

**PALMGREN**<sup>®</sup>  
a CH Hanson brand



## **6" x 12" Surface Grinder**

*(Shown with optional Magnetic Chuck 9682130 and stand 9670109)*

**Model 9682122**

**PALMGREN**<sup>®</sup>  
*a CH Hanson brand*

**PLEASE READ AND SAVE  
THESE INSTRUCTIONS.  
READ CAREFULLY  
BEFORE ATTEMPTING  
TO ASSEMBLE, INSTALL,  
OPERATE OR MAINTAIN THE  
PRODUCT DESCRIBED.**

**PROTECT YOURSELF AND  
OTHERS BY OBSERVING ALL  
SAFETY INFORMATION. FAILURE  
TO COMPLY WITH INSTRUCTIONS  
COULD RESULT IN PERSONAL  
INJURY AND/OR PROPERTY  
DAMAGE! RETAIN INSTRUCTIONS  
FOR FUTURE REFERENCE.**

**PLEASE REFER TO BACK COVER  
FOR INFORMATION REGARDING  
DAYTON'S WARRANTY  
AND OTHER IMPORTANT  
INFORMATION.**

**Model #:** \_\_\_\_\_

**Serial #:** \_\_\_\_\_

**Purch. Date:** \_\_\_\_\_

## GETTING STARTED

### Save this manual

You will need this manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

### Structural requirements



Make sure all supporting structures and load attaching devices are strong enough to hold your intended loads. If in doubt, consult a qualified structural engineer.

### Electrical requirements



The power supply to the Model 9682122 Surface Grinder needs to be 115V, single phase.

### Tools needed

Standard professional mechanic's hand tool set (i.e. hammer, screwdrivers, wrenches, socket wrenches, pliers, etc.).

## UNPACKING

When unpacking, check to make sure all parts listed below are included. If any parts are missing or broken, please contact your local retailer.

**IMPORTANT:** Many unpainted steel surfaces will have been coated with a protectant. To ensure proper fit and operation, remove the coating. Coating can be easily removed with mild solvents, such as mineral spirits and a soft cloth. Avoid getting solution on paint or any of the rubber/plastic parts. Solvents may deteriorate these finishes. Use soap and water on paint, plastic or rubber components. After cleaning, cover all exposed surfaces with a light coating of oil.

**CAUTION** *Never use highly volatile solvents. Avoid getting cleaning solution on paint as it may tend to deteriorate these finishes. Use soap and water on painted components.*

### Contents:

- Magnetic table (optional 9682130)
- Tool box with the following contents:
  - Handles (2)
  - Oil can
  - Diamond dresser
  - End bolt
  - Spanner
  - Hex key

### Unpack



Remove all the over packing materials, but leave unit attached to its pallet. Do not discard packing materials until after the machine has been inspected for damage and completeness. Locate any loose parts and set them aside.

## Inspect



- After unpacking the unit, carefully inspect for any damage that may have occurred during transit. Check for loose, missing or damaged parts. Shipping damage claims must be filed with the carrier.
- All tools should be visually inspected before use, in addition to regular periodic maintenance inspections.
- Be sure that the voltage labeled on the unit matches your power supply.

## SAFETY RULES

**WARNING** *Completely read and understand this owner's manual before assembly or tool operation. Read and understand the warnings shown on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury or death.*



**PROPOSITION 65 WARNING:** Some dust created by using power tools contain chemicals 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 and cement and other masonry products
- Arsenic and chromium from chemically-treated lumber

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

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

### Preparing for your job

- Wear proper apparel. Do not wear loose clothing, neckties, rings, bracelets or other jewelry which may get caught up in moving parts of machine. Do NOT wear gloves.
- Wear protective hair covering to contain long hair.
- Wear safety shoes with non-slip soles.
- Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are not safety glasses. Use guards and eye shields.
- Wear ANSI face mask or dust mask.
- Wear ANSI approved ear protection during extending use or anytime noise levels become annoying.

## SAFETY RULES (CONTINUED)

- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.
- Focus your attention completely on your work. Looking around, careless actions and other distractions can result in serious injury.

### Preparing the work area for your job

- Do not use this machine in dangerous environments. Do not use it in damp or wet locations. Do not expose it to rain.
- Keep the work area clean. Cluttered work areas and work benches invite accidents. Keep the area around the machine clean of scrap metal, oil and grease.
- Keep visitors at a safe distance from work area.
- Keep children out of workplace. Make workshop childproof. Use padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.
- Provide adequate space around the surface grinder and light the area properly with non-glare, overhead lighting.
- Make certain the surface grinder is securely anchored to a suitable base or floor stand before use.

### Maintaining your tool

- Unplug and disconnect the tool completely from its power supply before performing any service, maintenance, repair or adjustments.
- Consult manual for specific maintenance and adjustment procedures.
- Keep tool lubricated and clean for safest operation.
- Read and understand warnings posted on the machine and in this manual. Replace the warning labels if they become obscured or removed. Failure to comply with all of these warnings can result in serious injury.
- Before turning on the machine, check for damaged parts. Guards or other parts that are even slightly damaged should be carefully examined to ensure they will function correctly. Check for alignment of moving parts, binding, breakage, mounting issues and any other conditions that may affect the tools operation. Replace any guard or damaged part that does not function properly before using the tool.
- Maintain this tool, its attachments the grinding wheel with care.

### Know how to use your tool

**⚠ WARNING** *The operation of any power tool can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety goggles complying with United States ANSI Z87.1, before commencing power tool operation.*



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

- The Model 9682122 Surface Grinder is designed and intended for use by properly trained operators. You must

be familiar with the proper and safe operation of a surface grinder. Obtain proper training and knowledge before operating this machine.

- Do not use the Model 9682122 Surface Grinder for any use other than its intended application. Improper use of this tool revokes and voids any real or implied warranty. The manufacturer is not responsible for any injury that may result from improper use of the machine.
- Ensure the grinding wheel is solid and free from any flaws or cracks. You can perform a ring test by holding the grinding wheel with a wooden dowel rod through the arbor hole and lightly striking it with a wrench or hammer. The wheel should emit a clear “ping” sound. A damaged wheel will emit a dull sound. If there is any doubt of a wheel’s condition, replace it immediately.
- A damaged wheel is more likely to fly apart or explode upon machine start up. Do not stand in line with the wheel’s rotation upon start up.
- Grinding wheels operated at a speed faster than they are rated for can fly apart or explode causing injury or death. Before mounting a new wheel make sure the wheel’s RPM rating is equal to or more than the machines RPM rating.
- Heavy impact with a workpiece or trying to make a very deep cut can cause a wheel to break apart or explode. Do not jam a workpiece into the wheel to reduce this risk.
- Make sure your workpiece is held tight on the chuck. If the shape of the workpiece prevents it from laying flat, block the ends with appropriate clamps or vises.
- Only use wheel grinding wheel flanges that come supplied with the machine. Other flanges may not meet the required specifications for safety.
- Do not force an attachment to do a job it was not intended or designed for.
- Never work in an awkward position while using the machine. Maintain your balance. Never lean against the machine, over reach or use excessive force when working. You could tip or fall into the machine causing serious injury.
- Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
- Before connecting the machine to a power supply check to ensure the switch is in the OFF position.
- The machine must be properly grounded.
- Safety guards must be in place and operate properly in place at all times. If any guards, covers or safety devices are removed for maintenance purposes they must be replaced before using the machine.
- Never leave the machine running while it is unattended. Turn off the power and stay with the machine until it comes to a complete, full stop.
- Know your tool. Learn the tool’s operation, application and specific limitations. Never force the machine to do a task it was designed for.

