

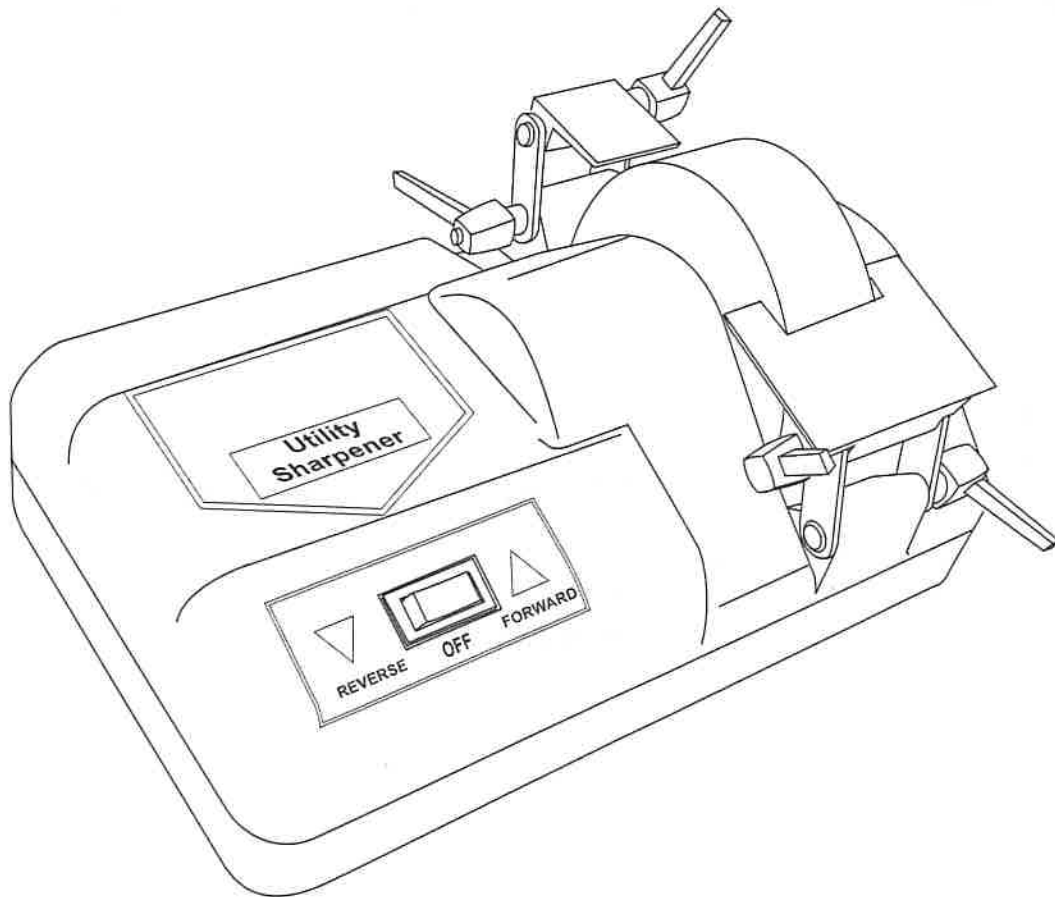
# Owner's Manual

## Manual de operaciones

# UTILITY SHARPENER

MODEL NO. 86566

**CAUTION:** FOR YOUR OWN SAFETY; Read and follow all of the Safety and Operating Instructions before operating this Utility Sharpener.



  
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## Motor

Amp	0.7
Volts	120
Hertz	60
RPM	170 R.P.M. (rating speed) Forward & Reverse
Grinding Wheel Size	4-1/2" x 1-1/2"
Grinding Wheel Grit	120
Tool Rests	Front and Rear

# SAFETY INSTRUCTIONS

## GENERAL SAFETY INSTRUCTIONS

Operating a Utility Sharpener can be dangerous if safety and common sense are ignored. The operator must be familiar with the operation of the tool. Read this manual to understand this Utility Sharpener. **DO NOT** operate this Utility Sharpener if you do not fully understand the limitations of this tool. **DO NOT** modify this Utility Sharpener in any way.

