crane is used to lift the machine, attach the lifting chain carefully, making sure the machine is well balanced.*

### **Follow these guidelines when lifting with truck or trolley:**

- The lift truck must be able to lift at least 1.5 – 2 times the machines gross weight.
- Make sure the machine is balanced. While transporting, avoid rough or jerky motion, and maintain a safe clearance zone around the transport area.
- Use a fork lift with sufficient lifting capacity and forks that are long enough to reach the complete width of the machine.
- Remove the securing bolts that attach the machine to the pallet.
- Approaching the machine from the side, lift the machine on the frame taking care that there are no cables or pipes in the area of the forks.
- Move the machine to the required position and lower gently to the floor.
- Level the machine so that all the supporting feet are taking the weight of the machine and no rocking is taking place.

## **INSTALLATION**

### **IMPORTANT:**

Consider the following when looking for a suitable location to place the machine:

- Overall weight of the machine.
- Weight of material being processed.
- Sizes of material to be processed through the machine.
- Space needed for auxiliary stands, work tables, or other machinery.
- Clearance from walls and other obstacles.
- Maintain an adequate working area around the machine for safety.
- Have the work area well illuminated with proper lighting.
- Keep the floor free of oil and make sure it is not slippery.
- Remove scrap and waste materials regularly, and make sure the work area is free from obstructing objects.



- It is important to maintain free area around the machine, which is required for the working place. If any long material is machined, it is necessary to have a sufficient room in front of the machine as well behind it in the places of material input and output.
- **LEVELING:** The machine should be sited on a level, concrete floor. Provisions for securing it should be in position prior to placing the machine. The accuracy of any machine depends on the precise placement of it to the mounting surface.
- **FLOOR:** This tool distributes a large amount of weight over a small area. Make certain that the floor is capable of supporting the weight of the machine, work stock, and the operator. The floor should also be a level surface. If the unit wobbles or rocks once in place, be sure to eliminate by using shims.
- **WORKING CLEARANCES:** Take into consideration the size of the material to be processed. Make sure that you allow enough space for you to operate the machine freely.
- **POWER SUPPLY PLACEMENT:** The power supply should be located close enough to the machine so that the power cord is not in an area where it would cause a tripping hazard. Be sure to observe all electrical codes if installing new circuits and/or outlets.

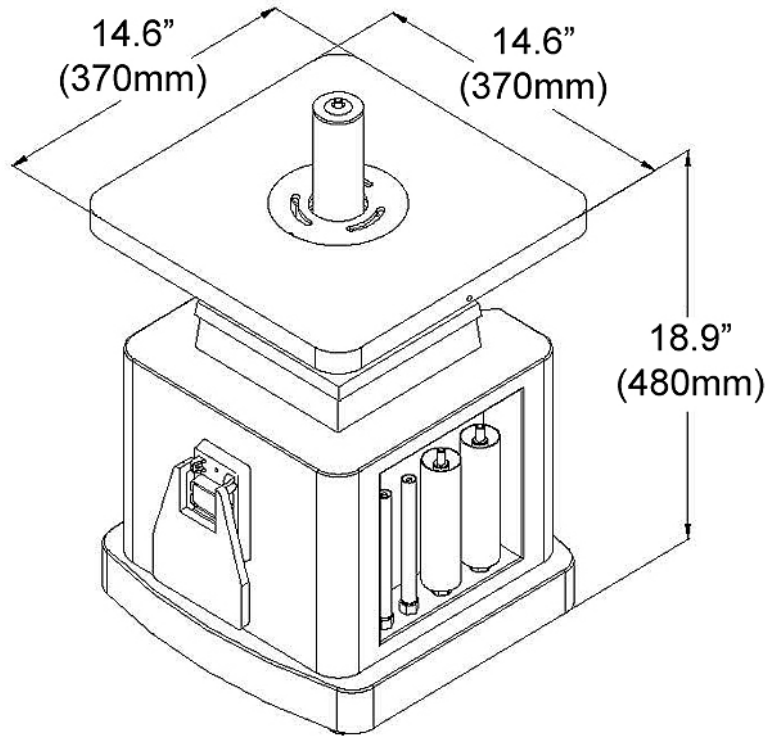
### **Anchoring the Machine**

If you intend to mount the Baileigh machine on a workbench be aware of the following:

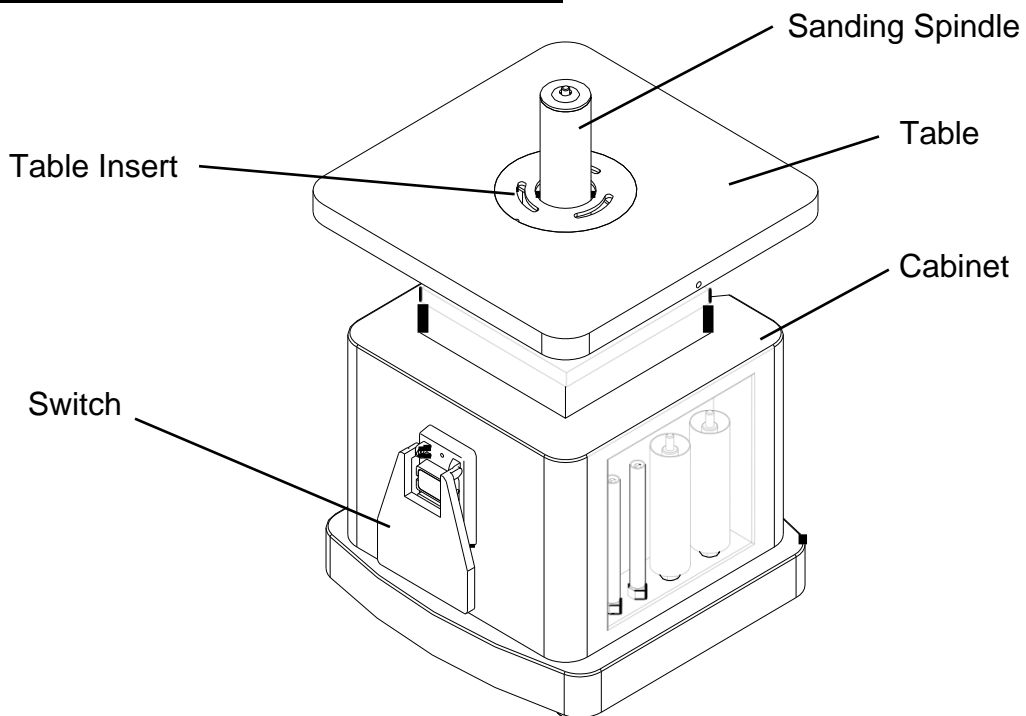
- Overall weight of the machine.
- Weight of material being processed.
- Make sure the workbench is properly reinforced to support the weight.



## OVERALL DIMENSIONS





## GETTING TO KNOW YOUR MACHINE





## ELECTRICAL

 **CAUTION:** HAVE ELECTRICAL UTILITIES CONNECTED TO MACHINE BY A CERTIFIED ELECTRICIAN!  
Check if the available power supply is the same as listed on the machine nameplate.

 **WARNING:** Make sure the grounding wire (green) is properly connected to avoid electric shock. DO NOT switch the position of the green grounding wire if any electrical plug wires are switched during hookup.


### Power Specifications

Your machine is wired for 110 volts, 60hz alternating current. Before connecting the machine to the power source, make sure the power source is OFF.

Before switching on the power, you must check the voltage and frequency of the power to see if they meet with the requirement, the allowed range for the voltage is  $\pm 5\%$ , and for the frequency is  $\pm 1\%$ .

### Considerations

- Observe local electrical codes when connecting the machine.
- The circuit should be protected with a time delay fuse or circuit breaker with a amperage rating slightly higher than the full load current of machine.
- A separate electrical circuit should be used for your machine. Before connecting the motor to the power line, make sure the switch is in the "OFF" position and be sure that the electric current is of the same characteristics as indicated on the machine.
- All line connections should make good contact. Running on low voltage will damage the motor.
- In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

 **WARNING:** In all cases, make certain the receptacle in question is properly grounded. If you are not sure, have a qualified electrician check the receptacle.





- Improper connection of the equipment-grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.
- Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the machine is properly grounded.
- Repair or replace damaged or worn cord immediately.

### **Extension Cord Safety**

Extension cord should be in good condition and meet the minimum wire gauge requirements listed below:

AMP RATING	LENGTH		
	25ft	50ft	100ft
1-12	16	16	14
13-16	14	12	12
17-20	12	12	10
21-30	10	10	No
WIRE GAUGE			


An undersized cord decreases line voltage, causing loss of power and overheating. All cords should use a ground wire and plug pin. Replace any damaged cords immediately.

