

PALMGREN®
a CH Hanson brand



Drill Bit Sharpener

Model 9682906



**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: _____

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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.

Electrical requirements



The power supply to the Drill Bit Sharpener needs to be 115V, 60Hz. The standard allowable voltage variation is a plus or minus 10%.

UNPACKING

Open the shipping and product carton. After unpacking the Drill Bit Sharpener inspect it carefully for any damage that may have occurred during transit. Check for loose, missing or damaged parts. If any damage or loss has occurred, claim must be filed with the carrier immediately. Check for completeness and immediately report missing parts to the dealer.

Inspect:



- 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.



- See General Safety Instructions, Cautions and Warnings as shown.

Contents Model 9682906 Drill Bit Sharpener:

- Drill bit sharpener unit
- Drill bit chuck
- Top protective cap and screw
- Front protective cap screw
- Operating Instructions and Parts Manual

SAFETY RULES

⚠ WARNING *For your own safety, read all of the instructions and precautions before operating this tool.*

⚠ 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.*



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 **OSHA/NIOSH** approved, properly fitting face mask or respirator when using such tools.

Preparing for your job

- Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are not safety glasses.
- Wearing an OSHA/NIOSH approved, properly fitting face mask or respirator is highly recommended for long term continual use.
- Wear proper apparel when using power tools. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught up in moving parts of machine.
- When using power tools, wear protective hair covering to contain long hair.
- Wear safety shoes with non-slip soles.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

Preparing the work area for your job

- Keep work area clean. Cluttered work areas invite accidents.
- Do not use the Drill Bit Sharpener in dangerous environments or where explosive fumes exist. Do not use the machine in damp or wet locations. Do not expose power tools to rain.
- Work area should be properly lighted.
- A proper electrical receptacle should be available for the tool. A three-prong plug should be plugged directly into properly grounded three-prong receptacle.
- Extension cords should have a grounding prong and the three wires of the extension cord should be of the proper gauge.
- 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.

Maintaining your tool

- Always unplug tool and remove it from its power source prior to inspection. Never unplug the tool by pulling on the cord.
- Consult this manual for specific maintaining and adjusting procedures.
- Keep the tool clean for safest operation. Chip debris build ups can become combustible.
- Check for damaged parts. A part that is damaged should be properly repaired or replaced. Do not perform makeshift repairs. (Use the parts list in this manual to order repair

SAFETY RULES (CONTINUED)

parts). Repairs must be made by a qualified technician.

- Never operate the machine without all safety guards in place. Bypassing, deactivating or removal of a safety device in any way endangers you.

Know how to use your tool

▲ WARNING *Dusty work environments may be hazardous to your health. Always wear a OSHA/NIOSH approved, properly fitting face mask or respirator.*

▲ 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.*

▲ CAUTION *The Model 9682906 Drill Bit Sharpener should not be used with any grinding lubricants or coolants. All bits should be sharpened "dry."*

- The Model 9682906 Drill Bit Sharpener is designed and intended for use by properly trained operators. You must be familiar with the proper and safe operation of a Drill Bit Sharpener. Obtain proper training and knowledge before operating this 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 machine's RPM rating.
- Heavy impact grinding 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.
- Use the right tool for the job. Do not force a tool or attachment to do a job for which it was not designed.
- 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.
- To reduce the risk of electrical shock, never use the tool in rain or wet environments. Store the tool indoors.
- Turn the tool off immediately in the case of an emergency. Completely remove the tool from its power source before attempting to fix the issue.
- 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.
- Use recommended accessories. Understand and obey all safety instructions supplied with accessories. The use of

improper accessories may cause injury.

- Make sure that the any hazardous dusts created by grinding and sharpening are removed by a dust extraction unit.
- Never connect a this machine to a dust collection system also being used by woodworking machines. The sparks and hot chips from this machine 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 9682906 Drill Bit Sharpener

Power Requirements	115V, 60Hz
Grind Disc Rating	4,200 RPM
Grinding Disc	Steel disc, coated with cubic crystalline boron nitride
Maximal Constant Load	5 minutes
Max. Grinding Speed	55 FPS
Fixed Point Angle	118°
Grinding Capacity / Spiral Drill	0.12" - 0.50"
Net Weight	5.5 lbs.
Gross Weight	6.6 lbs.
Tool Dimensions H x D x W	6" X 5.5" X 11.5"

ASSEMBLY / INSTALLATION

Environmental requirements

The Model 9682906 Drill Bit Sharpener should be operated in temperatures of 41° to 104°F and a maximum humidity of 70%. This tool should only be used indoors and not exposed to rain or damp conditions.