## BEFORE USING THE UTILITY SHARPENER

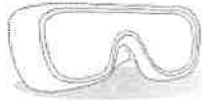
### **⚠ WARNING**

To avoid serious injury and damage to the tool, read and follow all of the Safety and Operating Instructions before operating the Utility Sharpener.

1. Some dust created by using power tools contains 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, 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, such as those dust masks that are specially designed to filter out microscopic particles.
2. **READ** the entire Owner's Manual. **LEARN** how to use the tool for its intended applications.
3. **GROUND ALL TOOLS.** If the tool is supplied with a 3-prong plug, it must be plugged into a 3-contact electrical receptacle. The 3rd prong is used to ground the tool and provide protection against accidental electric shock. **DO NOT** remove the 3rd prong. See Grounding Instructions on page 6.
4. **AVOID A DANGEROUS WORKING ENVIRONMENT. DO NOT** use electrical tools in a damp environment or expose them to rain.
5. **DO NOT** use electrical tools in the presence of flammable liquids or gases.
6. **ALWAYS** keep the work area clean, well lit, and organized. **DO NOT** work in an environment with floor surfaces that are slippery from debris, grease, and wax.
7. **KEEP VISITORS AND CHILDREN AWAY. DO NOT** permit people to be in the immediate work area, especially when the electrical tool is operating.
8. **DO NOT FORCE THE TOOL** to perform an operation for which it was not designed. It will do a safer and higher quality job by only performing operations for which the tool was intended.
9. **WEAR PROPER CLOTHING. DO NOT** wear loose clothing, gloves, neckties, or jewelry. These items can get caught in the machine during operations and pull the operator into the moving parts. You must wear a protective cover on your hair, if your hair is long, to prevent it from contacting any moving parts.

# SAFETY INSTRUCTIONS (cont.)

10.



**ALWAYS WEAR EYE PROTECTION.** Any power tool can throw debris into the eyes during operations, which could cause severe and permanent eye damage. Everyday eyeglasses are **NOT** safety glasses. **ALWAYS** wear Safety Goggles (that comply with ANSI standard Z87.1) when operating power tools.

11. **ALWAYS WEAR HEARING PROTECTION.** Plain cotton is not an acceptable protective device. Hearing equipment should comply with ANSI S3.19 Standards.
12. **ALWAYS UNPLUG THE TOOL FROM THE ELECTRICAL RECEPTACLE** when making adjustments, changing parts or performing any maintenance.
13. **KEEP PROTECTIVE GUARDS IN PLACE AND IN WORKING ORDER.**
14. **AVOID ACCIDENTAL STARTING.** Make sure that the power switch is in the "OFF" position before plugging in the power cord to the electrical receptacle.
15. **REMOVE ALL MAINTENANCE TOOLS** from the immediate area prior to turning "ON" the Utility Sharpener.
16. **USE ONLY RECOMMENDED ACCESSORIES.** Use of incorrect or improper accessories could cause serious injury to the operator and cause damage to the tool. If in doubt, check the instruction manual that comes with that particular accessory.
17. **NEVER LEAVE A RUNNING TOOL UNATTENDED.** Turn the power switch to the "OFF" position. **DO NOT** leave the tool until it has come to a complete stop.
18. **DO NOT STAND ON A TOOL.** Serious injury could result if the tool tips over or you accidentally contact the tool.
19. **DO NOT** store anything above or near the tool where anyone might try to stand on the tool to reach it.
20. **MAINTAIN YOUR BALANCE. DO NOT** extend yourself over the tool. Wear oil resistant rubber-soled shoes. Keep floor clear of debris, grease, and wax.
21. **MAINTAIN TOOLS WITH CARE.** Always keep tools clean and in good working order. Keep all blades and tool bits sharp.
22. **EACH AND EVERY TIME, CHECK FOR DAMAGED PARTS PRIOR TO USING THE TOOL.** Carefully check all guards to see that they operate properly, are not damaged, and perform their intended functions. Check for alignment, binding or breaking of moving parts. A guard or other part that is damaged should be immediately repaired or replaced.
23. **CHILDPROOF THE WORKSHOP AREA** by removing switch keys, unplugging tools from the electrical receptacles, and using padlocks.
24. **DO NOT OPERATE TOOL IF UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.**
25. **SECURE ALL WORK.** Use clamps or jigs to secure the workpiece. This is safer than attempting to hold the workpiece with your hands.\*

