

LTAGA-CBN LTAGA-FCBN rev. B.01 rev. B.01



Safety is our #1 concern! Read and understand all safety information and instructions before operating, setting up or maintaining this machine.

Form #841

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LIMITATIONS

When used within the limits of its design, this machine performs as a light-duty profile grinder for Wood-Mizer blades. Do not use this machine for anything other than as described below. Failure to acknowledge these limitations will lead to premature wheel wear.

- 1. This equipment is designed for light-duty profile grinding of Wood-Mizer blades only.
- 2. This grinder cannot be used to convert the tooth profile more than would require a .020" change in tooth height. Blades with 4° can be changed to 10° and vice-versa (may require two or more light passes through the grinder). All other profile conversions should be avoided.
- **3.** Heavy grinding is not recommended. If necessary, grind twice to reduce the possibility of premature wheel wear.
- **4.** Approved grinding oil is required for proper performance and maximum wheel life.

SECTION 1 GENERAL INFORMATION

1.1 Safety



This symbol calls your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions. This symbol accompanies a signal word. The word **DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. **WARNING** suggests a potentially hazardous situation which, if not avoided, could result in death or serious injury. **CAUTION** refers to potentially hazardous situations which, if not avoided, may result in minor or moderate injury to persons or equipment. Read all safety instructions before operating this equipment and observe all safety warnings!

Warning stripes are placed on areas where a single decal would be insufficient. To avoid serious injury, keep out of the path of any equipment marked with warning stripes.

Read and observe all safety instructions before operating this equipment! Also read any additional manufacturer's manuals and observe any applicable safety instructions including dangers, warnings, and cautions.

Always be sure that all safety decals are clean and readable. Replace all damaged safety decals to prevent personal injury or damage to the equipment. Contact your local distributor, or call your Customer Service Representative to order more decals.



IMPORTANT! Always properly dispose of all by-products, including debris, coolant, oil, and filters.



DANGER! For the user's safety, the power cord on this product has a grounded plug. This power cord should only be used with correctly grounded (3-hose) receptacles to avoid electrical shock. To prevent electrical shock hazard, this unit must be connected to a GFI (Ground Fault Interrupter). The National Electrical Code, Article 680-41(A), requires a GFI be installed in the branch circuit supplying fountain equipment rated above 15 volts. See your local electrical supply dealer for various brands of GFI's.



DANGER! Make sure all guards and covers are in place and secured before operating the sharpener. Failure to do so may result in serious injury.



WARNING! Always wear gloves and eye protection when handling bandsaw blades. Changing blades is safest when done by one person! Keep all other persons away from

area when coiling, carrying or changing a blade. Failure to do so may result in serious injury.



WARNING! Always wear eye protection when operating the sharpener. Failure to do so may result in serious injury.

WARNING! Only operate this machine in a well-ventilated area. Mist from the grinding coolant can be hazardous, especially if operating multiple grinders in an enclosed space. See the coolant MSDS sheet for more information.



CAUTION! Remove the grinding wheel while transporting the Sharpener to prevent damage due to jarring or bumping of the unit.

CAUTION! Do not run the pump until it is under oil. Dry operation will damage the pump!

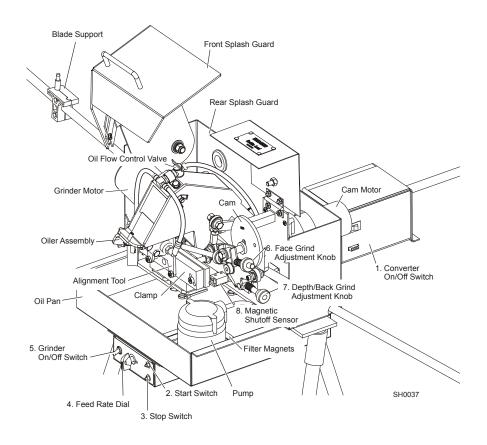
CAUTION! Always turn off the converter box after you have finished sharpening for the day. LEAVING THE POWER ON COULD DAMAGE THE PUMP!

CAUTION! Always be sure the tip of the back grind adjustment knob stays seated against the lift bracket. The grinding wheel will damage the blade if the tip becomes unseated.

CAUTION! Use the 110 Volt AC output to power the coolant pump of the Wood-Mizer Automatic Sharpener Attachment only. Using the output for other purposes will result in machine damage.

1.2 Sharpener Components

See Figure 1-1. The Sharpener component locations and their functions are listed below.