### **Power cord connection:**

1. Turn the main disconnect switch on the control panel to the OFF position.
2. Unwrap the power cord and route the cord away from the machine toward the power supply.
  - a. Route the power cord so that it will NOT become entangled in the machine in any way.
  - b. Route the cord to the power supply is a way that does NOT create a trip hazard.
3. Connect the power cord to the power supply and check that the power cord has not been damaged during installation.
4. When the machine is clear of any obstruction. The main power switch may be turn ON to test the operation. Turn the switch OFF when the machine is not in operation.



## OPERATION

 **CAUTION:** Always wear proper safety equipment such as eye protection with side shields, respirator, and hearing protection.

1. Select spindle that is smaller than the curve to be sanded.
2. Use an insert plate that comes closest to the spindle without touching it.
3. Make sure that spindle is properly positioned in taper sleeve socket. With the wrench provided, tighten the nut.



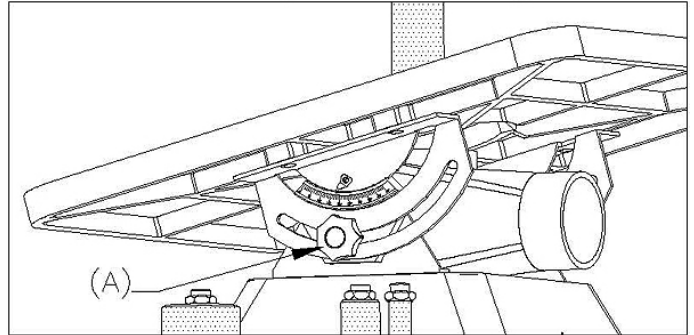
**Note:** *Never over tighten; it may be difficult to remove the spindle later.*

4. When table is set at a 90° angle, sanding may be done from any corner, or location on table around spindle.
5. When table is positioned at any angle other than 90°, it is necessary to position the work piece over the centerline, as shown on table surface.
6. Always lock the table with the hand nut when setting at any angle, also to prevent movement lock the tilting gear shaft.
7. Always loosen both table lock and tilting gear lock before changing the angle position of the table. Never force the table if it does not tilt easily, reason may be that the locks are still engaged. Never attempt to over ride the stop locks, this will cause damage to the tilting performance.
8. A backing board is recommended when sanding thin pieces of metal or any other material. A backing board can be easily constructed by using a piece of wood the length of the table, pushing it into the spindle until a half circle is formed. Clamp each end of the board to the table and proceed to sand the thin material.
9. Before leaving the machine, remove any particles or pieces left over from sanding, and return the table to the 90° position.



### Tilting the Table

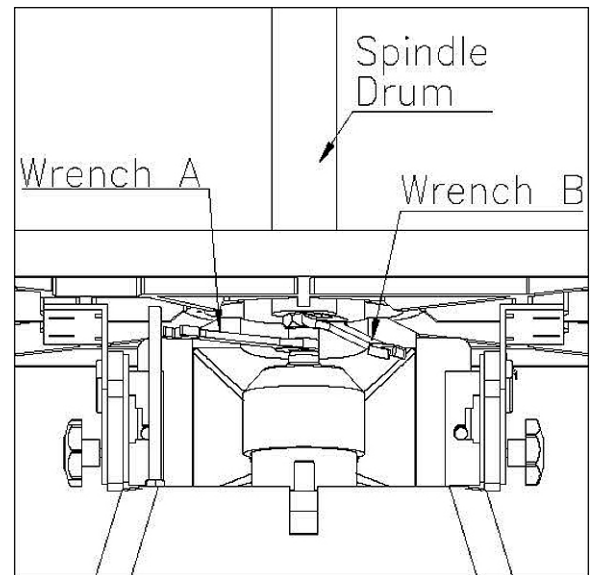
1. Loosen the two table lock knobs (A), located under the table at both sides of the machine.
2. Tilt the table forward to the desired angle with your hands.
3. An angle scale is provided at the right side of the trunnion to indicate the degree of table tilt.
4. Tighten the two table lock knobs securely after the table degree has been adjusted.



