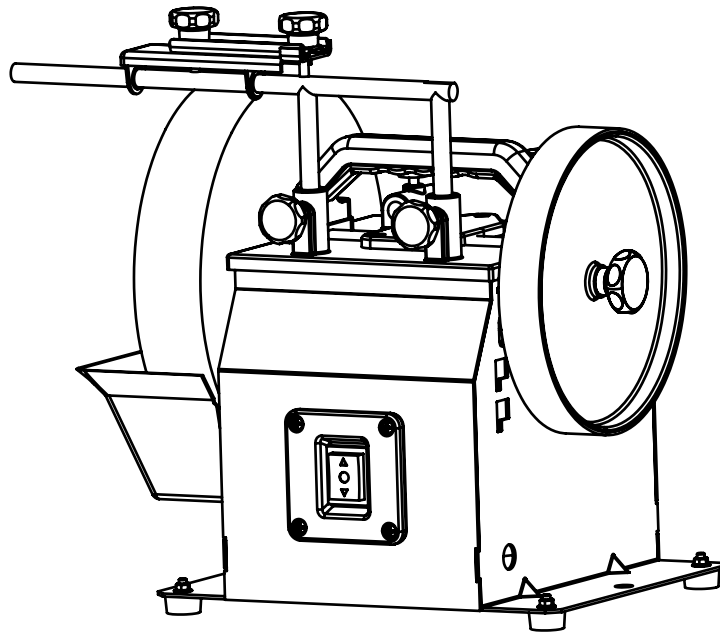




10-INCH WET/DRY SHARPENER



Model # 4270
bit.ly/wenvideo

IMPORTANT:

Your new tool has been engineered and manufactured to WEN's highest standards for dependability, ease of operation, and operator safety. When properly cared for, this product will supply you years of rugged, trouble-free performance. Pay close attention to the rules for safe operation, warnings, and cautions. If you use your tool properly and for intended purpose, you will enjoy years of safe, reliable service.



NEED HELP? CONTACT US!

Have product questions? Need technical support?
Please feel free to contact us at:



800-232-1195 (M-F 8AM-5PM CST)



techsupport@wenproducts.com



WENPRODUCTS.COM

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TECHNICAL DATA

Model Number:	4270
Motor:	120V, 60 Hz, 1.6A
Wheel Speed:	115 RPM
Wet Wheel Diameter:	10 inches
Wet Wheel Grit:	220 grit
Leather Stropping Wheel Diameter:	8 inches
Net Weight:	36 pounds
Product Dimensions:	16.9 x 10.8 x 16.5 inches

GENERAL SAFETY RULES

Safety is a combination of common sense, staying alert and knowing how your item works. **SAVE THESE SAFETY INSTRUCTIONS.**



WARNING: To avoid mistakes and serious injury, do not plug in your tool until the following steps have been read and understood.

1. **READ** and become familiar with this entire instruction manual. **LEARN** the tool's applications, limitations, and possible hazards.
2. **AVOID DANGEROUS CONDITIONS.** Do not use power tools in wet or damp areas or expose them to rain. Keep work areas well lit.
3. **DO NOT** use power tools in the presence of flammable liquids or gases.
4. **ALWAYS** keep your work area clean, uncluttered, and well lit. **DO NOT** work on floor surfaces that are slippery with sawdust or wax.
5. **KEEP BYSTANDERS AT A SAFE DISTANCE** from the work area, especially when the tool is operating. **NEVER** allow children or pets near the tool.
6. **DO NOT FORCE THE TOOL** to do a job for which it was not designed.
7. **DRESS FOR SAFETY.** Do not wear loose clothing, gloves, neckties, or jewelry (rings, watches, etc.) when operating the tool. Inappropriate clothing and items can get caught in moving parts and draw you in. **ALWAYS** wear non-slip footwear and tie back long hair.
8. **WEAR A FACE MASK OR DUST MASK** to fight the dust produced by operations.



WARNING: Dust generated from certain materials can be hazardous to your health. Always operate the tool in a well-ventilated area and provide for proper dust removal. Use dust collection systems whenever possible.