Power source

The motor 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.

Power source

Running the unit on voltages which are not within the range may cause over heating and motor burn-out. Heavy loads require that the voltage at the motor terminals be no less than the voltage specified.

▲ WARNING *Make sure the tool is off before plugging it into a power source to prevent accidental starts.*

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

Electrical safety

- Double insulated tools are equipped with a polarizing 3-pronged 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.

- 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.
- 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. Rubber soled footwear will further enhance your personal safety.
- Don't expose this or any tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord to carry the tool or pull the plug from an outlet. Keep the 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.

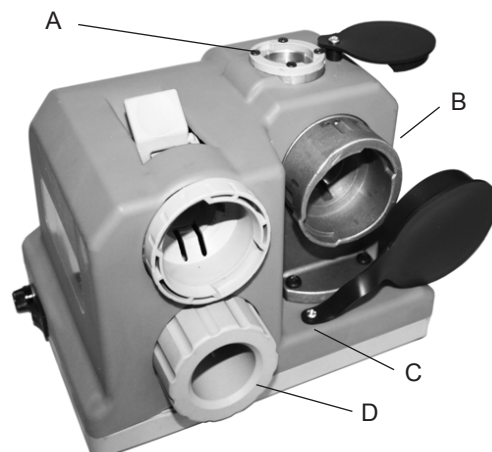
Locating the machine

The Model 9682906 Drill Bit Sharpener should be located on a stable, suitable bench or stand.

- Locate the machine where it is easy to remove the power plug and is easily accessible for maintenance.
- Never operate the machine while holding it in your hands or use it while it is sitting in an unstable condition.

ASSEMBLY

Installing the dust covers on your sharpener



1. Locate the Top Protective and Front Protective Covers from the supplied items. The Front Protective Cover is the larger of the two
2. Attach the Top Protective Cover (A) and Front Protective Cover (C) using the supplied screws.
3. Attach the dust cover to the lower left on the back of the tool (B).
4. The covers protect the two sharpening ports when the tool is not in use.
5. Insert the Drill Bit Chuck into the Chuck Holder Port, lower left (D).

OPERATION - GENERAL

⚠ WARNING *Dusty work environments may be hazardous to your health. Always wear a OSHA/NIOSH approved, properly fitting face mask or respirator.*

⚠ 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.*

⚠ WARNING *Wear proper apparel when using this tool. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught up in moving parts of machine.*

The on / off switch

The power switch is located on lower back of the left side of the tool.

The switch is a simple toggle on / off switch.



The cup wheel on the Drill Bit Sharpener will continue to rotate for approximately 30 seconds after the tool is turned off.



- For an emergency stop, turn the switch off and remove the tool from its power source by unplugging it.

OPERATION - BEST PRACTICES

The Model 9682906 Drill Bit Sharpener is designed to sharpen metal and split point twist drill bits. Do not sharpen any other type of bits with this tool.

Do not use a lubricant or coolant. Use of a coolant or lubricant is not required and will damage the tool. The tool is designed to sharpen bits "dry."

The drill bit sharpener is not intended for continual production usage. The tool is protected by a circuit breaker and may stop operating if it is overused or overloaded. It will restart once the sharpener has returned to a normal operating state and temperature.

OPERATION - MODEL 9682906 DRILL BIT SHARPENER - FUNCTIONAL PARTS



4. Dust Cover



1. Drill Bit Clamping Lever

Pull this lever back to align the drill bit for grinding.

2. Drill Bit Alignment Port

This port receives the Drill Bit Alignment Chuck Alignment.

3. Drill Bit Alignment Chuck

The drill bit is inserted into this chuck. The chuck is mounted into the Drill Bit Alignment port and aligned with the Drill Bit Clamping Lever.

4. Dust Cover

The cover keeps sharpening dust from scattering over the work area.

5. Drill Bit Grinding Port

The Drill Bit Grinding Port receives the Drill Bit Alignment Chuck. Once the chuck is mounted into the port the ring is rotated to sharpen the bit.

6. Drill Bit Tip Grinding Port

This port accepts the Drill Bit Alignment Chuck and is useful for grinding a secondary point on drill bits. Split point drill bits require a second ground tip.