- Use recommended accessories. Understand and obey all safety instructions supplied with accessories. The use of improper accessories may cause injury.
- Never connect a surface grinder to a dust collection system also being used by woodworking machines. The sparks and hot chips from the surface grinder can quickly ignite the woodworking dust cause fire or an explosion.
- Some materials such as magnesium, titanium and aluminum have flammable properties. Consult with the supplier of these materials for information on safe grinding procedures.

## SPECIFICATIONS

### Model 9682122 - 6" x 12" Surface Grinder

Motor	3/4 HP, Single Phase, 115V
Spindle Speed (RPM)	3,600
Table Size (L x W)	6" x 12"
T-Slot Size	1/2"
Wheel Size (Dia. x W x Bore)	7" x 1/2" x 1-1/4"
Maximum Longitudinal Grinding Length	12-1/2"
Maximum Cross Grinding Width	6-11/16"
Max. Spindle Centerline to Table Distance	11
Vertical Feed Graduation	0.0005"
Cross Feed Graduation	0.001"
Vertical Down Handwheel Per Rev.	0.0500"
Vertical Down Handwheel Per Grad.	0.0005"
Overall Dimensions (L x W x H)	41" x 28-3/4" x 38-3/8"
Net Weight, approx.	450 lbs.

## ASSEMBLY / INSTALLATION

### Power source

- The motor on this machine is designed for operation on the voltage and frequency specified. Normal loads will be handled safely on voltages not more than 10% above or below specified voltage.
- Running the unit on voltages which are not within the range may cause overheating and motor burn-out. Heavy loads require that the voltage at the motor terminals be no less than the voltage specified.
- Two push buttons control the power supply to the motor. Pushing the green button starts the motor and pushing the red button stops the motor.

### Electrical connections

**▲ WARNING** *Make sure unit is off and disconnected any from power source before any service or maintenance is made to the machine.*

**▲ WARNING** *This machine must be grounded. To avoid electrocution or fire, any repairs to electrical system should be only done by a qualified electrician, using genuine replacement parts.*

**▲ WARNING** *Do not permit your fingers to touch the terminals of the plug when installing or removing it from the outlet.*

### Electrical safety

- 1 This machine must be grounded in accordance with the National Electrical Code and local codes and ordinances. Any electrical work must be handled by a professional, qualified electrician. To help prevent and protect the user from shock, this machine must be properly grounded. Never operate the machine with damaged cords which increase the risk of electric shock.
2. Double insulated tools are equipped with a polarizing plug (one blade is wider than the other.) This plug will fit in a polarized outlet only one way. If the plug does not fit fully into the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.
3. Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system. Before plugging in the tool, be certain the outlet voltage supplied is within the voltage marked on the nameplate.
3. Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded. If operating the power tool in damp locations is unavoidable, a Ground Fault Circuit Interrupter must be used to supply the power to your tool.
4. Don't expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock
5. Do not abuse the cord. Never use the cord to carry the tool or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.

### Extension cords

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

**Extension length**

Wire Size	A.W.G.
Up to 25 ft.	16
25 to 100 ft.	14

**NOTE:** Using extension cords over 100 ft. long is not recommended.

**ASSEMBLY/INSTALLATION SET UP****Lifting and setting up your machine**

**⚠ WARNING** *Make certain that slings, cables, chains, forklifts or other load suspending gear or machines used to move this unit are properly rated to handle the weight. The Model 9682122 Surface Grinder is heavy.*

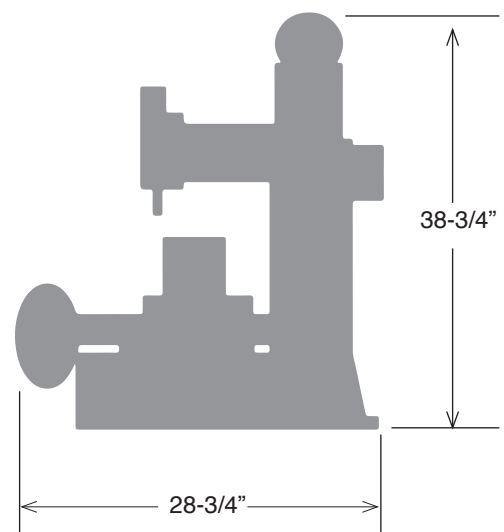
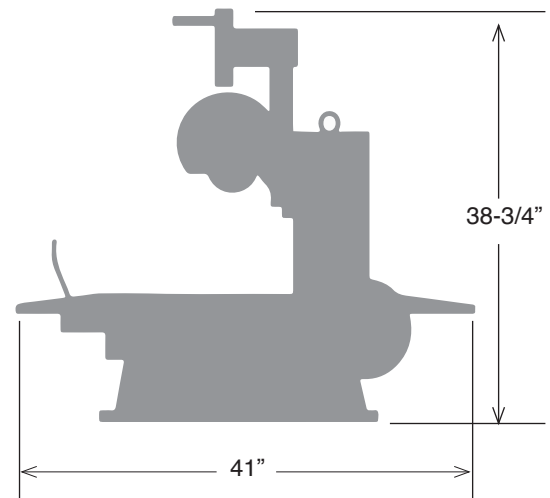
**⚠ CAUTION** *The machine must be properly secured and anchored to a base or stand before use. Make sure that it is supported equally on all four corners. Failure to comply may result in the machine twisting and causing binds in the working table.*

1. Remove any crating or overpacking materials which may be covering the machine. Leave the machine attached to the pallet.
2. Remove all accessory items from the pallet or machine table. Compare these items with the listed on page 3.
3. The machine must be placed on a solid base or stand free from any vibrations transmitted from adjacent machines.
4. Check all lock handles on the machine to ensure they are tight. The table of the machine must be secure before moving. Insert and tighten the lifting eyebolt.
5. Remove all the nuts and/or bolts securing the machine to the pallet.
6. Center an hydraulic lift, forklift or other suitable overhead lifting device and sling arrangement over the machine.
7. Carefully lift the machine off the pallet using the supplied eyebolt. Lift the machine no higher than necessary to clear the hold-down hardware and pull the pallet out of the way. **DO NOT** place your hands or feet underneath the machine when removing the pallet.
8. Place the machine into a final position onto the provided base or stand.

**Mounting and leveling**

The surface grinder must be mounted and leveled for accurate performance.

- Secure the machine onto the supplied cabinet base using bolts provided with the tool.
- Place a highly accurate spirit level on the mounting chuck. Shim the corners to level the machine to the left and right and front and back. A level machine is crucial in providing accurate machine operation.

**Machine dimensions**

**NOTE:** The above diagrams show the reasonable approximate dimensions of the machine and its parts. When determining a final location for your machine ensure there is enough clearance for both the operator and for technicians who will service the machine. Also consider any larger workpieces that would extend beyond the machine's table and require extra space.