9. **ALWAYS** remove the power cord plug from the electrical outlet when making adjustments, changing parts, cleaning, or working on the tool.
10. **KEEP GUARDS IN PLACE AND IN WORKING ORDER.**
11. **AVOID ACCIDENTAL START-UPS.** Make sure the power switch is in the OFF position before plugging in the power cord.
12. **REMOVE ADJUSTMENT TOOLS.** Always make sure all adjustment tools are removed from the tool before turning it on.
13. **NEVER LEAVE A RUNNING TOOL UNATTENDED.** Turn the power switch to OFF. Do not leave the tool until it has come to a complete stop.
14. **NEVER STAND ON A TOOL.** Serious injury could result if the tool tips or is accidentally hit. **DO NOT** store anything above or near the tool.

GENERAL SAFETY RULES

15. **DO NOT OVERREACH.** Keep proper footing and balance at all times. Wear oil-resistant rubber-soled footwear. Keep the floor clear of oil, scrap, and other debris.
16. **MAINTAIN TOOLS PROPERLY.** ALWAYS keep tools clean and in good working order. Follow instructions for lubricating and changing accessories.
17. **CHECK FOR DAMAGED PARTS.** Check for alignment of moving parts, jamming, breakage, improper mounting, or any other conditions that may affect the tool's operation. Any part that is damaged should be properly repaired or replaced before use.
18. **MAKE THE WORKSHOP CHILDPROOF.** Use padlocks and master switches and ALWAYS remove starter keys.
19. **DO NOT** operate the tool if you are under the influence of drugs, alcohol, or medication that may affect your ability to properly use the tool.
20. **USE SAFETY GOGGLES AT ALL TIMES** that comply with ANSI Z87.1. Normal safety glasses only have impact resistant lenses and are not designed for safety. Wear a face or dust mask when working in a dusty environment. Use ear protection such as plugs or muffs during extended periods of operation.

SPECIFIC RULES FOR THE SHARPENER



WARNING: Do not operate this tool until it is completely assembled and installed according to the instructions.

1. Wear eye protection and a respirator at all times during operation.
2. Keep bystanders clear of the work area during operation.
3. Wheel guards, eye shields and the wheels themselves must be properly installed and mounted.
4. Stand to the side of the sharpener during start-up. Switch it on and let the sharpener reach full speed for roughly one minute so that any undetected issues will become apparent.
5. Keep the guards in place and working properly. Keep hands clear of grinding wheels.
6. Do not reach behind or beneath a grinding wheel.
7. Disconnect the power source and allow the wheels to come to a complete stop before making any adjustments to either the unit itself or the grinding wheels.
8. Ensure the power switch is off before plugging in the tool.
9. Do not overtighten the spindle nuts. Always use all included hardware to properly mount the two grinding wheels.
10. Spacing between the tool rests and the wheel should be set to 1/8 inch or less. Always hold the workpiece firmly against the tool rest.

SPECIFIC RULES FOR THE SHARPENER

11. Do not use in damp conditions. Do not expose to rain.
12. Only use accessories that are recommended by WEN for this model.
13. Only use grinding wheels rated for a speed higher than the maximum RPM of the tool.
14. Never attempt to cut anything with the grinding wheel.
15. Do not use a wheel that vibrates. Make sure grinding wheels are dressed properly. If a wheel vibrates, it may be that the bearings of the shaft need replacing also. Never use a questionable grinding wheel, as the RPM of the machine can send broken wheel fragments flying at high speeds.
16. Inspect wheels for cracks or fragments before starting the machine. Replace damaged wheels immediately.
17. Adjust tool rests and water reservoir as necessary, keeping them close to the grinding wheel. Continue to make adjustments as the wheel wears down.
18. Make sure the unit has been properly mounted to a bench or a stand before starting the motor.
19. Never grind on a cold wheel. Run the sharpener for one full minute before applying the workpiece. Cold wheels have an increased likelihood of chipping during operation.
20. Never start the machine with any load already applied to either grinding wheel.
21. Keep arms, hands and other vital appendages away from the wheel. The abrasive surfaces can cause injury to the user. Avoid awkward operation and hand positions. An accident could easily send the operator's hand into the wheel.
22. Clean the machine thoroughly when changing material types in workpieces. Combining certain materials can increase the chances of an explosion or fire hazard. Do not grind or polish magnesium. Fire will result.
23. Never grind near flammable gas or liquids. Sparks may ignite any such substances nearby.
24. Dress the wheel on the face only. Dressing the sides of a wheel can make it too thin for safe operation.
25. Only grind a workpiece with the face of a grinding wheel.
26. Never apply coolant directly to the grinding wheel. Coolant weakens the structural integrity of the wheel and can cause it to fail. Dip the workpiece in water to cool it off as necessary. Make sure a workpiece has been cooled sufficiently before touching it.