# SAFETY INSTRUCTIONS (cont.)

26. **USE A PROPER EXTENSION CORD IN GOOD CONDITION.** When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. The table on the next page shows the correct size to use depending on cord length and nameplate amperage rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the larger diameter of the extension cord. If in doubt of the proper size of an extension cord, use a shorter and thicker cord. An under-sized cord will cause a drop in line voltage resulting in a loss of power and overheating. **USE ONLY A 3-WIRE EXTENSION CORD THAT HAS A 3-PRONG GROUNDING PLUG AND A 3-POLE RECEPTACLE THAT ACCEPTS THE TOOL'S PLUG.**
27. **ALWAYS WEAR A DUST MASK TO PREVENT INHALING DANGEROUS DUST OR AIRBORNE PARTICLES,** including wood dust, crystalline silica dust and asbestos dust. Direct particles away from face and body. Always operate tool in well ventilated area to provide for dust removal. Use dust collection system wherever possible. Exposure to the dust may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing the dust, and avoid prolonged contact with the dust. Allowing dust to get into your mouth or eyes, or lay on your skin may promote absorption of harmful material. Always use properly fitting NIOSH/OSHA approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.

## SAVE THESE INSTRUCTIONS.

### GUIDE LINES FOR EXTENSION CORDS

If you are using an extension cord outdoors, be sure it is marked with the suffix "W-A" ("W" in Canada) to indicate that it is acceptable for outdoor use.

Be sure your extension cord is properly sized, and in good electrical 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 or wet areas.

MINIMUM RECOMMENDED GAUGE FOR EXTENSION CORDS (AWG)				
120 VOLT OPERATION ONLY				
	25' LONG	50' LONG	100' LONG	150' LONG
0 to 6 Amps	18 AWG	16 AWG	16 AWG	14 AWG
6 to 10 Amps	18 AWG	16 AWG	14 AWG	12 AWG
10 to 12 Amps	16 AWG	16 AWG	14 AWG	12 AWG

# GROUNDING INSTRUCTIONS

## **⚠ WARNING**

This tool is intended to be used only with a Ground Fault Circuit Interrupter (GFCI) type receptacle. Test GFCI before each use of the tool.

**IN THE EVENT OF A MALFUNCTION OR BREAKDOWN**, grounding provides the path of least resistance for 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 electrical receptacle that is properly installed and grounded in accordance with **ALL** local codes and ordinances.