## INSTALLATION

**▲ WARNING** *Make sure unit is off and disconnected from power source before any attaching any components to the machine.*

### Mounting the magnetic table

The magnetic table is mounted to the chuck by two T-slot bolts on either end of the table.

### Dressing a grinding wheel

Superior grinding results can only be achieved with a properly balanced and dressed wheel. Do not assume a wheel will run true on the spindle if it is new or has not been separated from the hub.

Dressing the wheel correctly will save you from wasting grinding abrasive and shattering the dressing tool diamond. Additionally, with a properly balanced and dressed wheel you can rest assured that if you have any finishing problems, the grinding wheel will not be the culprit.

Positioning is critical for the dressing tool so you will not shatter the diamond or have poor results. For best results and safe use, the dressing tool must be positioned in the trailing zone of the wheel. If the tool is positioned on the leading side of the wheel, the diamond will be shattered or even grabbed and drawn into the grinding wheel, causing severe injury or property damage.

To dress a grinding wheel:

1. Insert the diamond-tipped dressing tool into its base and use a 4mm hex to tighten the locking set screw.
2. Lower the headstock so the wheel is approximately 0.20" lower than the tip of the dressing tool.
3. Put the dressing tool into a machine vise that had been securely mounted to the magnetic table. Position the tip of the dressing tool at the trailing side of the wheel and move the table inward until the diamond tip slightly touches the edge of the grinding wheel. Verify by rotating the wheel by hand and listening for contact.
4. Move the cross slide so the diamond tip is free of the grinding wheel. Start the grinder and use the cross slide so the diamond sweeps across the wheel at a depth between 0.00039" - 0.001".

### Mounting / removing a grinding wheel

1. Remove the screws holding the wheel front cover and remove the wheel cover.
2. Ring test the grinding wheel, even if it is new. If the wheel is free of cracks, slide the wheel onto the hub.
3. Inspect the paper washers on both sides of the grinding wheel. These paper washers serve as cushions between the retaining washer and the grinding wheel seat. Without the washers, cracks can be spawned from the center of the wheel when the retaining nut is tightened. Over time, these cracks can radiate outward and the wheel may explode causing possible injury.



**NOTE:** If you need to replace or install new paper washers, replacements can be cut out of any thick construction paper or card stock. Regular notebook paper or paper from a copy machine is not acceptable; it is too thin to provide the cushion required.

4. Wipe the grinding wheel seat, so it is perfectly clean, and no paper is left behind.



**NOTE:** A slight wiping of the spindle threads, grinding wheel seat, and hub with a lightly-oiled rag is acceptable to prevent rust.

5. Insert the wheel and position the spindle wrenches on the spindle lug and the retaining nut. The threads are left-handed so the retaining nut is tightened counterclockwise.
6. To remove the wheel reverse these instructions.

### Balancing a grinding wheel

1. Attach the wheel to the surface grinder.
2. Dress the wheel (see previous instructions).
3. Remove the dresser.
4. Turn off the surface grinder and disconnect the machine from power source.
5. Remove the wheel from the machine.
6. Wipe off the balancing arbor and insert it into the wheel assembly.
7. Place the wheel assembly on the balancing stand and mark its gravity center "S" with chalk.
8. Insert a balancing weight "G" directly opposite of gravity center "S".
9. Determine which side is heavier, "G" or "S".
10. Insert two balancing weights "K" on the lighter side. If the wheel is still out of balance, adjust "K" for balance.
11. After balancing, do a final dressing of the grinding wheel.

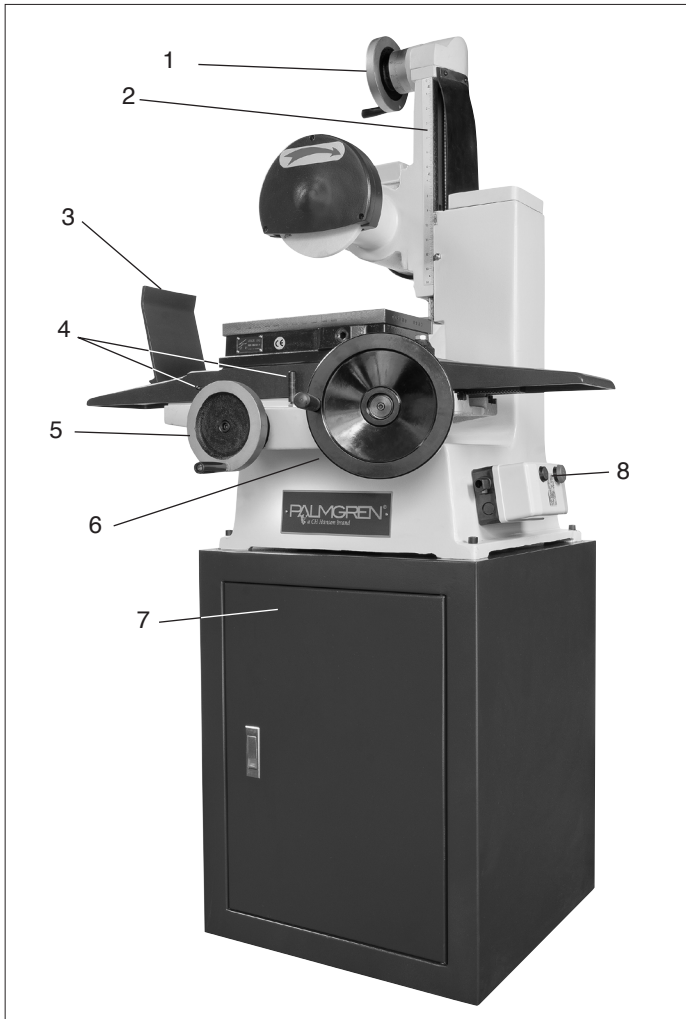
## OPERATION

**⚠ WARNING** *Make sure unit is off and disconnected from its power source before attaching any components, servicing or maintenance being made on the machine.*

**⚠ WARNING** *Always wear safety glasses complying with U.S. ANSI Z87.1 before beginning any power tool operation.*

### The machine's functional parts

To properly operate the Model 9682122 Surface Grinder, you must familiarize yourself with all of the machine's controls.



1. Vertical down feed handwheel
2. Vertical measurement scale
3. Spark shield
4. Table dog end stop dogs (end stop on right not shown)
5. Table travel handwheel - X-axis (left and right)
6. Table cross feed handwheel - Z-axis (in and out)
7. Cabinet base (optional 9670109)
8. Spindle start/stop buttons

\* Shown with optional Magnetic Chuck 9682130

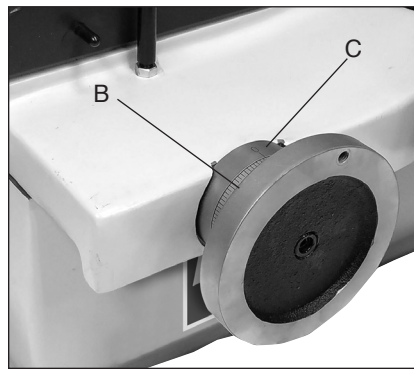
### Turning on the surface grinding machine



- The on/off buttons (A) are located on the right side of the machine.
- Push the on button to start the machine and the off button to stop the machine.