ELECTRICAL INFORMATION

GROUNDING INSTRUCTIONS

IN THE EVENT OF A MALFUNCTION OR BREAKDOWN, grounding provides the path of least resistance for an electric current and reduces the risk of electric shock. This tool is equipped with an electric cord that has 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.

DO NOT MODIFY THE PLUG PROVIDED. If it will not fit the outlet, have the proper outlet installed by a licensed electrician.

IMPROPER CONNECTION of the equipment grounding conductor can result in electric shock. The conductor with the green insulation (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 licensed electrician or service personnel if you do not completely understand the grounding instructions or whether the tool is properly grounded.

USE ONLY THREE-WIRE EXTENSION CORDS that have three-pronged plugs and outlets that accept the tool's plug as shown in Fig. A. Repair or replace a damaged or worn cord immediately.

CAUTION: In all cases, make certain the outlet in question is properly grounded. If you are not sure, have a licensed electrician check the outlet.

WARNING: This tool is for indoor use only. Do not expose to rain or use in damp locations.

EXTENSION CORD GUIDELINES

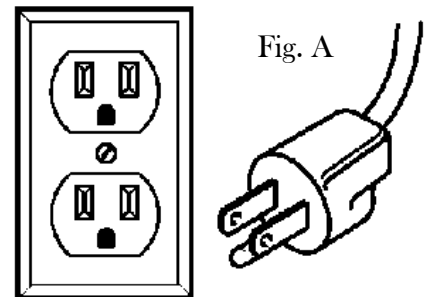
Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The table below shows the correct size to be used according to cord length and nameplate ampere rating. When in doubt, use a heavier cord. The smaller the gauge number, the heavier the cord.

Make sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.

Protect your extension cords from sharp objects, excessive heat and damp/wet areas.

Use a separate electrical circuit for your tools. This circuit must not be less than a #12 wire and should be protected with a 15 A time-delayed fuse. Before connecting the motor to the power line, make sure the switch is in the OFF position and the electric current is rated the same as the current stamped on the motor nameplate. Running at a lower voltage will damage the motor.

WARNING: This tool must be grounded while in use to protect the operator from electric shock.