### Mounting Spindle Drum

**⚠ WARNING: ALWAYS disconnect power to the machine before changing spindles or working on it for any reason.**

1. Disconnect the sander from the power source.
2. Select the proper diameter of spindle drum.
3. Clean the taper part of the spindle drum before mounting it into the spindle.
4. Use an open-end wrench to lock the spindle by holding its flat surface. At the same time, use another open-end wrench to tighten the spindle drum.
5. Lift straight upward on the spindle drum to remove it.
6. Install the spindle squarely into the chuck.
7. Tighten using two wrenches. Do not over tighten the spindle drum or it will be causing removable problem.





## SELECTION GUIDE FOR DRUM TO TABLE INSERT

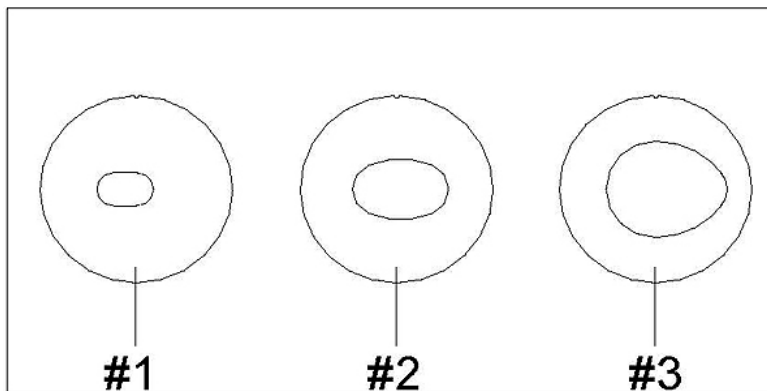
This machine is furnished with 5 drums. The range of drum diameter is from 1/4" to 2" (6.35 – 50.4mm). If the drum diameter is changed, then the table insert needs to be changed to the proper size.



**WARNING:** Failure to use the correct insert with the corresponding drum may result in injury.

The table below shows which table insert to use for various drum diameters.

Drum Number	Drum Dimension	Table Insert
#1	1/4" Dia. x 6" long	#1
#3	1/2" Dia. x 6" long	#1
#4	5/8" Dia. x 6" long	#1
#7	1 1/2" Dia. x 5.5" long	#2
#8	2" Dia. x 5.5" long	#3





## MAINTENANCE



**WARNING:** Make sure the electrical power is disconnected before working on the machine.  
Maintenance should be performed on a regular basis by qualified personnel.  
Always follow proper safety precautions when working on or around any machinery.

- Check daily for any unsafe conditions and fix immediately.
- Check that all nuts and bolts are properly tightened.
- On a weekly basis clean the machine and the area around it.
- To keep spindle sander in perfect condition, clean machine and attachments at all times.
- Clean tapered sleeves and tapered socket before use, this will protect spindle sleeves from nicks.
- Bent sleeves are easily straightened by placing them in the tapered socket and slipping a small pipe over the steel shaft. Using a dial indicator check that it is in correct position.
- Check gearbox for proper oil level (Approx. 1/4 up on sight glass).
- We recommend that a small amount of grease be applied to table tilting screw once a month.
- No lubrication is required for the bearings, they are permanently lubricated.
- Apply rust inhibitive lubricant to all non-painted surfaces when the machine will not be used for an extended period of time.