OPERATION - TWIST DRILL BIT SHARPENING

⚠ WARNING *Never insert any tools or accessories into the grinding ports, other than the Drill Bit Alignment Chuck.*

⚠ WARNING *This tool is specifically designed to only sharpen twist drill bits. Using it for any other purpose voids your warranty and could result in personal injury.*

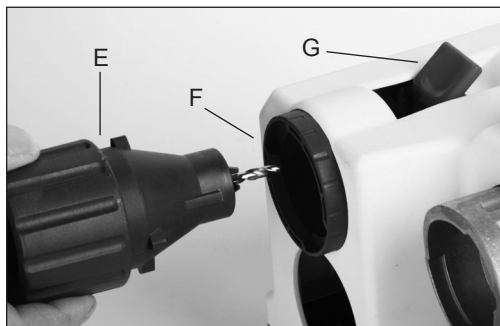


The Model 9682906 Drill Bit Sharpener does not require any lubricant or coolant during grinding operations. The tool grinds "dry." Using coolants or lubricants can damage the machine.

Installing the twist drill bit into the Drill Bit Alignment Chuck.

The Drill Bit Alignment Chuck aligns and holds the bit being sharpened. The chuck fits into the Alignment Port to properly prepare the bit for Grinding by either of the two Grinding Ports.

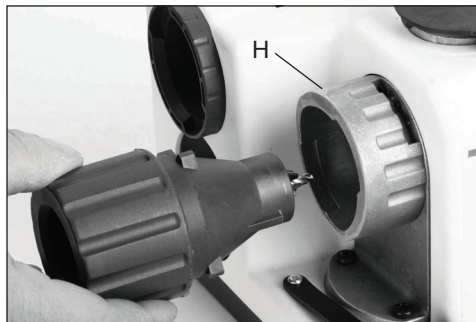
1. Remove the Drill Bit Alignment Chuck from its holder port by rotating it to the left and pulling it free. Open the chuck by rotating the ring to the left.
2. Insert the drill bit into the Alignment Chuck. At this point the bit will be held loosely.



3. Insert the Alignment Chuck (E) into the Alignment Port (F). The Chuck has tabs that will match up with the port. Press the Clamping Lever (G) while pushing the bit in from its end. The Alignment jaws will set the bit to the right rotation and distance for sharpening.
4. Turn the ring on the Alignment Chuck clockwise to "lock" the bit tightly into the Chuck.
5. Remove the Chuck and tighten the bit again to ensure it is held securely.

Grinding the twist drill bit being held in place by the Alignment Chuck

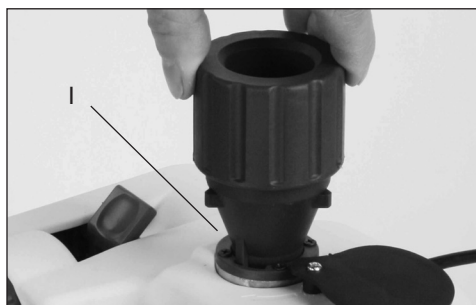
1. Turn on the Drill Bit Sharpener
2. Insert the Drill Bit Alignment Chuck completely into the Drill Bit Grinding Port (H). The port is tabbed so the chuck will only fit when positioned properly.



3. Rotate the Drill Bit Grinding Port right to the left and right. You will hear the sound of the drill bit being sharpened. When the sound stops, the bit has been sharpened on one side.
4. Take the Drill Bit Alignment Chuck out of the Grinding Port and rotate it 180 degrees to sharpen the second side. Like before, you will hear the sound of the bit being sharpened. Rotate it left and right until the sound stops.
5. Turn the sharpener off and wait for it to stop. Remove the alignment chuck from the Sharpening Port.
6. Remove the bit from the Alignment Chuck and insert the chuck back into its holding port.

Secondary grinding for split point twist drill bits

Split point drill bits require a secondary grinding operation on the tip to sharpen them.



1. Insert and set up the drill bit into the Drill Bit Alignment Chuck. Make sure the bit is properly aligned and tightening in the chuck as per previous instructions.
2. Insert the Alignment Chuck into the Drill Bit Tip Grinding Port (I) on the top of the sharpener.
3. Rotate the chuck 180 degrees. You will hear the sound of the bit being sharpened. Once the sound stops, take the bit out, rotate it 180 degrees and repeat sharpening. Grind the second tip side. Once the grinding sound stops, the bit is sharpened.
4. Turn the sharpener off and wait for it to stop. Remove the alignment chuck from the Tip Sharpening Port.
5. Remove the bit from the Alignment Chuck and insert the chuck back into its holding port.