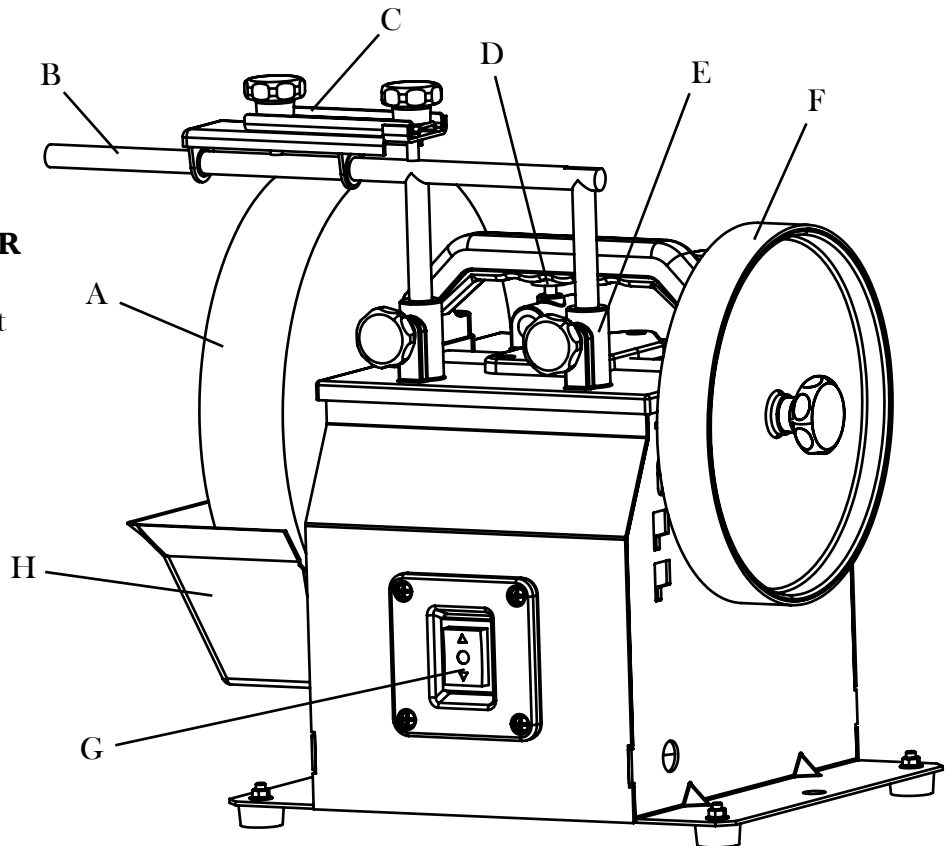


AMPERAGE	REQUIRED GAUGE FOR EXTENSION CORDS			
	25 ft.	50 ft.	100 ft.	150 ft.
1.6 A	18 gauge	16 gauge	16 gauge	14 gauge

KNOW YOUR SHARPENER

KNOW YOUR SHARPENER

- A - Grinding Wheel
- B - Universal Jig/Work Support
- C - Knife Holding Jig
- D - Horizontal Mount (Back)
- E - Vertical Mount (Front)
- F - Leather Stropping Wheel
- G - Power Switch
- H - Water Reservoir



UNPACKING

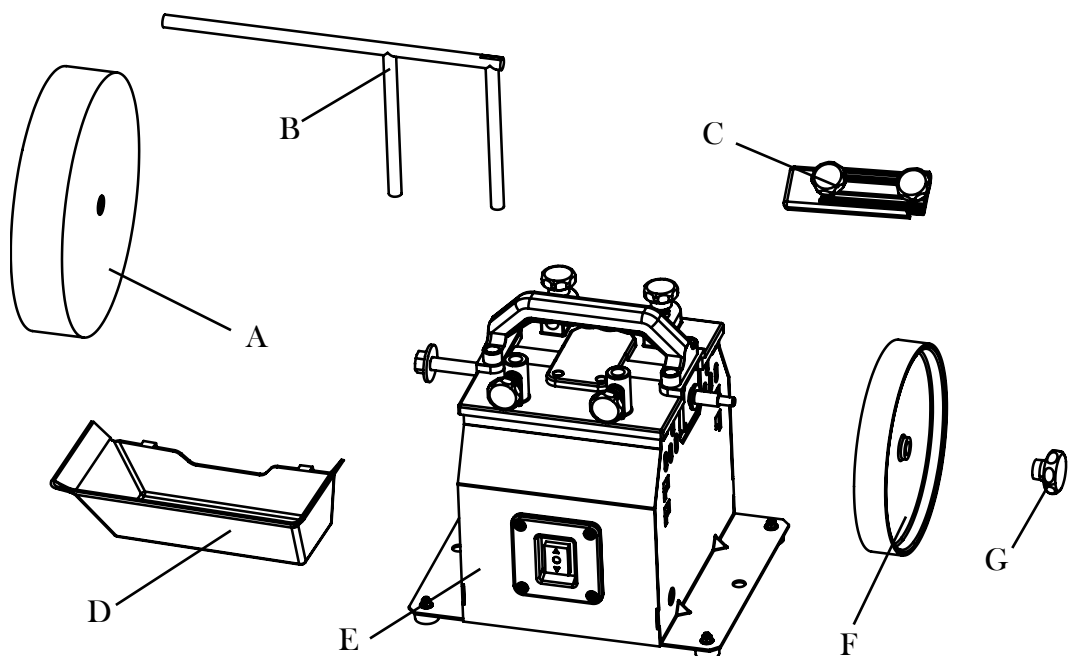


WARNING: To avoid injury from accidental startups, turn switch OFF and remove the plug from the power source outlet before making any adjustments.

Carefully unpack the sharpener and all its parts, and compare against the list below. Do not discard the carton or any packaging until the sharpener is completely assembled.