**Note:** *Proper maintenance can increase the life expectancy of your machine.*



## TROUBLESHOOTING

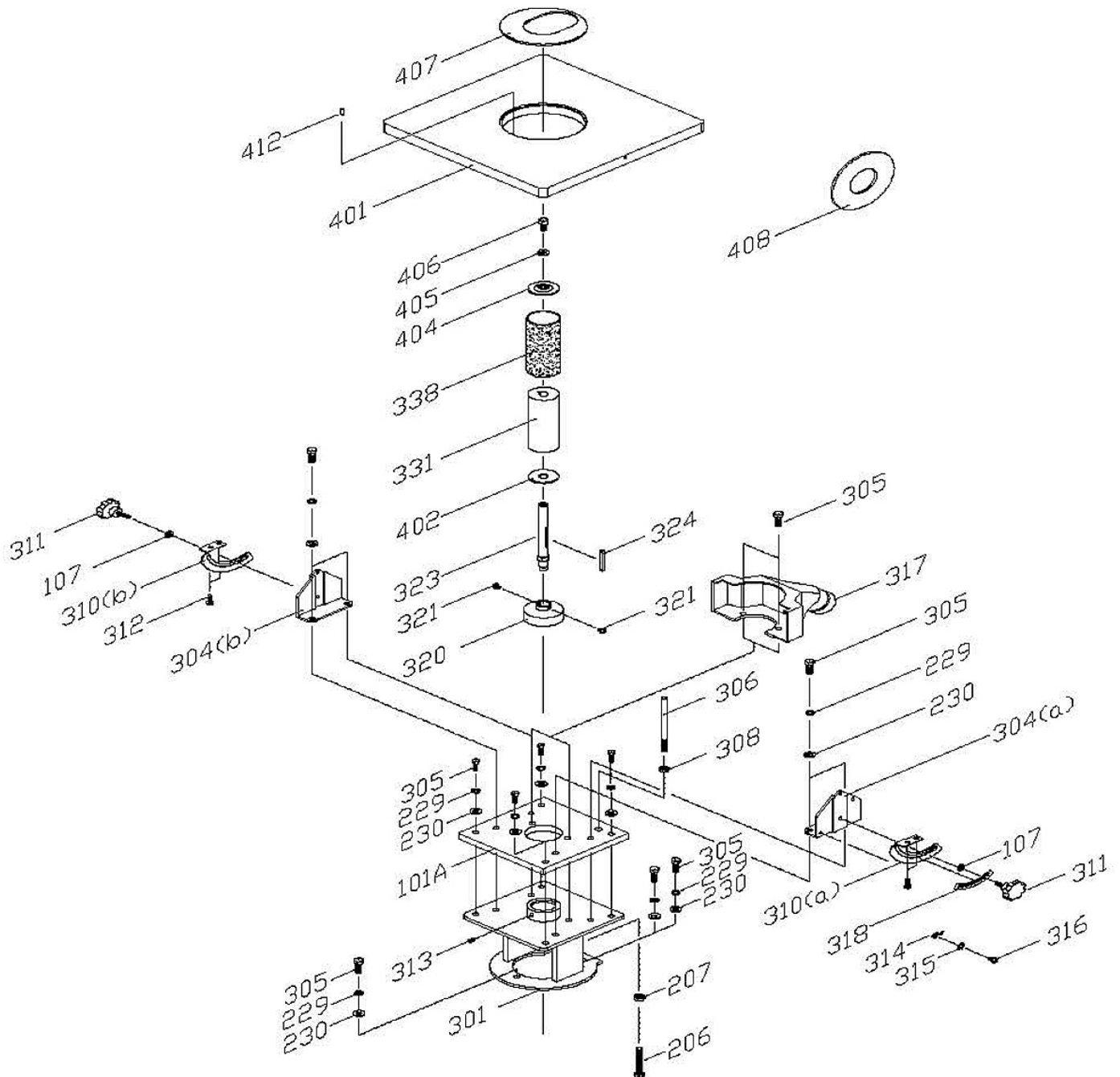


**WARNING:** Make sure the electrical disconnect is OFF before working on the machine.

TROUBLE	CAUSES	CORRECTION
Motor does not run when power switch is turned "ON".	Switch is burned out.	Replace the switch.
	Connection wire is loose or damaged.	Tighten or replace the wire.
Motor does not run at full speed.	Power voltage is too low.	Test voltage.
	2. Motor is damaged.	Check and repair motor.
Motor does not reach full power.	Incorrect power wiring.	Replace with the correct size power wiring.
	Overload.	Reduce sanding load.
Motor overheating	Motor is dirty.	Clean motor.
	Motor is damaged.	Check and repair motor.
Excessive machine vibration	Machine is incorrectly leveled.	Adjust machine leveling
Mark on workpiece	Sanding drum is damaged.	Replace the sanding drum.
	Sanding cloth on drum is worn in some areas.	Replace sanding cloth
Sanding drum turns in wrong direction	Wrong phase or voltage	Make sure the phase and voltage comply with machine requirement.
Burns on workpiece	Wrong abrasive grit on sanding cloth	Use coarser grit to remove more material from workpiece.