## OPERATION - TABLE AND GRINDING HEAD MOVEMENT

### Chuck travel X-axis (left and right)



- The table X-axis handwheel (B) is located on the lower left side of the machine. The handwheel and moves the chuck left and right by rack and pinion gearing
- Clockwise rotation of the handle feeds

the table to the right, counterclockwise rotation feeds the table to the left.

- The distance moved by the handwheel can be read on the inside measurement ring (C). The ring can be set to zero (0.00) for a reference point before an operation is undertaken
- The left / right distance of the table travel is set by the table end dog stops. The table will stop its travel based on their positions.

### Chuck travel Z-axis (in and out)

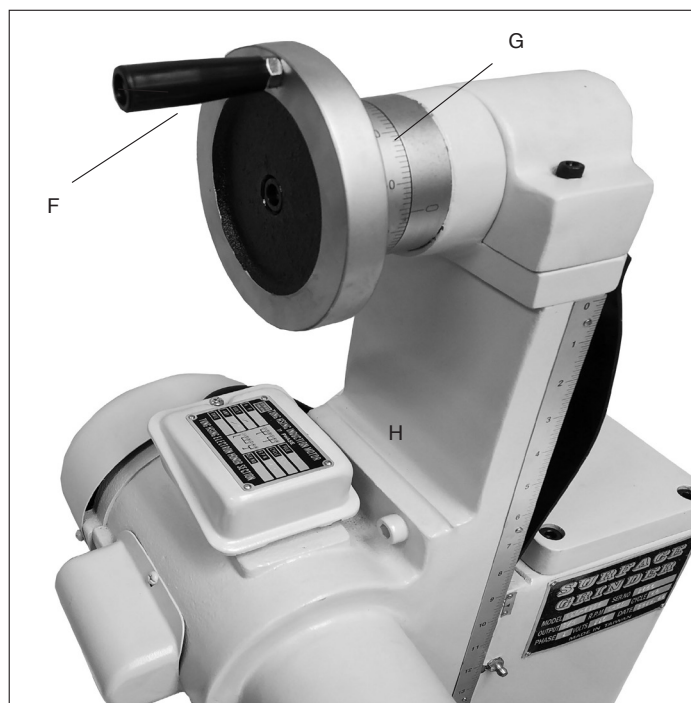


- The table Z-axis handwheel (D) is located on the lower right side of the machine. The handwheel and moves the chuck and out.
- Clockwise rotation of the handle feeds the chuck in and counterclockwise rotation out.

- The handwheel can be locked into position by tightening up the locking knob (E).

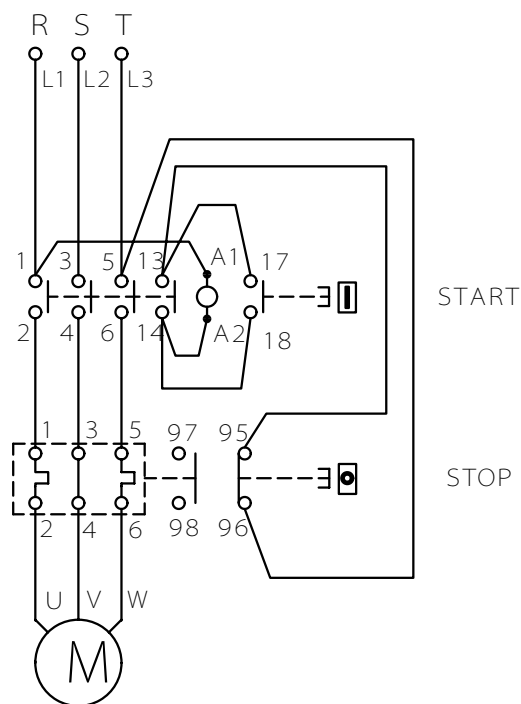


**Table head travel Y-axis**



- The table Y-axis handwheel is located (F) at the top of the machine. The handwheel moves the grinding wheel head up and down.
- Clockwise rotation of the handle feeds the head down and into the workpiece. Counterclockwise rotation raises it up.
- The distance moved by the handwheel can be read on the inside measurement ring (G). The ring can be set to zero (0.00) for a reference point before an operation is undertaken.
- The scale on the side of the column shows the distance between the grinding wheel and chuck (H).

**WIRING DIAGRAM - MODEL 9682122 SURFACE GRINDER**



## TRUBLESHOOTING GUIDE

Symptom	Possible Cause(s)	Corrective Action
Frequent wave on the surface of the workpiece	Excess machine vibration	<ol style="list-style-type: none"> <li>1. Make sure machine is level and on a solid surface</li> <li>2. Check the spindle</li> </ol>
	Grinding wheel is not balanced.	Dress and balance the wheel
	Wheel is too hard.	<ol style="list-style-type: none"> <li>1. Use a softer wheel</li> <li>2. Use a rough wheel</li> <li>3. Reduce the feed rate</li> </ol>
Minor scratch on the surface.	Improper operation.	<ol style="list-style-type: none"> <li>1. Dress the wheel. Make sure wheel edge is parallel with workpiece.</li> <li>2. Slow down the table crossfeed</li> <li>3. Make sure workpiece is securely fastened to the chuck</li> </ol>
	Improper dressing of wheel	<ol style="list-style-type: none"> <li>1. Tighten the dresser</li> <li>2. Use proper dressing speed</li> <li>3. Don't dress too deep at one time</li> </ol>
Burning spots and cracks	Improper operation	<ol style="list-style-type: none"> <li>1. Reduce the feed amount</li> <li>2. Use the proper table cross feed rate.</li> </ol>
	Improper heat treatment	Perform heat treating again
	Unsuitable grinding wheel	<ol style="list-style-type: none"> <li>1. Dress the wheel finely and frequently</li> <li>2. Use a softer and rougher wheel</li> </ol>
Poor grinding ability, wheel clogs and workpiece shows burns	Wheel is too hard	<ol style="list-style-type: none"> <li>1. Increase the table and crossfeed rates</li> <li>2. Reduce the wheel diameter or width</li> <li>3. Use a sharp diamond for dressing</li> <li>4. Use a rougher wheel</li> </ol>
Wheel dulls and grit falls off	Wheel is too soft	<ol style="list-style-type: none"> <li>1. Reduce table and crossfeed rates</li> <li>2. Increase wheel diameter if possible</li> <li>3. Lightly dress the wheel, repeatedly</li> </ol>

## MAINTENANCE

**⚠ WARNING** *Improper or incorrect maintenance can result in serious personal injury and damage to the surface grinder. Only qualified maintenance people should carry out repair work on the machine*