- A - 10-Inch Wet Grinding Wheel
- B - Universal Support
- C - Knife Holding Jig
- D - Water Reservoir
- E - Wet/Dry Sharpener
- F - 8-Inch Leather Stropping Wheel
- G - Locking Knob

Not Pictured:
Honing Compound
Angle Guide



OPERATION

GRINDING TIPS

Make sure the grinding wheel's water reservoir has been adequately filled. Wear the proper safety clothes including but not limited to safety goggles and a dust mask.

Grasp the workpiece firmly, making sure it is properly supported by either the universal jig or the work support. Apply pressure evenly during grinding operations. When grinding, metal objects become heated quickly. Always move the object back and forth to prevent overheating. Routinely cool the objects using the coolant tray.

POSITIONING THE SUPPORT

The universal jig support acts as both a work rest and as an attachment point for various jigs. The support can either be positioned in the horizontal or the vertical position depending on if you prefer the grinding going with or against the rotation of the wheel.

Slide the universal jig into the mounting brackets and lock it in place using the two onboard thumb screws. Make sure the support is completely parallel and level with the face of the wheel, whether it be in the vertical or the horizontal position.

Working with the rotation of the blade is preferable for more precise jobs, as this method removes less material. For finer tools, such as knives or other carving instruments, grind with the rotation of the wheel.

GRINDING AGAINST THE WHEEL ROTATION

For grinding against the wheel rotation, first disconnect the sharpener from the power supply. Position the machine so that the power switch is facing you. Attach the work support into the vertical position, making sure that everything has been securely fastened and positioned to prevent unwanted movement during grinding. Rest your workpiece on the universal support with the sharpened edge pointing away from you.

NOTE: The sharpener has been outfitted with a power switch that allows for the wheels to rotate in either direction.

GRINDING WITH THE WHEEL ROTATION

After disconnecting the sharpener from its power source, position the machine with the ON/OFF switch facing away from you. Attach the work support into the horizontal mounts. Be sure it is securely positioned and that it will not move during operation.

Set the rotation of the blade to spin away from you. Rest your workpiece on the universal support with the sharpened edge pointing away from you. Grind your workpiece along the face of the wheel.

GRINDING JIG

The grinding jig provided with the wet sharpener is used for securing a variety of tools. The design of this jig can be positioned to either grind tools with or against the wheel's rotation.

To mount the grinding jig:

1. Disconnect the sharpener from the power supply.
2. Position the universal work support into the preferred position (horizontal or vertical orientation), locking it in place with the included thumb screws.
3. Slide the jig onto the work support, using the lock knobs to secure it into position. Use the angle guide to set the grinding wheel. Once it is set in place, use the locking knobs to secure the jig in place.

OPERATION

WATER RESERVOIR

This sharpener has been designed for wet grinding only. **NEVER USE THE GRINDING WHEEL WITHOUT WATER.**

Note that there are multiple slots on either side of the unit. The lower most slot is to be used when the grinding wheel is at a full 10 inches. Once the grinding wheel has been worn down to roughly 8 inches, the higher slots should be used.

Fill up the container to the “Max Water Level” line signified on the inside of the reservoir. Place the lips of the container into whichever mounting slots the current size of the grinding wheel calls for. If the grinding wheel allows for the container to be placed in the higher position, then that should be the preferred position for ensuring a wet grinding wheel.

Check the water level before each use. Be sure the wheel is sufficiently wet before beginning any grinding operations. Never leave the grinding wheel stored in water, as this will damage one side of the wheel, creating a lack of balance.

Putting a magnet inside of the reservoir helps to collect metal filings as they fall into the water. This stops build-up of metal filaments on the grinding wheel.

ANGLE GUIDE

The included angle guide helps maintain certain cutting angles during grinding and sharpening. To use this guide:

1. Locate the eight notches on the angle finder.
2. Find the angle notch that best fits the tool you wish to grind by placing the sharpened edge of the workpiece into each notch.
3. Adjust the positioning of the tool and the work support height as necessary so that the sharpened edge of the tool is flat against both the grinding wheel and the angle edge on the angle guide.

WHEEL DRESSING

Dress the wheel periodically using dressing tools (sold separately) to restore the wheel’s abrasiveness. Follow the instructions that are included with your dressing tools and accessories for information as to properly dress a wheel.

PREPARING THE STROPPING WHEEL

NOTE: When applying any oils/compounds, leave the machine unplugged and turn the wheels by hand (loosen bolts to allow the wheels to rotate freely, making sure everything has been tightend correctly before starting the unit).