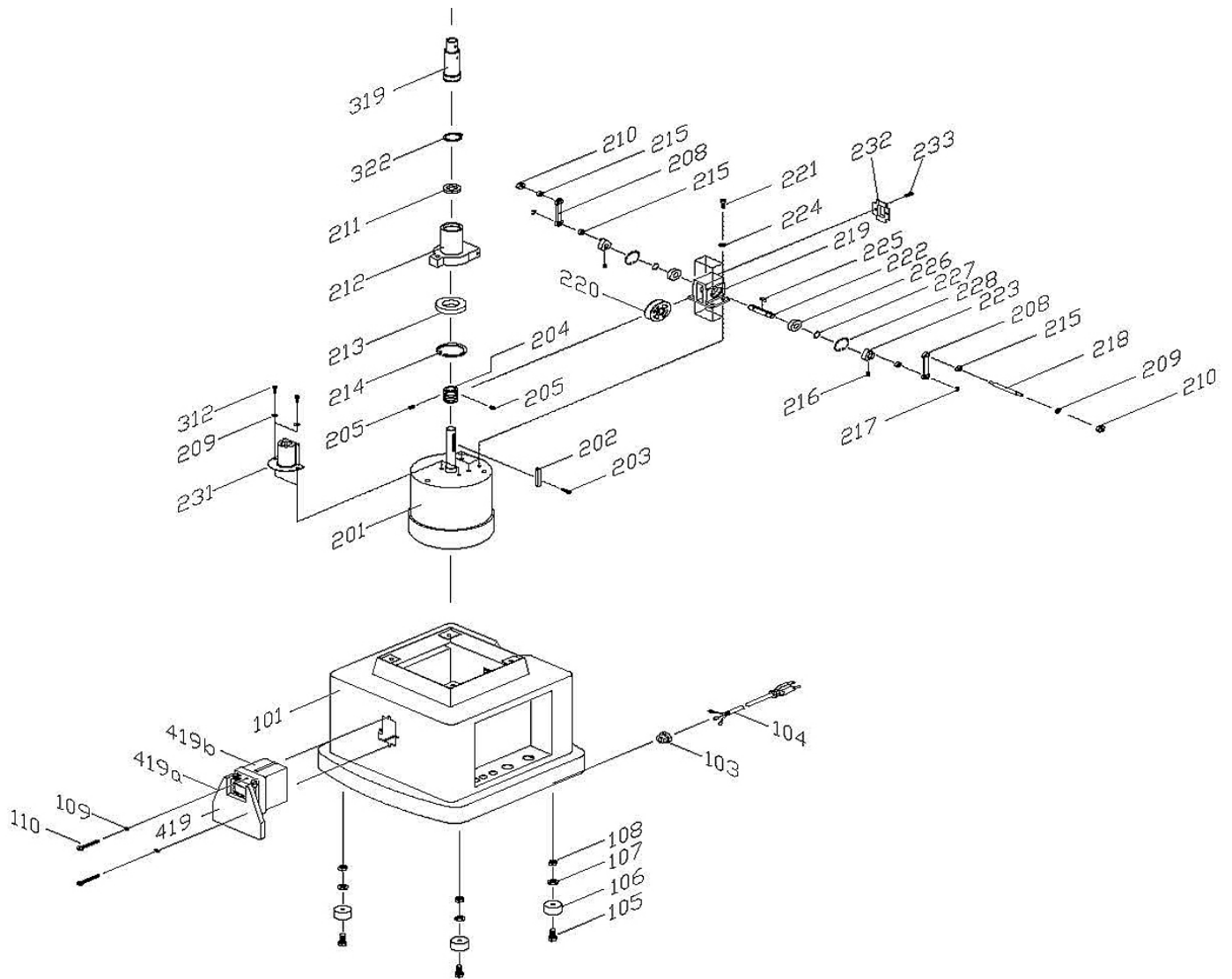


# PARTS DIAGRAM 1





## PARTS DIAGRAM 2







**Parts List**

Item	Part No.	DISCRIPTION	Qty.
101	30201001G	BASE	1
101a	30201001a	TOP PLATE	1
102	W0000000	SWITCH	1
103	S1006P1	STRAIN RELIEF	1
104	L000000	POWER CORD	1
105	S0030622M	PHILIPS HEAD SCREW	4
106	10107098	RUBBER FEET	4
107	S0210403	FLAT WASHER	7
108	S0011600M	HEX. NUT	4
109	S00303040	PHILIPS HEAD SCREW	2
110	S0030318	PHILIPS HEAD SCREW	2
111	S0220300	GEAR WASHER	2
112	S0110300	HEX. NUT	4
114	30201002	SWITCH BOX	1
201	M000000	MOTOR	1
202	S0430650	KEY	1
203	S0040415M	FLAT HEAD SCREW	1
204	30202001	WORM SHAFT	1
205	S0050610M	SET SCREW	2
206	30202002	TRANSMISSION ROD	1
207	S0110800M	HEX. NUT	1
208	30202003	CONNECTING ROD	2
209	S0210303	FLAT WASHER	4
210	S0120500M	LOCKING NUT	2
211	C1106804	BEARING	1
212	30202004	TRANSMISSION	1
213	C1106006	BEARING	1
214	S0520059	C RING	1
215	30202005	BUSHING	4
216	S0050506M	SET SCREW	2
217	S05ETW04	E RING	2
218	30202020	CONNECTING SHAFT	1



Item	Part No.	DISCRIPTION	Qty.
219	30202006p	BRACKET	1
220	30202007p	WORM	1
221	S0010615M	HEX. SOCKET CAP SCREW	4
222	30202008P	SHAFT	1
223	30204010	CRANK SHAFT	2
224	S0230400	SPRING WASHER	4
225	S0400415	KEY	1
226	C1106001	BEARING	2
227	S0521200	C RING	2
228	S0530028	C RING	2
229	S0230506	SPRING WASHER	11
230	S0210500C	FLAT WASHER	11
231	30202009	OIL CAP	1
232	30202012	STORAGE PLATE FOR DRUMS	1
233	30202013	STORAGE PLATE FOR TABLE INSERTS	1
234	30202014	OIL CAP	1
235	S0030304	PHILIPS HEAD SCREW	2
301	30203001	HOUSING	1