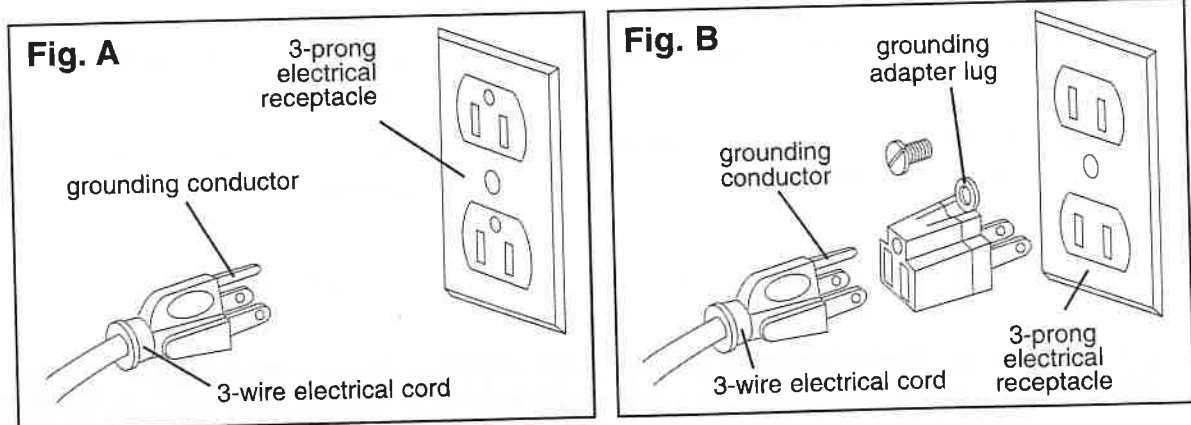
**DO NOT MODIFY THE PLUG PROVIDED.** If it will not fit the electrical receptacle, have the proper electrical receptacle installed by a qualified electrician.

**IMPROPER ELECTRICAL CONNECTION** of the equipment grounding conductor can result in risk of electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. **DO NOT** connect the equipment grounding conductor to a live terminal if repair or replacement of the electric cord or plug is necessary.

**CHECK** with a qualified electrician or service personnel if you do not completely understand the grounding instructions, or if you are not sure the tool is properly grounded.

**USE ONLY A 3-WIRE EXTENSION CORD THAT HAS A 3-PRONG GROUNDING PLUG AND A 3-POLE RECEPTACLE THAT ACCEPTS THE TOOL'S PLUG.**

**REPLACE A DAMAGED OR WORN CORD IMMEDIATELY.**



This tool is intended for use on a circuit that has an electrical receptacle as shown in **FIGURE A**. **FIGURE A** shows a 3-wire electrical plug and electrical receptacle that has a grounding conductor. If a properly grounded electrical receptacle is not available, an adapter as shown in **FIGURE B** can be used to temporarily connect this plug to a 2-contact ungrounded receptacle. The adapter has a rigid lug extending from it that **MUST** be connected to a permanent earth ground, such as a properly grounded receptacle box. **THIS ADAPTER IS PROHIBITED IN CANADA.**