Apply a light machine oil evenly to the leather stropping wheel. Use enough to provide a thorough even coat, but not so much as to dampen the wheel to the point of dripping oil.

Using a wooden spreader or other similarly purposed accessory (not included), apply the abrasive honing paste to the stropping wheel, covering the face with an even and thin layer.

After the initial layer has been placed, turn the machine on and continue to evenly distribute the paste with the wooden spreader in light circular motions across the wheel. Once an even distribution has been reached, the stropping wheel is ready to sharpen.

MAINTENANCE

WARNING: For your own safety, turn the switch OFF and remove the plug from the electrical outlet before adjusting or performing maintenance or lubrication work on the sharpener.

Before using, check to make sure parts are not damaged, missing, or worn. Check for alignment of moving parts, binding of moving parts, improper mounting, or any other conditions that may affect the sharpener's operation. If any of these conditions exist, do not use until parts are replaced or the sharpener is properly repaired. Frequently blow or vacuum dust from all surfaces and the motor housing.

WARNING: Any attempt to repair or replace electrical parts on this tool may be hazardous. Repairs should be done by a qualified service technician.

GRINDING WHEELS

Grinding wheels should be inspected before each use. Store the grinding wheels to prevent them from the potential hazards of moisture, containments and other damage.

To replace a grinding wheel:

1. Disconnect the sharpener from the power supply.
2. Hold the wheel to prevent it from rotating. Remove either the arbor nut or the knob that is holding the wheel in place.
3. Remove the outer washer and then remove the wheel. Store the outer washer in a safe space.
4. Install the new wheel. Replace the washer and the nut/knob. Watch that the wheel rotates evenly on startup.

GRINDING WHEELS

Periodically empty out the water reservoir. Rinse it of any metal filaments and refill it with clean water to prevent buildup on the wheel itself. Your cleaning schedule should depend on frequency of use. Make sure water levels are always sufficient enough to keep the wheel wet during grinding operations.