304a	30203003	BRACKET (RIGHT)	1
304b	30203003a	BRACKET (LEFT)	1
305	S0020825M	HEX. SCREW	13
306	30203004	TOP PLATE	1
308	S0020610M	HEX. SCREW	1
310a	40501001	SUPPORT TRUNNION (RIGHT)	1
310b	40501011a	SUPPORT TRUNNION (LEFT)	1
311	S0070615M	LOCK KNOB	2
312	S0010515M	HEX. SOCKET CAP SCREW	6
313	S0050605M	SET SCREW	1
314	10102022	POINTER	1
315	S0220400	GEAR WASHER	1
316	S0030510M	PHILIPS HEAD SCREW	1
317	30203005	DUST COVER	1
319	30203006	MAIN SPINDLE	1
320	30203007	SWITCH COVER	1



Item	Part No.	DISCRIPTION	Qty.
321	S0030505M	PHILIPS HEAD SCREW	2
322	S0520027	C RING	1
323	30203008	5/8" SANDING SPINDLE	3
324	S0400550	KEY	1
331	30203015	2" RUBBER BUSHING	1
332	30203014	1-1/2" RUBBER BUSHING	1
334	30203017	1/2" SANDING SPINDLE	1
335	30203018	1/4" SANDING SPINDLE	1
337	30203019	1/2" CLAMP	1
338	30203021	2" SANDING SLEEVE	1
339	30203010	1/4" SANDING SLEEVE	1
340	30203011	1/2" SANDING SLEEVE	1
341	30203012	5/8" SANDING SLEEVE	1
342	30203013	1-1/2" SANDING SLEEVE	1
344	30203019a	5/8" CLAMP	1
345	30203019b	1/4" CLAMP	1
401	30204001	TABLE	1
402	20301002	2" LOWER FOLLOWER PLATE	2
403	20801002	1-1/2" UPPER FOLLOWER PLATE	1
404	20301044	2" UPPER FOLLOWER PLATE	1
405	S0210500	FLAT WASHER	1
406	S0110500L	HEX. NUT	1
407	30204003	2" TABLE INSERT (OVAL)	1
408	30204004	2" TABLE INSERT (ROUND)	1
409	30204005	3/4" TABLE INSERT (ROUND)	1
410	30204006	3/4" TABLE INSERT (OVAL)	1
412	S0310312	SPRING PIN	1
413	30201003	WRENCH	1
414	10105091	WRENCH	1



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