- 1. Converter On/Off Switch. Controls power for entire unit.
- 2. Start Switch. Starts cam motor.
- 3. Stop Switch. Stops cam motor.
- **4.** Feed Rate Dial. Controls cam speed.
- 5. Grinder On/Off Switch. Controls Sharpener motor (Start Switch must be pushed first).
- **6.** Face Grind Adjustment Knob. Controls amount of metal ground from face of tooth.
- **7.** Depth/Back Grind Adjustment Knob. Controls how far the grinding wheel comes down against the gullet and back side of teeth.
- **8.** Magnetic Shut-off Sensor. Automatically turns off grinder and cam motors by sensing magnet placed on lower inside part of blade band.

NOTE: Circuit breakers (not shown) are located on the back of the control box and the left side of the converter box.

SECTION 2 ASSEMBLY

The Wood-Mizer Automatic Sharpener Assembly (LTAGA-FCBN & LTAGA-CBN) is shipped preassembled. Additional assemblies and parts include:

- Two-height Stand Assembly
- Pump
- Blade Support Arms
- Bag Assembly

Bag Assembly Contents	Qty.
Magnet, Orange Shutoff	3
Plug, Rubber Stop	1
Fitting, 3/8 x 1/4 FPT Hose	1
Roller, Blade Support	1
Blade Support Half without Post	3
Blade Support Half with Post	3
Bolt, 1/4-20 x 1 1/2" Hex Head	6
Nut, 1/4-20 Wing	3
Washer, 1/4" Retaining	1
Nut, 1/4-20 Self-Locking	3
Wrench, Router	1
Plate, Head Angle	1
Washer, 1/2" SAE Flat	2
Plate, Oil Trough Extension	1
Bolt, 1/4-20 x 2 1/4" Hex Head Gr5	2
DVD, CBN Instructional	1

NOTE: If you are retrofitting a LTAGA sharpener to LTAGA-CBN, most of the parts listed above are not included as they were already provided with the original sharpener.

2.1 Stand Assembly

The stand assembly consists of one tray assembly, three long stand legs and three short stand legs. It may be set at sitting height or standing height.

See Figure 2-1. For sitting setup, insert the three long stand legs into the sockets in the top of the stand tray.

For a standing setup, add the three short stand legs to the bottom sockets of the stand tray.

Once you have assembled the stand, lift the sharpener assembly and place the underneath sockets of the mount on top of the three long stand legs.

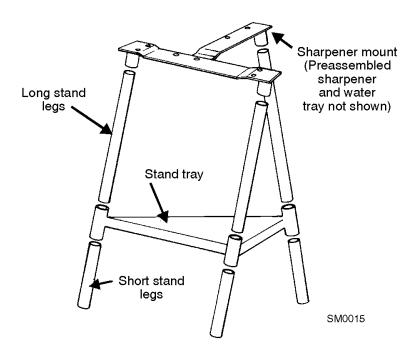


FIG. 2-1

2.2 Pump Installation



DANGER! For the user's safety, the power cord on this product has a grounded plug. This power cord should only be used with correctly grounded (3-hole) receptacles to avoid electrical shock. To prevent electrical shock hazard, this unit must be connected to a GFI (Ground Fault Interrupter). The National Electrical Code, Article 680-41(A), requires a GFI be installed in the branch circuit supplying fountain equipment rated above 15 volts. See your local electrical supply dealer for various brands of GFI's.



CAUTION! Do not run the pump until it is under oil. Dry operation will damage the pump!

CAUTION! Use the 110 Volt AC output to power the coolant pump of the Wood-Mizer Automatic Sharpener Attachment only. Using the output for other purposes will result in machine damage.

- 1. Plug the hole in the oil pan with the rubber stop supplied in the bag assembly.
- **2.** Locate the hose connected to the EMT fitting of the oil flow control valve. Connect the remaining end of this hose to the oil pump.

Place the provided pump plate and two filter magnets in the oil pan as shown to collect sediment. Orient the plate so that the face of the plate lies directly against the bottom of the oil pan. Place the pump on the plate.

See Figure 2-2.

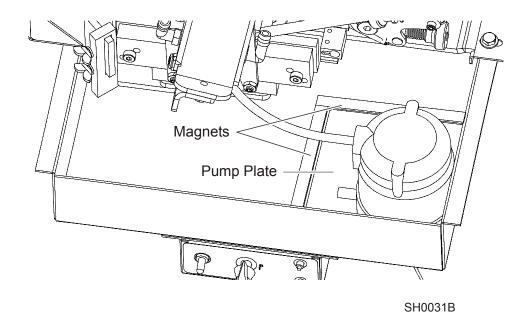


FIG. 2-2

- **3.** Plug the pump into the top cord on the converter box. Plug the converter into a grounded receptacle.
- **4.** Oil is pumped from the oil pan through the oil flow control valve to the grind area. IMPORTANT! Be sure the rubber stop is properly installed before filling the oil pan.