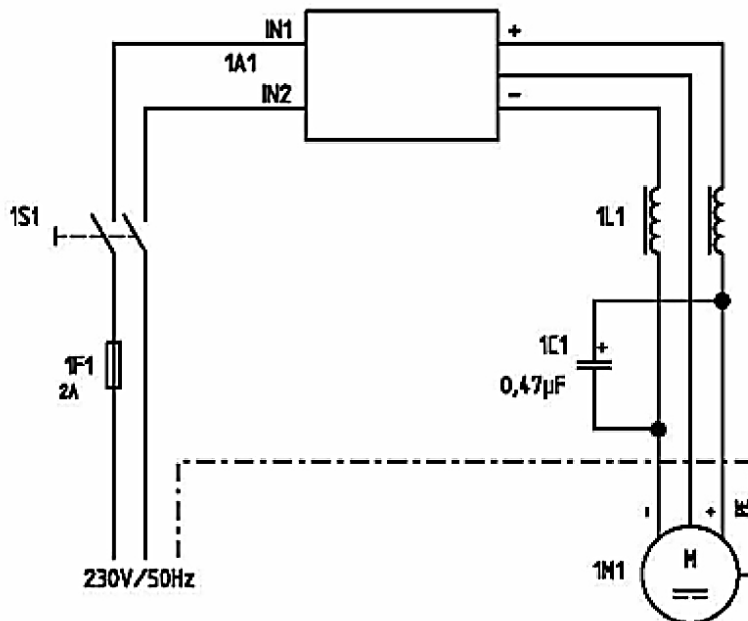
TROUBLESHOOTING

⚠ WARNING

Make sure the machine is turned off and completely unplugged from its power source before performing any type of maintenance.

Symptom	Possible Cause(s)	Corrective Action
Motor not running	1. Blown fuse 2. Motor overheated	1. Replace the 2 amp micro fuse 2. The drill bit sharpener is not intended for production use. The protection circuit has been activated. The motor will restart when the sharpener has returned to a normal operating state and temperature.
Sharpened bits are ground poorly	1. Worn grinding wheel	1. Replace the worn grinding wheel

WIRING DIAGRAM - MODEL 9682906 DRILL BIT SHARPENER



MAINTENANCE - MODEL 9682906 DRILL BIT SHARPENER

The Model 9682906 Drill Bit Sharpener is designed to provide you with professional results when used properly. Any maintenance outside of changing the grinding wheel should be handled by certified technicians.

Ongoing general maintenance

- Clean the exterior of the sharpener as needed with mild soap and water. Using solvents or chemicals may damage the exterior of the sharpener.
- Clean any built up chips from behind the dust shield after using the sharpener.

Changing the grinding wheel

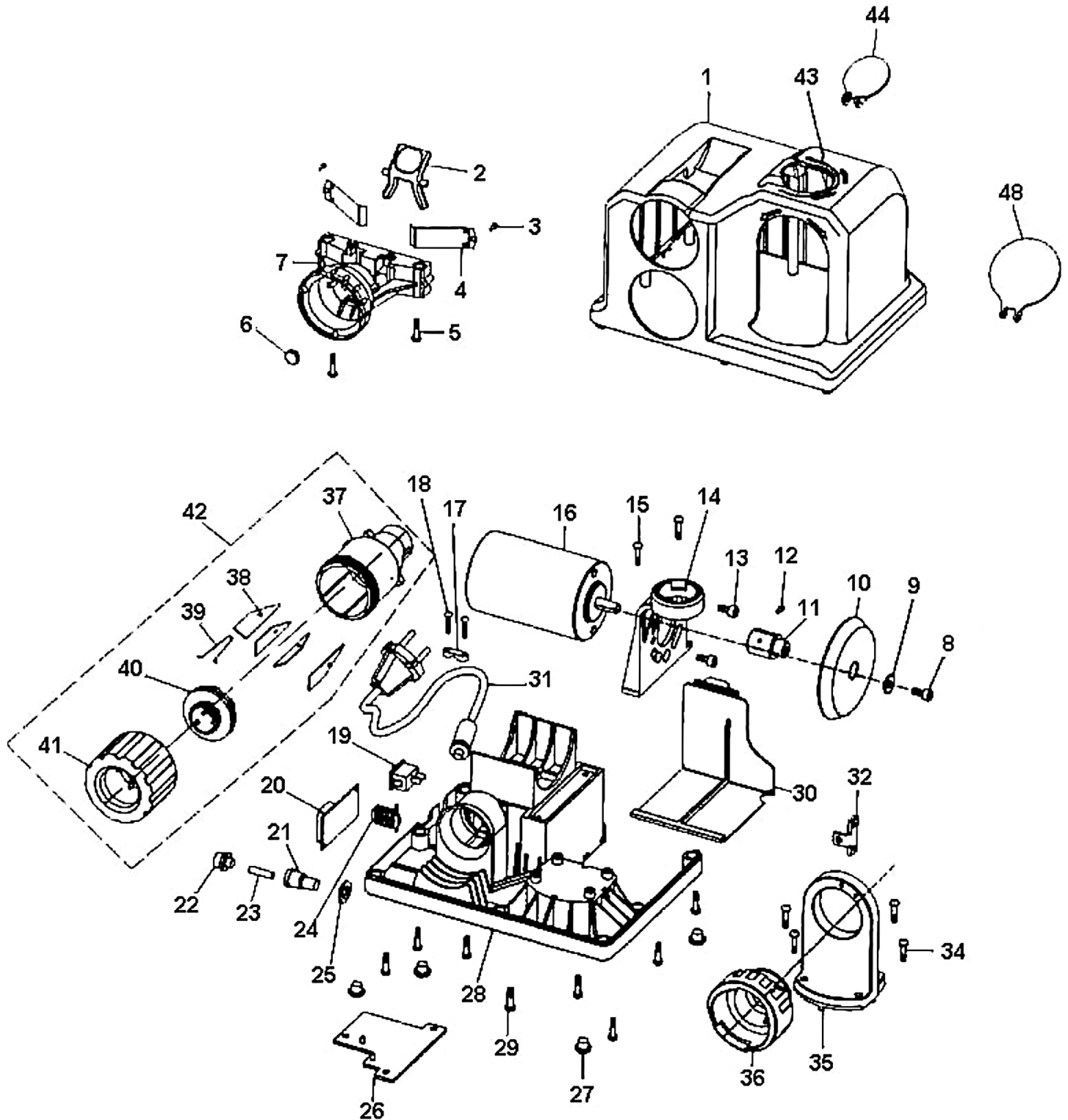
- Remove the cover of the machine.
- Loosen the arbor bolt by rotating it counterclockwise. The