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

## SPECIFIC SAFETY INSTRUCTIONS FOR UTILITY SHARPENERS



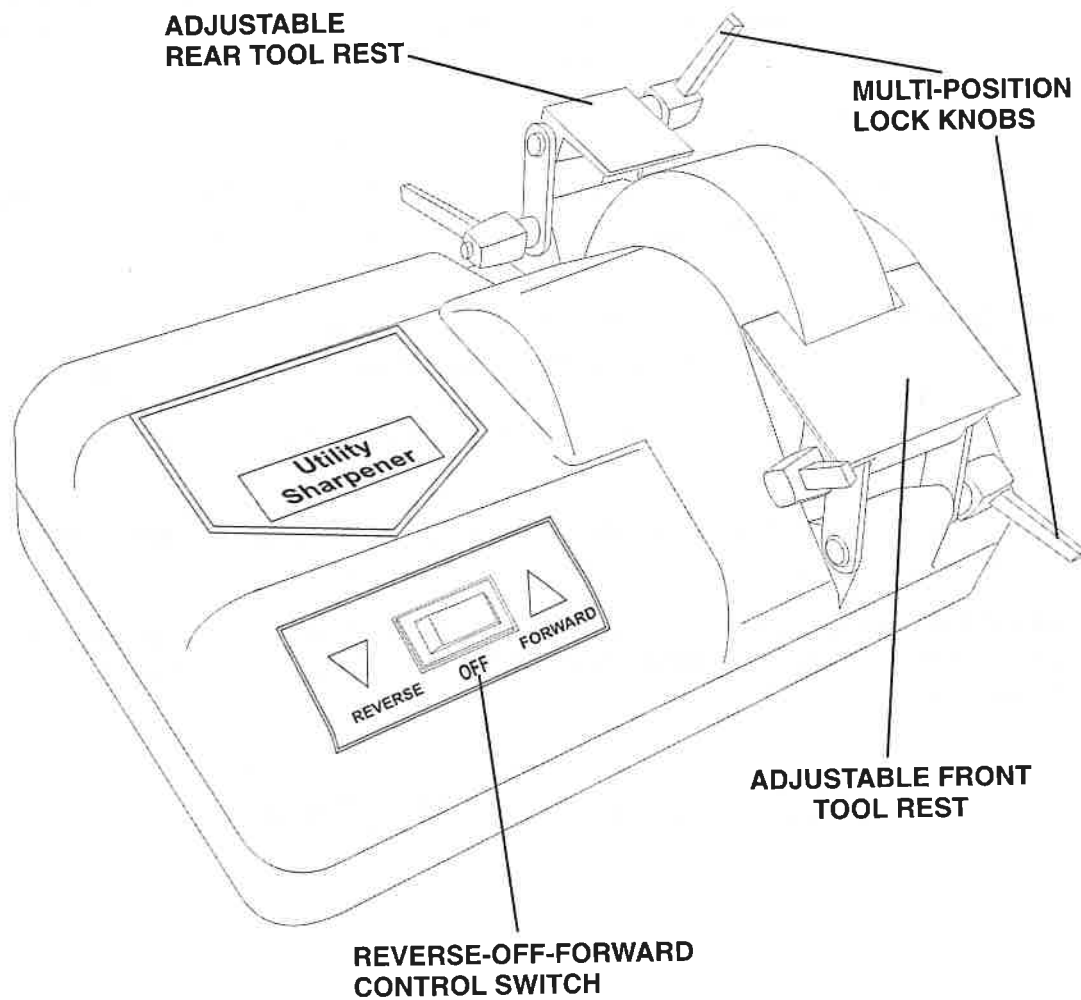
The operation of the Utility Sharpener can result in debris being thrown into your eyes, which can result in severe eye damage.

**ALWAYS** wear Safety Goggles (that comply with ANSI standard Z87.1) when operating the Utility Sharpener.

1. **THE UTILITY SHARPENER MAY PRODUCE SPARKS AND DEBRIS DURING GRINDING OPERATIONS.** Be sure that there are not any flammable materials in the vicinity.
2. **NEVER FORCE THE WORKPIECE AGAINST A GRINDING WHEEL,** especially if the wheel is cold. Apply the workpiece slowly, allowing the grinding wheel an opportunity to warm up. This will minimize the chance of wheel breakage. **DO NOT** grind using the sides of the grinding wheels. **DO NOT** apply coolant directly to the grinding wheel.
3. **THE DIAMETER OF THE GRINDING WHEEL WILL DECREASE WITH USE.** Adjust the tool rests to maintain a distance of 1/8" or less from the wheel.
4. **KEEP ALL TOOL RESTS IN PLACE. DO NOT USE THE UTILITY SHARPENER WITH THE TOOL RESTS REMOVED. KEEP THE TOOL RESTS FIRMLY TIGHTENED.**

**SAVE THESE INSTRUCTIONS.**

# KNOW YOUR UTILITY SHARPENER



The Utility Sharpener is designed with numerous features to quickly and safely sharpen various items around the house and shop. A fine grit grinding wheel is used to produce a sharp and precise cutting edge. Two multi-position tool rests provide a firm work surface at a variety of angles. A water trough is used to keep the grinding wheel and the workpiece cool during sharpening operations. The Utility Sharpener additionally has been outfitted with an electrical power switch that permits the grinding wheel to rotate in the Forward and Reverse directions.