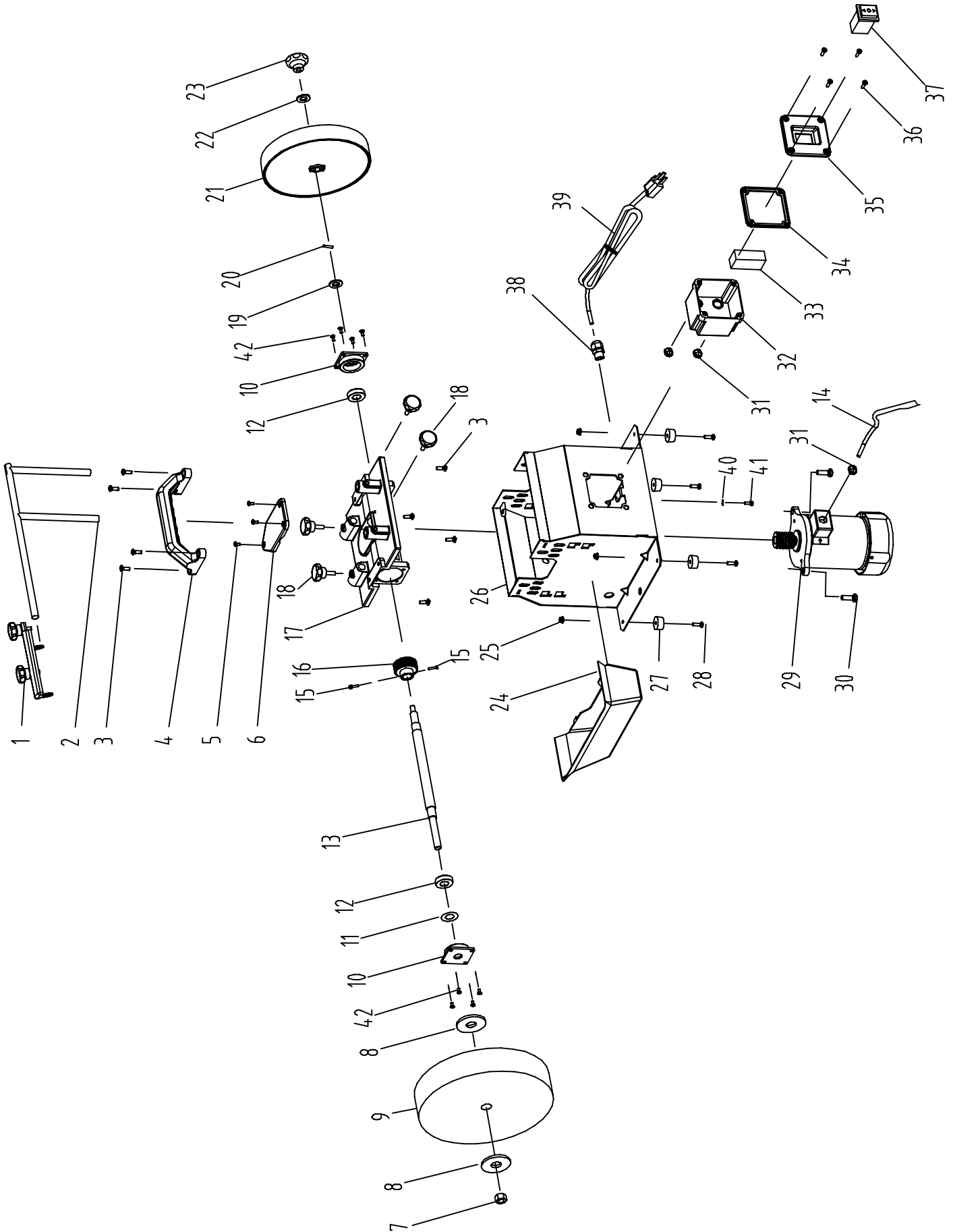
TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The dang motor won't start.	<ol style="list-style-type: none"> 1) Low voltage 2) Loose connections or open circuit in the motor. 3) Blown fuse/breaker. 	<ol style="list-style-type: none"> 1) Make sure the power source is providing the proper voltage. 2) Inspect the motor for loose or open connections. Send for servicing if found. 3) Replace the fuse or reset the breaker
The motor is getting way too hot.	<ol style="list-style-type: none"> 1) Overloaded motor 2) Extension cord too long or not thick enough. 	<ol style="list-style-type: none"> 1) Reduce load on the motor. 2) Utilize an extension cord with an appropriate gauge and length (or plug the tool directly into the outlet if possible).
The motor stalls, causing a blown fuse or tripped circuit.	<ol style="list-style-type: none"> 1) Loose connections or short circuit in the motor. 2) Low voltage. 3) Incorrect fuses or circuit breakers in the power line. 4) Overloaded motor. 	<ol style="list-style-type: none"> 1) Check the connections on the motor for loose or shorted terminals/worn insulation. Send for servicing if found. 2) Fix voltage supply; possibly an issue with the extension cord or possibly the power source. 3) Install the correct fuses or circuit breakers. Plug tool into an appropriate circuit, matched with an appropriate fuse/breaker. 4) Reduce the load.
Stropping wheel performance decreases	<ol style="list-style-type: none"> 1) Insufficient wheel preparation (lack of oil and paste) 2) Damaged wheel 	<ol style="list-style-type: none"> 1) Prepare the wheel 2) Change out the wheel
Wavy condition on the surface of a workpiece	<ol style="list-style-type: none"> 1) Machine is vibrating 2) Workpiece isn't held in place firmly 3) Wheel face uneven 	<ol style="list-style-type: none"> 1) Make sure the machine is securely positioned on a level surface. 2) Use a holding device to firmly retain the workpiece. 3) Dress the grinding wheel.
Machine runs too loud during operation.	Lack of lubricating grease	Add lubricating grease to the gear.