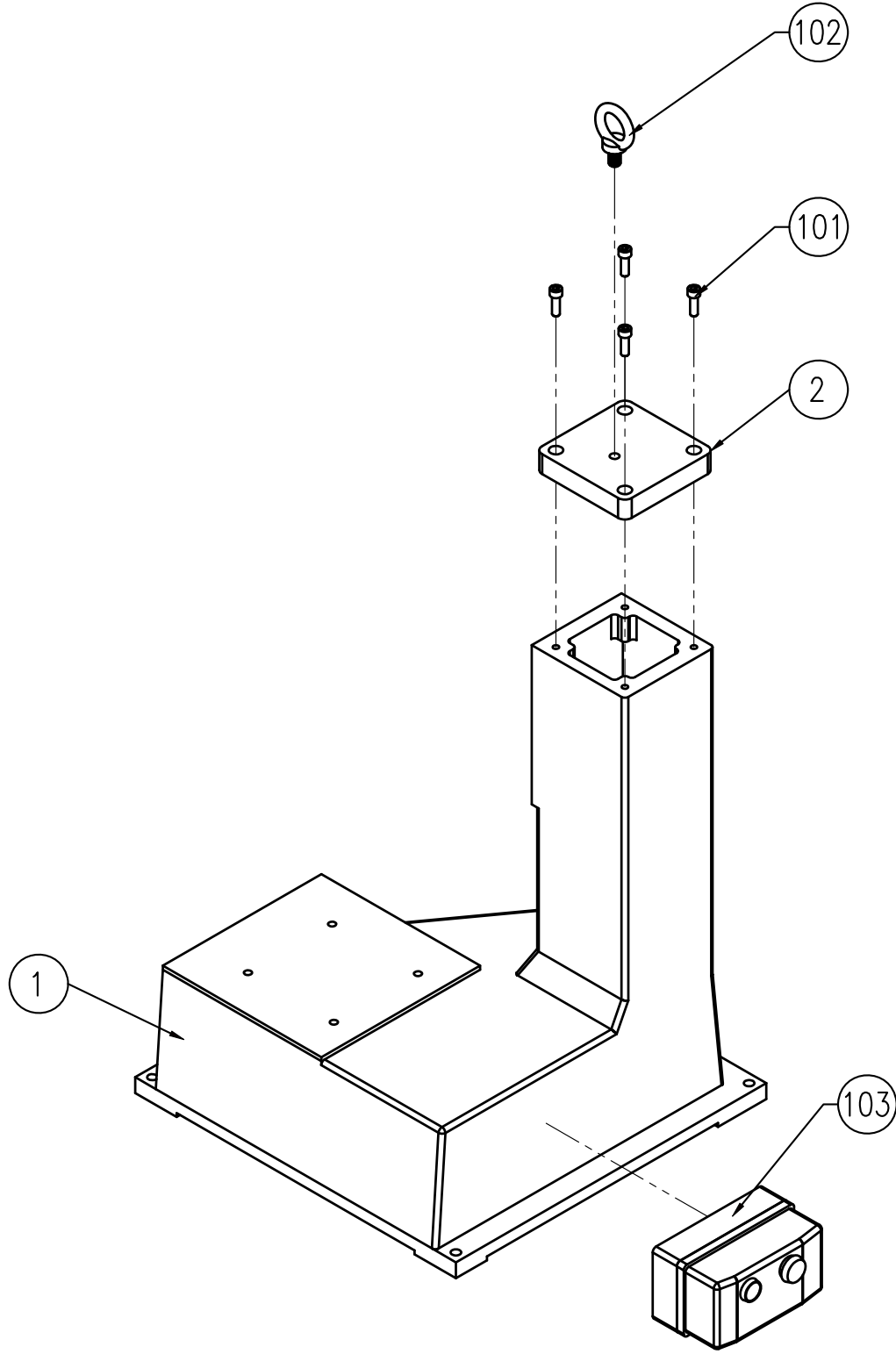
### **Daily**

- Carefully inspect the grinding wheel for any flaws or cracks. If there are any indications of issues, remove the grinding wheel and perform a ring test.
- Clean the table area, table dust bin and wheel cover of any grinding dust.

### **Weekly**

- If a dust extraction system is attached, check to make sure the unit does not need emptying.

➤ REPAIR PARTS ILLUSTRATION FOR MODEL 9682122 - 6" X 12" SURFACE GRINDER - BASE ASSEMBLY



**For Repair Parts, call 1-800-827-3398**

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

## REPAIR PARTS LIST FOR MODEL 9682122 – 6” X 12” SURFACE GRINDER - BASE ASSEMBLY

Ref. No.	Description	Part No.	Qty.
1	Base	N/A	1
2	Cover	9639947.01	1
101	Socket Head Cap Screw	*	4
102	Lifting Ring	9639948.01	1
103	Electricity Box	9639949.01	1

Ref. No.	Description	Part No.	Qty.
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GETTING STARTED

SAFETY / SPECIFICATIONS

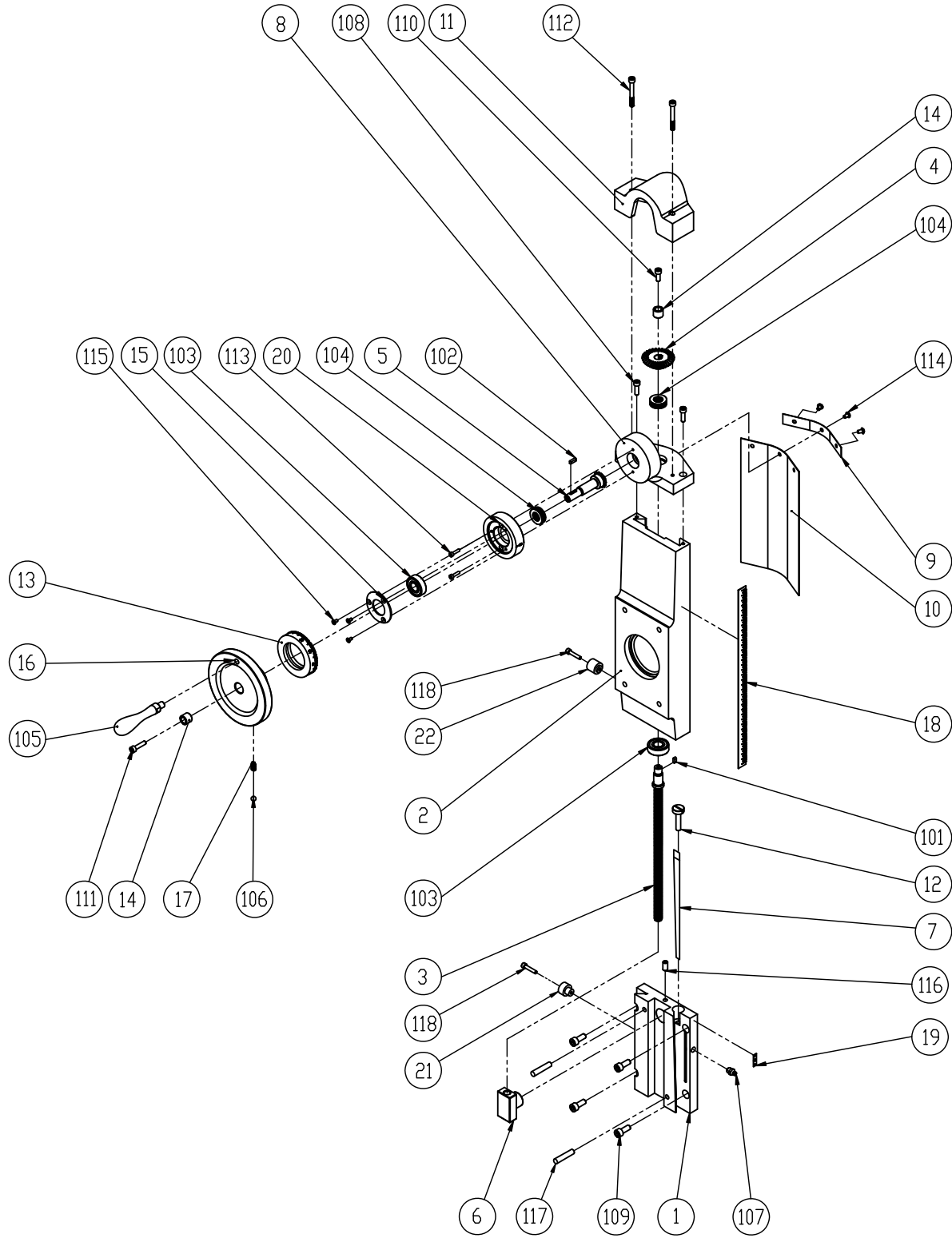
ASSEMBLY / INSTALLATION

OPERATION

TROUBLESHOOTING

MAINTENANCE / REPAIR

**REPAIR PARTS ILLUSTRATION FOR MODEL 9682122 - 6" X 12" SURFACE GRINDER - ELEVATING ASSEMBLY**



Please provide following information:  
 -Model number  
 -Serial number (if any)  
 -Part description and number as shown in parts list