The Utility Sharpener will put a sharp edge on knives, scissors, and flat chisels with a minimal amount of effort and skill needed by the user. Sharp tools cut more quickly, safely and efficiently. A dull edge will require the user to apply more pressure to the workpiece, possibly causing injury to the user. Keeping the cutting tools sharp will provide many years of useful service. Periodic sharpening will prevent the tools from losing the bevel that was put on by the manufacturer originally. The factory bevel is what you should use when sharpening any tool.



## KNOW YOUR UTILITY SHARPENER (cont.)

Sharpening is an easy operation to perform as long as the following items are followed:

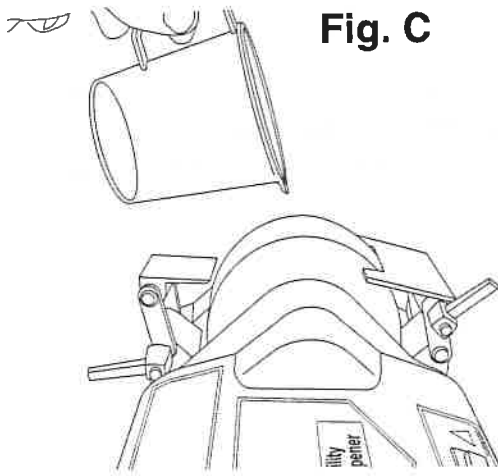
1. **CLEAN** the item to be sharpened prior to beginning any sharpening operations.
2. **ALWAYS** use the factory bevel (cutting edge angle) as a guide to sharpening the tool.
3. **SHARPEN** the tools prior to starting any job involving the tools. The user will then be less likely to rush the sharpening procedure, and then will do a safer and better job.
4. **SHARPEN** the tools in numerous light pressure passes instead of heavily pressing the tool against the grinding wheel. Light passes will be safer and produce a much sharper edge on the tool. Heavy passes will create a ragged and rough edge on the tool.
5. **DO NOT** sharpen tools that are cracked or bent. A damaged tool should be discarded.
6. The Utility Sharpener **IS NOT** to be used as a Bench Grinder to remove large amounts of material. The grinding wheel rotates much slower than a Bench Grinder. The grinding wheel uses a much finer grit grinding wheel than a Bench Grinder's grinding wheel.

# OPERATING THE UTILITY SHARPENER

The Utility Sharpener is designed for sharpening knives, scissors, flat chisels, and more.

**ALWAYS WEAR EYE PROTECTION!** Hot sparks may be produced during sharpening operations.

1. The electrical power switch must be in the **OFF** position.
2. The power cord must be unplugged from the electrical receptacle.
3. Place the Utility Sharpener on flat, firm, and water-resistant surface.
4. Loosen the two lock knobs that hold the front tool rest until the tool rest can be moved away from the stone. The lock knobs may be repositioned by pulling the knob out slightly. This permits the knob to be rotated for additional loosening or tightening.



**Fig. C**

5. Partially fill a measuring cup with tap water. Proceed to slowly pour approximately 3-6 ounces of water over the stone as shown in Fig. C.

## **⚠ WARNING**

Do not have the Utility Sharpener operating while pouring in the water. The rotating grinding wheel will cause water to be splashed possibly onto the electrical switch.

6. Plug in the power cord and turn **ON** the Utility Sharpener. Let the tool run for one minute. This will let the grinding wheel absorb some of the water and provide a cool grinding surface.
7. After one minute, turn **OFF** the Utility Sharpener and unplug the power cord from the electrical receptacle. Proceed to fill the water trough until water is almost about to spill out of the drainage opening in the rear of the Utility Sharpener.
8. The Water Trough will need to be refilled occasionally during extended sharpening operations.
9. Return the front tool rest back into position.
10. Adjust both the front and rear tool rests until they are approximately 1/8" from the grinding wheel. Firmly tighten all four of the lock knobs.
11. Carefully inspect the item to be sharpened. Look for any cracks or bends. If the item is damaged, then discard it. **DO NOT** attempt to sharpen a damaged tool.