threads to the arbor are right-handed..

- Remove the old wheel. If the wheel does not release, you can moisten it with a small amount of oil or tap it very lightly with a hammer.
- Inspect the new wheel for any cracks or flaws. Do not use a wheel if you doubt its quality.
- Perform a ring test on the new wheel. Hold the wheel on a wooden dowel and tap it with a hammer. It should emit a ring sound.
- Insert a new wheel onto the arbor and tighten the arbor bolt by turning it clockwise.
- Start the sharpener and let it run for several minutes to ensure the wheel is properly installed.

NOTES

[illegible]

REPAIR PARTS ILLUSTRATION FOR MODEL 9682906 - DRILL BIT SHARPENER


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 9682906 - DRILL BIT SHARPENER

Ref. No.	Description	Part No.	Qty.
1	Top Housing	9641448.01	1
2	Clamping button	9641449.01	1
3	Screw	*	2
4	Spring leaf	9641450.01	2
5	Screw	*	2
6	Terminal	9641452.01	1
7	Fixing shelf	9641453.01	1
8	Screw	*	
9	Washer	*	1
10	Grinding Wheel	9641454.01	1
11	Shaft extension	9641455.01	1
12	Screw	*	1
13	Screw	*	
14	Positioner	9641456.01	1
15	Screw	*	
16	Motor	9641457.01	1
17	Wire Restraining	9641458.01	1
18	Screw	*	
19	ON-OFF switch	9641459.01	1
20	PCB	9641460.01	1
21	Fuse block	9641461.01	1
22	Nut for fuse	9641462.01	1
23	Fuse	9641463.01	1
24	Inductance	9641464.01	1

Ref. No.	Description	Part No.	Qty.
25	Locknut for fuse block	9641465.01	1
26	Cover	9641466.01	1
27	Cushion	9641467.01	4
28	Base	+	1
29	Screw	*	11
30	Dust cover	9641468.01	1
31	Cord	9641469.01	1
32	Connector Board	9641470.01	1
34	Screw	*	4
35	Console	9641471.01	1
36	Stand socket	9641472.01	1
37	Positioner for blade	9641473.01	1
38	Blade Holder	9641474.01	6
39	Steel Spring	9641475.01	6
40	Transition Tube	9641476.01	1
41	Locknut	9641477.01	1
42	Tool holder complete (Includes 35,36,37,38,39)	9641478.01	1
43	Guide ring	9641479.01	1
44	Cover above	9641480.01	1
48	Cover below	9641481.01	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 it 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 related 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.
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