**For Repair Parts, call 1-800-827-3398**

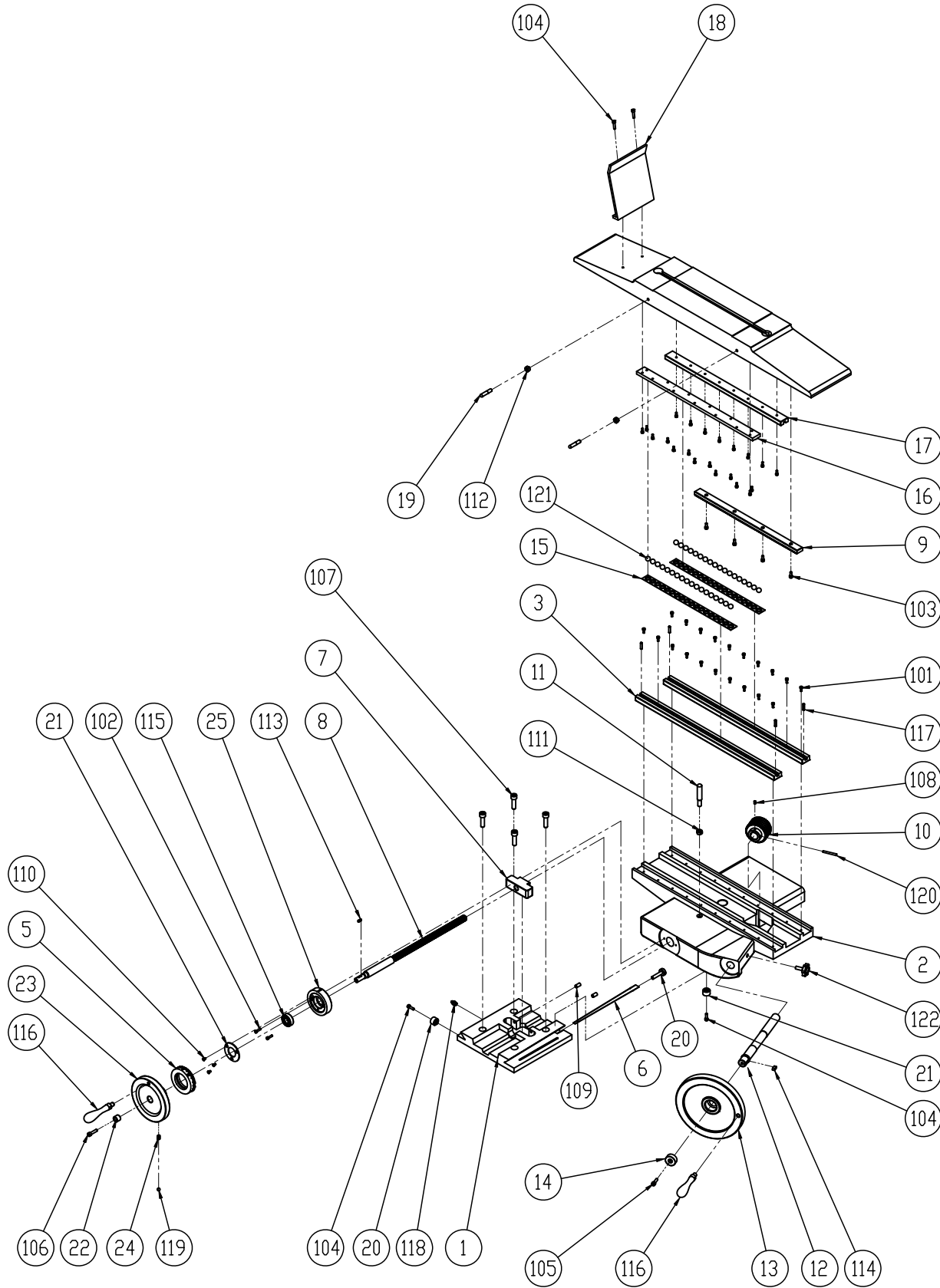
## REPAIR PARTS LIST FOR MODEL 9682122 – 6” X 12” SURFACE GRINDER - ELEVATING ASSEMBLY

Ref. No.	Description	Part No.	Qty.
1	Elevating Base	9639950.01	1
2	Elevating Dovetail Groove	9639951.01	1
3	Elevating Screw	9639952.01	1
4	Gear	9639953.01	1
5	Gear Shaft	9639954.01	1
6	Elevating Nut	9639955.01	1
7	Dovetail	9639956.01	1
8	Gear Seat	9639957.01	1
9	Plate	9639958.01	1
10	Cover	9639959.01	1
11	Cover	9639960.01	1
12	Adjust Screw	9639961.01	1
13	Dial	9639962.01	1
14	Washer	9639963.01	2
15	Locking-Washer	9639964.01	1
16	Hand Wheel	9639965.01	1
17	Spring	9639966.01	1
18	Scale	9639967.01	1
19	Target	9639968.01	1
20	Bearing Block	9639969.01	1
21	Elevating Base Stop	9639970.01	1

Ref. No.	Description	Part No.	Qty.
22	Elevating Base Dog	9639971.01	1
101	Key	*	1
102	Key	*	1
103	Bearing	*	2
104	Thrust Ball Bearing	*	2
105	Revolving Handles	9639972.01	1
106	Steel Ball	9639973.01	1
107	Grease Joint	9639974.01	1
108	Socket Head Cap Screw	*	2
109	Socket Head Cap Screw	*	4
110	Socket Head Cap Screw	*	1
111	Socket Head Cap Screw	*	1
112	Socket Head Cap Screw	*	2
113	Socket Head Cap Screw	*	2
114	Socket Button Head Screw	*	3
115	Countersunk Head Screw	*	3
116	Set Screw	*	1
117	Taper Pin	*	2
118	Socket Head Cap Screw	*	2

(Δ) Not Shown    (\*) Standard hardware item available locally    (N/A) Not available as replacement part

**REPAIR PARTS ILLUSTRATION FOR MODEL 9682122 - 6" X 12" SURFACE GRINDER - TABLE ASSEMBLY**



Please provide following information:  
 -Model number  
 -Serial number (if any)  
 -Part description and number as shown in parts list