Fill the pan with #165-CE oil to 1" (2.5 cm) from the top. Add oil as necessary to keep the level at 1" from the top pan.

5. For blades with 1 1/8" tooth spacing: An oil trough extension and longer mounting bolts are supplied. Remove the existing oil trough mounting bolts. Place the extension plate between the existing oil trough and mounting plate. Use the longer 2 1/4" bolts to reassemble the trough.

See Figure 2-3.

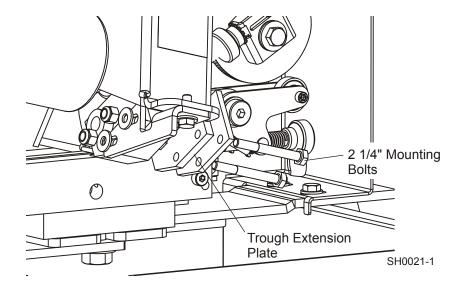


FIG. 2-3

2.3 Electrical Installation

See Figure 2-4. Slide the control box into the slots under the oil pan. Make electrical connections to the control box as shown.

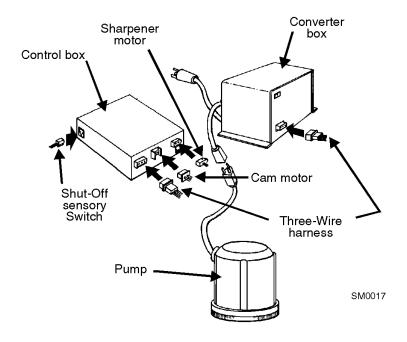


FIG. 2-4

The following is a test for the automatic control mechanisms of the sharpener.

- **1.** Turn the CONVERTER switch on. The switch should light, showing that the converter is on.
- **2.** Open the oil flow valve to start the oil flow, indicating that the pump is operating.
- **3.** With the FEED RATE all the way down, push the START button on the control box. This turns on the cam motor.
- **4.** Flip the GRINDER switch on. The sharpener motor should come on.
- **5.** Turn up the FEED RATE dial. The cam assembly should rotate counterclockwise.

If a control does not work properly, check connections listed above. Also check the circuit breakers on the back of the control box and on the left side of the converter box. To reset a circuit breaker that has kicked out, push in and release. If a control still does not operate properly, contact your nearest service dealer for assistance.

2.4 Blade Support Installation

The blade support assembly includes three blade support arms and three blade support guide assemblies.

See Figure 2-5. Lubricate the threaded ends of the three blade support arms with grease. Insert a blade support arm in each of the three threaded holes located on the vertical plate of the sharpener.

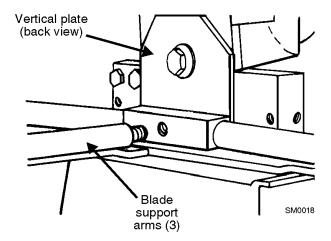


FIG. 2-5

See Figure 2-6. Each guide assembly includes a blade support with post, a blade support without post, two bolts, a keps nut and a wing nut. Join a blade support guide assembly onto the ends of the left and rear blade support arms with posts facing outward as shown. Bolt from the hexed side of the guide assembly. (These hex-shaped holes will keep the bolts from turning once in place.) Tighten the top bolts with the keps nuts. Tighten the bottom bolts with the wing nuts.

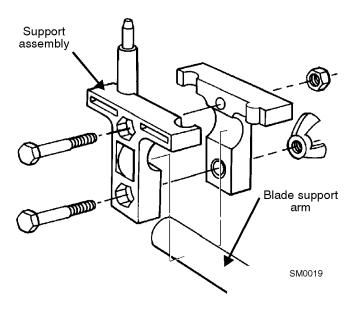


FIG. 2-6

See Figure 2-7. The guide assembly for the right support arm also includes a plastic roller and lock washer. Place the plastic roller and lock washer over the blade support post. Join the guide assembly onto the end of the blade support arm, post facing inward as shown. Continue assembly as above.

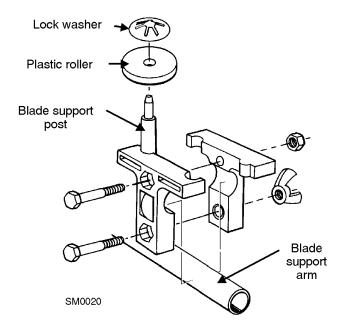


FIG. 2-7

Tilt the guide on the left blade support arm slightly backward, toward the rear of the sharpener, and adjust to 5" (12.5 cm) from the end of the arm. Tilt the guide on the rear blade support arm slightly to the right and adjust to 1" (2.5 cm) from the end of the arm. Tilt the guide on the right support arm slightly forward and adjust to 3" (7.5 cm) from the end of the arm.