## OPERATING THE UTILITY SHARPENER (cont.)

12. If the item to be sharpened is in good condition, then proceed to lay the item flat on either of the tool rests as shown in Fig. D. Loosen the lock knobs and adjust the tool rest until the original bevel angle of the item to be sharpened is matched. Maintain a 1/8" distance from the grinding wheel after the tool rest has been adjusted to the proper angle. Firmly tighten the lock knobs.

**NOTE:** To sharpen scissors, hold as shown in Fig. E. You must sharpen the bevel side of each scissors blade. **DO NOT** attempt to sharpen the flat side of the blade. This will ruin the scissors.

Fig. D

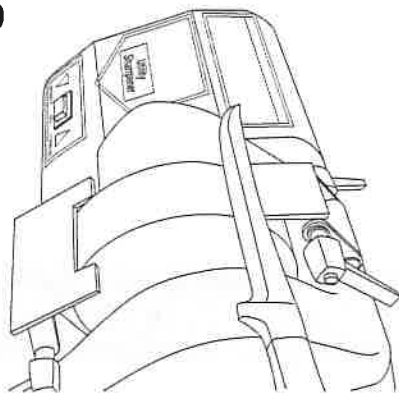
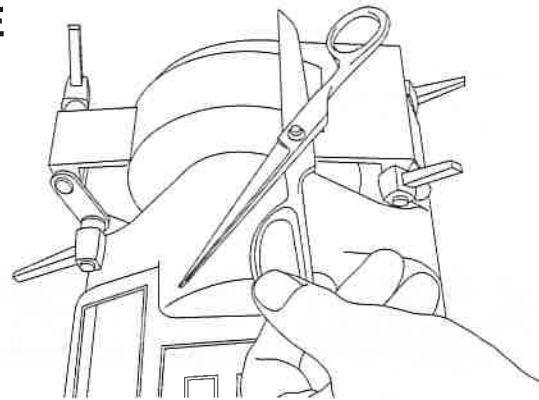


Fig. E



13. Practice a few times while the Utility Sharpener is **OFF**, slowly pulling the tool across the grinding wheel while keeping the tool flat on the tool rest. **ALWAYS** pull the item to be sharpened across the wheel from the angle to the tip of the blade. **DO NOT** ever push the item across the grinding wheel.
14. Plug the power cord into the electrical receptacle and turn **ON** the Utility Sharpener. Ordinarily, cutting edges are sharpened with the grinding wheel turning toward the blade. However, if you find it more comfortable, you may sharpen with the wheel turning away from the blade.
15. Proceed to lay the item to be sharpened flat onto the tool rest and hold onto it firmly with both hands. Slowly and lightly pull the item across the rotating grinding wheel. Inspect the item after a few passes to check the progress. The cutting edge should have a shiny appearance the entire length of the cutting surface. If the surface has dark and shiny spots, the angle of the tool rest is not properly adjusted or the user is not keeping the item flat on the tool rest. Make adjustments as necessary.
16. Alternate sharpening on both sides of the tool.
17. Upon completing the sharpening operations, a small burr might form on the cutting edge. Remove the burr by turning the Utility Sharpener **OFF** and unplugging it from the electrical receptacle. Lightly pull the blade across the stationary grinding wheel until the small burr is removed.
18. Dump out the water that was poured into the water trough earlier by tilting the Utility Sharpener backward.
19. Wipe the Utility Sharpener off with a clean dry rag and inspect for any damage to the grinding wheel.

# MAINTENANCE

Turn the power switch "OFF" and unplug the power cord from its power source prior to any maintenance.

## CLEANING

With the Utility Sharpener unplugged, rotate the abrasive wheel slowly and inspect for any damage.