**For Repair Parts, call 1-800-827-3398**



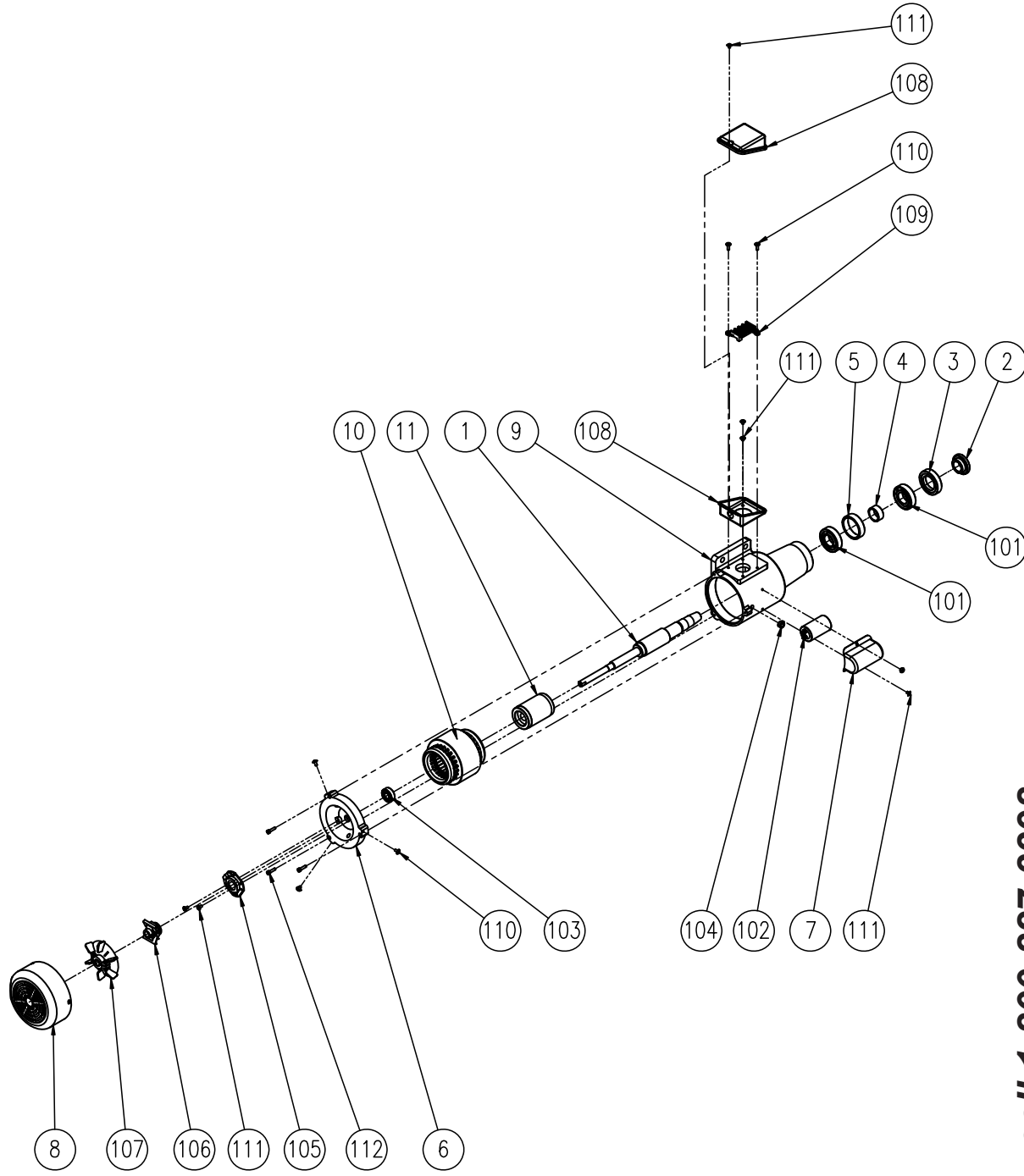
## REPAIR PARTS LIST FOR MODEL 9682122 – 6” X 12” SURFACE GRINDER - TABLE ASSEMBLY

Ref. No.	Description	Part No.	Qty.
1	Gib Base	9639975.01	1
2	Gib	9639976.01	1
3	Rail	9639977.01	2
4	Work Bench	9639978.01	1
5	Dial	9639979.01	1
6	Dovetail	9639980.01	1
7	Gib Nut	9639981.01	1
8	Gib Screw	9639982.01	1
9	Rack	9639983.01	1
10	Cross Feed Helical Gear	9639984.01	1
11	Limited Level	9639985.01	1
12	Cross Feed Shaft	9639986.01	1
13	Wheel	9639987.01	1
14	Block	9639988.01	1
15	Steel Ball Retainer	9639989.01	2
16	Rail	9639989.01	1
17	Rail	9639991.01	1
18	Fender	9639992.01	1
19	Limited Level	9639993.01	2
20	Adjust Screw	9639994.01	1
21	Locking-Washer	9639994.01	1
22	Washer	9639995.01	1
23	Hand Wheel	9639996.01	1
24	Spring	9639997.01	1
25	Bearing Block	9639998.01	1

Ref. No.	Description	Part No.	Qty.
26	Elevating Base Stop	9639999.01	1
27	Elevating Base Dog	9640000.01	1
101	Socket Head Cap Screw	*	48
102	Socket Head Cap Screw	*	2
103	Socket Head Cap Screw	*	4
104	Socket Head Cap Screw	*	4
105	Socket Head Cap Screw	*	1
106	Socket Head Cap Screw	*	1
107	Socket Head Cap Screw	*	4
108	Hexagon Socket Set Screw	*	1
109	Hexagon Socket Set Screw	*	2
110	Countersunk Head Screw	*	3
111	Nut	*	1
112	Nut	*	2
113	Key	*	1
114	Key	*	1
115	Bearing	*	1
116	Revolving Handles	9640001.01	2
117	Spring Pin M5x20	9640002.01	4
118	Grease Joint	9640002.01	1
119	Steel Ball	9640003.01	1
120	Taper Pin M4x40	N/A	1
121	Steel Ball	9640004.01	36
122	Plastic Knobs	9640005.01	1

(A) Not Shown    (\*) Standard hardware item available locally    (N/A) Not available as replacement part

REPAIR PARTS ILLUSTRATION FOR MODEL 9682122 - 6" X 12" SURFACE GRINDER - SPINDLE ASSEMBLY



**For Repair Parts, call 1-800-827-3398**

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

## REPAIR PARTS LIST FOR MODEL 9682122 – 6” X 12” SURFACE GRINDER - SPINDLE ASSEMBLY

Ref. No.	Description	Part No.	Qty.	Ref. No.	Description	Part No.	Qty.
1	Spindle	9640006.01	1	102	Motor Starting	9640012.01	1
2	Nut	9640007.01	1	103	Bearing	N/A	1
3	Nut	9640008.01	1	104	Ring	N/A	1
4	Ring	9640009.01	1	105	Impedance Circuit	N/A	1
5	Ring	9640010.01	1	106	Impedance Bridle	N/A	1
6	Bearing Seat	9640011.01	1	107	Fan	N/A	1
7	Motor	9640012.01	1	108	Box	N/A	1
8	Fan Cover	N/A	1	109	Terminal Block	N/A	1
9	Motor Body	N/A	1	110	Truss Head Screw	N/A	2
10	Motor Coil	N/A	1	111	Truss Head Screw	N/A	5
11	Motor Rotor	N/A	1	112	Socket Head Cap Screw M5x20	*	3
101	Angular Contact Ball Bearing	N/A	2				