EXPLODED VIEW AND PARTS LIST

ITEM	PART. NO	DESCRIPTION	QTY.
1	4270-001	Blade Holder Assembly	1
2	4270-002	Universal Jig/Work Support	1
3	4270-003	Screw (M6x16)	8
4	4270-004	Handle	1
5	4270-005	Screw (M4x8)	3
6	4270-006	Worm Gear Cover	1
7	4270-007	Nut (M12)	1
8	4270-008	Flange	2
9	4270-009	Grinding Wheel (Ø250×50×Ø12)	1
10	4270-010	Bearing Block	2
11	4270-011	Wave Washer (Ø32)	1
12	4270-012	Bearing (6002RZ)	2
13	4270-013	Main Shaft	1
14	4270-014	Spring Washer	1
15	4270-015	Screw (M5×12)	2
16	4270-016	Worm Gear	1
17	4270-017	Worm Gear Case	1
18	4270-018	Knob (M6×10)	4
19	4270-019	Washer (D12)	1
20	4270-020	Round Pin (Ø5×22)	1
21	4270-021	Polishing Wheel	1
22	4270-022	Washer (Ø8)	1
23	4270-023	Lock Knob (M8)	1
24	4270-024	Water Reservoir	1
25	4270-025	Flanged Hex Nut	4
26	4270-026	Base Subassembly	1
27	4270-027	Rubber Foot	4
28	4270-028	Screw (M5×16)	4
29	4270-029	Motor Subassembly	1
30	4270-030	Screw (M8×35)	2
31	4270-031	Strain Relief	3
32	4270-032	Switch Box	1
33	4270-033	Capacitor	1
34	4270-034	Insulating Gasket	1
35	4270-035	Switch Plate	1
36	4270-036	Tapping Screw (ST4.2×16)	4
37	4270-037	Two-Way Switch	1
38	4270-038	Bushing	1
39	4270-039	Power Cord	1
40	4270-040	Lock Washer (Ø4)	1
41	4270-041	Screw (M4×8)	1
42	4270-042	Screw (M4×10)	8

EXPLODED VIEW AND PARTS LIST



LIMITED TWO YEAR WARRANTY

WEN Products is committed to building tools that are dependable for years. Our warranties are consistent with this commitment and our dedication to quality.

LIMITED WARRANTY OF WEN CONSUMER POWER TOOLS PRODUCTS FOR HOME USE

GREAT LAKES TECHNOLOGIES, LLC (“Seller”) warrants to the original purchaser only, that all WEN consumer power tools will be free from defects in material or workmanship for a period of two (2) years from date of purchase. Ninety days for all WEN products, if the tool is used for professional use.

SELLER’S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY under this Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the repair or replacement of parts, without charge, which are defective in material or workmanship and which have not been misused, carelessly handled, or misrepaired by persons other than Seller or Authorized Service Center. To make a claim under this Limited Warranty, you must make sure to keep a copy of your proof of purchase that clearly defines the Date of Purchase (month and year) and the Place of Purchase. Place of purchase must be a direct vendor of Great Lakes Technologies, LLC. Third party vendors such as garage sales, pawn shops, resale shops, or any other secondhand merchant void the warranty included with this product. Contact techsupport@wenproducts.com or 1-800-232-1195 to make arrangements for repairs and transportation.

When returning a product for warranty service, the shipping charges must be prepaid by the purchaser. The product must be shipped in its original container (or an equivalent), properly packed to withstand the hazards of shipment. The product must be fully insured with a copy of the warranty card and/or the proof of purchase enclosed. There must also be a description of the problem in order to help our repairs department diagnose and fix the issue. Repairs will be made and the product will be returned and shipped back to the purchaser at no charge.

THIS LIMITED WARRANTY DOES NOT APPLY TO ACCESSORY ITEMS THAT WEAR OUT FROM REGULAR USAGE OVER TIME INCLUDING BELTS, BRUSHES, BLADES, ETC.

ANY IMPLIED WARRANTIES SHALL BE LIMITED IN DURATION TO TWO (2) YEARS FROM DATE OF PURCHASE. SOME STATES IN THE U.S., SOME CANADIAN PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO LIABILITY FOR LOSS OF PROFITS) ARISING FROM THE SALE OR USE OF THIS PRODUCT. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE IN THE U.S., PROVINCE TO PROVINCE IN CANADA AND FROM COUNTRY TO COUNTRY.

THIS LIMITED WARRANTY APPLIES ONLY TO PORTABLE ELECTRIC TOOLS, BENCH POWER TOOLS, OUTDOOR POWER EQUIPMENT AND PNEUMATIC TOOLS SOLD WITHIN THE UNITED STATES OF AMERICA, CANADA AND THE COMMONWEALTH OF PUERTO RICO. FOR WARRANTY COVERAGE WITHIN OTHER COUNTRIES, CONTACT THE WEN CUSTOMER SUPPORT LINE.