**CAUTION: REPLACE** the abrasive wheel if there is any damage at all. **FAILURE** to replace a damaged wheel can cause serious injury to the operator.

**CAUTION: DO NOT USE FLAMMABLE MATERIALS** to clean the Utility Sharpener. A clean dry rag or brush is all that is needed to remove dust and debris buildup.

## WARNING

Repairs to the Utility Sharpener should be performed by trained personnel only.

# TROUBLESHOOTING GUIDE

TO PREVENT INJURY TO YOURSELF or damage to the Utility Sharpener, turn the switch to the "OFF" position and unplug the power cord from the electrical receptacle before making any adjustments.

PROBLEM	LIKELY CAUSE	SOLUTION
<b>Motor does not run</b>	Machine not plugged in Power switch in "OFF" position Power cord is faulty Fuse or circuit breaker are open Damaged motor	Plug power cord into electrical receptacle Push switch to Forward or Reverse Return to Service Center Overloaded electrical circuit Return to Service Center
<b>Motor does not have full power</b>	Incorrect line voltage Damaged motor	Have a qualified electrician check line for proper voltage Return to Service Center
<b>Motor runs hot</b>	Motor is overloaded Poor air circulation around motor	Reduce pressure on workpiece Remove any blockage around openings in the base
<b>Motor stalls or runs slow</b>	Motor is overloaded Incorrect line voltage Capacitor has failed	Reduce pressure on workpiece Have a qualified electrician check line for proper voltage Return to Service Center
<b>Fuse blows or circuit breaker trips</b>	Motor overloaded Overloaded electrical circuit Wrong fuse or circuit breaker Undersized or excessive length of extension cord, see manual Grinding wheel is blocked	Reduce pressure on workpiece Reduce the amount of items on circuit Replace with correct fuse or circuit breaker Use correct size Unplug machine and remove obstruction

# PARTS LIST

## UTILITY SHARPENER PARTS LIST

MODEL NO. 86566

### WARNING

Any attempt to repair or replace electrical parts on this Utility Sharpener may create a HAZARD unless repair is done by a qualified service technician.

Always order by PART NUMBER, not by key number.

Key Part No. No.	Description	Qty.	Key Part No. No.	Description	Qty.
1	Motor	1	23	Bottom Housing	1
2	5mm Flat Washer*	5	24	Strain Relief	1
3	4-0.7 x 12mm Hex Head Bolt	4	25	Plate	1
4	3 x 22mm Dowel Pin	1	26	Cord Clamp	1
5	11T Pulley	1	27	14-1.0mm Hex Nut	1
6	Drive Belt	2	28	Capacitor	1
7	35/11T Pulley	1	29	5-0.8 x 55mm Carriage Bolt	2
8	Top Housing	1	30	Locking Handle	4
9	4-0.7 x 8mm Set Screw*	1	31	Link	4
10	35T Pulley	1	32	Front Tool Rest Bushing	1
11	Clamp	2	33	Front Tool Rest	1
12	4.2 x 12.7mm Tap Screw*	8	34	5mm Flat Washer*	4
13	Drive Shaft	1	35	5-0.8 x 51mm Carriage Bolt	2
14	Flange	2	36	Rear Tool Rest Bushing	1
15	Sharpening Wheel #120	1	37	Rear Tool Rest	1
16	4.2 x 16mm Tap Screw*	6	38	Switch	1
17	6-1.0 x 50mm Pan Head Screw	1	39	Line Cord	1
18	Sleeve	1	40	4mm Serrated Washer	1
19	6-1.0mm Fiber Hex Nut*	1	41	4mm Flat Washer*	1
20	Bearing	2	42	4mm Lock Washer*	1
21	Foot	4	43	4-0.7 x 8mm Pan Head Screw*	1
22	Cord Clamp	1	Δ	Operator's Manual	1

\* Standard hardware item available locally.

Δ Not shown

# PARTS LIST

## UTILITY SHARPENER PARTS LIST