(Δ) Not Shown    (\*) Standard hardware item available locally    (N/A) Not available as replacement part

GETTING STARTED

SAFETY / SPECIFICATIONS

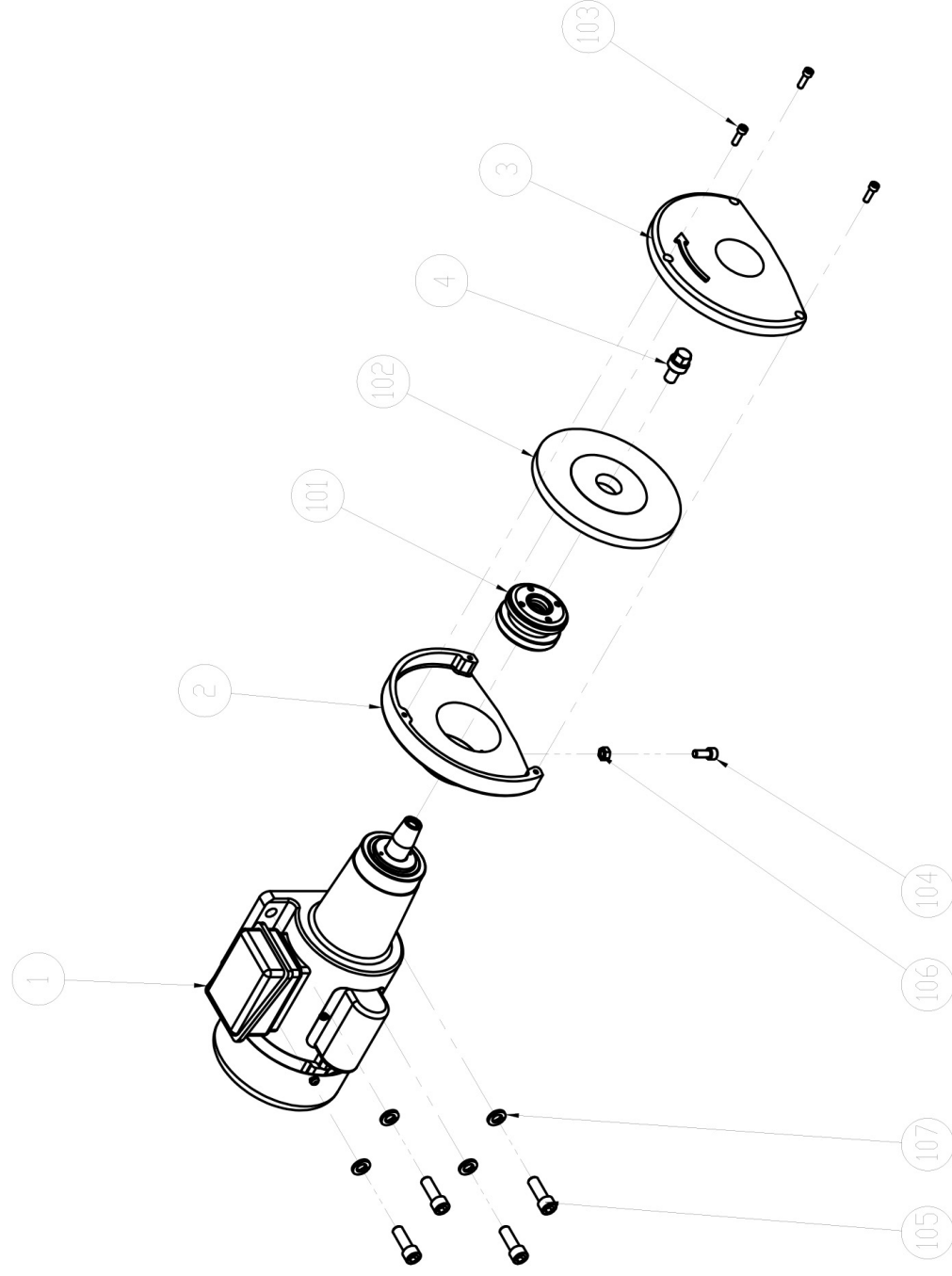
ASSEMBLY / INSTALLATION

OPERATION

TROUBLESHOOTING

MAINTENANCE / REPAIR

**REPAIR PARTS ILLUSTRATION FOR MODEL 9682122 - 6" X 12" SURFACE GRINDER - MOTOR**



**For Repair Parts, call 1-800-827-3398**

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

**REPAIR PARTS LIST FOR MODEL 9682122 – 6" X  
12" SURFACE GRINDER - MOTOR**

Ref. No.	Description	Part No.	Qty.
1	Spindle motor (.75 HP)	9643541.01	1
2	Aluminum front grinder cover	9643542.01	1
3	Aluminum rear grinder cover	9643543.01	1
4	Screw (S45C)	9643544.01	1
101	Wheel flanges (612)	9643545.01	1
102	Grinding Wheel (7")	9639868.01	1
103	Socket head cap screw (M6 x P1.0 x 20L)	9643547.01	1
104	Socket head cap screw (M8 x P1.25 x 20L)	9643548.01	1
105	Socket head cap screw (M12 x P1.75 x 35L)	9643549.01	1
106	Hexagon nut (M8 x P1.25)	9643550.01	1
107	Spring washer (M12)	9643551.01	1

## **PALMGREN WARRANTY**

C.H. Hanson / Palmgren warrants their products to be free of defects in material or workmanship. This warranty does not cover defects due directly or indirectly to misuse, abuse, normal wear and tear, failure to properly maintain the product, heated, ground or otherwise altered, or used for a purpose other than that for which is was intended.

The warranty does not cover expendable and/or wear part (i.e. v-belts, screws, abrasives, jaws), damage to tools arising from alteration, abuse or use other than their intended purpose, packing and freight. The duration of this warranty is expressly limited to the terms noted below beginning from the date of delivery to the original user.

**The Palmgren branded items carry the following warranties on parts:**

**All vises, clamps, positioning tables, tombstones, jack screws and vise accessories - LIFETIME.**

**All bench grinders, drill presses, tapping machines, band saws, lathes, milling machines, arbor presses, abrasive finishing machines and work stands - 3 YEARS.**

The obligation of C.H. Hanson / Palmgren is limited solely to the repair or replacement, at our option, at its factory or authorized repair agent of any part that should prove inoperable. Purchaser must lubricate and maintain the product under normal operating conditions at all times. Prior to operation become familiar with product and the included materials, i.e. warnings, cautions and manuals.

**Failure to follow these instructions will void the warranty.**

This warranty is the purchaser's exclusive remedy against C.H. Hanson for any inoperable parts in its product. Under no circumstances is C.H. Hanson liable for any direct, indirect, incidental, special or consequential damages including loss of profits in any way elated to the use or inability to use our products. This warranty gives you specific legal rights which may vary from state to state.



**Palmgren - a C.H. Hanson Company**  
**2000 N. Aurora Rd., Naperville, IL 60540 U.S.A.**  
or call **1-800-827-3398**