2.5 Sharpener Head Angle Adjustment

NOTE: The grinder head is adjusted and pinned at 15 degrees. If you dissassemble the grinder head or clamp assembly, the head angle will need to be checked. Remove the roll pin and follow the procedure below. If necessary, drill a new hole to reinstall the pin.

See Figure 2-8. To adjust sharpener head angle, place the angled template in the clamping fixture with the notches positioned around the blade rest bolts. Loosen the depth adjustment until the sharpener head rests on the template.

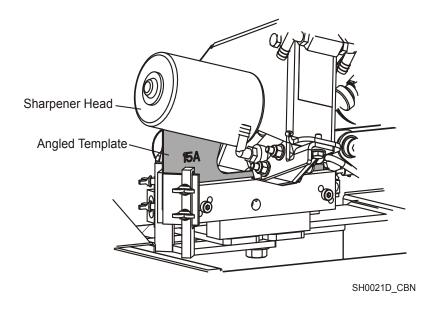


FIG. 2-8

See Figure 2-9. Next, loosen the bolt in the vertical plate of the sharpener. Tip the sharpener head until the full length of the motor housing contacts the full length of the template edge. Hold the sharpener head in place while retightening the bolt in the vertical plate. After tightening the bolt, recheck the head angle with the template.

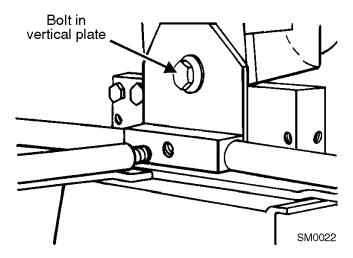


FIG. 2-9

2.6 Sharpener Alignment

Use the LTAGA alignment tool as necessary to achieve accurate alignment between the blade clamp and the grinding wheel.



IMPORTANT! Do not attempt to adjust the tool gauge points. They have been pre-calibrated at the factory to ensure accurate alignment results.

- 1. Make sure the grinder motor is OFF. Cycle the cam until the grinding wheel is at the tip of the tooth (about to begin face grind).
- **2.** Remove the grinding wheel cover , oiler assembly and sharpener arbor nut. Remove the grinding wheel.
- 3. Install the alignment tool to the grinder motor shaft as shown.

See Figure 2-10. Position the tool so all three gauge points are in line with the front clamp plate.

4. Install (2) 1/2" SAE flat washers to the motor shaft. Secure the alignment tool and spacer washers in position with the sharpener arbor nut.

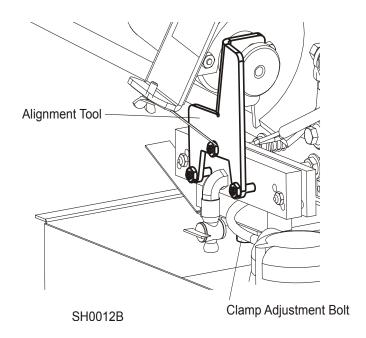
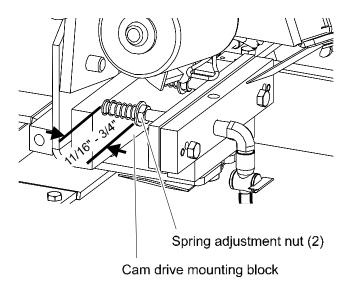


FIG. 2-10

- **5.** Use a 3/4" wrench to loosen the bottom clamp adjustment bolt.
- **6.** Position the clamp assembly so the front clamp plate touches all three tool gauge points. Secure in position by tightening the clamp adjustment bolt.

See Figure 2-11.



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FIG. 2-11

- 7. Remove the arbor nut and alignment tool.
- 8. Reinstall the grinding wheel and secure in place with the arbor nut.
- 9. Reinstall the oiler assembly and grinding wheel cover.
- **10.** Use the spring adjustment nuts (one nut on each of the two threaded clamp studs) to adjust the springs until they are compressed to 11/16" 3/4".

2.7 Grinding Wheel Installation

Before installing a new grinding wheel, push the START button on the control box and turn the FEED RATE dial up to rotate the cam. Continue operation of the cam until the sharpener head is at its lowest setting. Turn the FEED RATE all the way down and push the STOP button.

To install the grinding wheel, take off the wing nut on the right side cover of the sharpener head. Remove the cover and the oiler assembly.

See Figure 2-12. Remove the arbor nut from the motor shaft. Slide a grinding wheel onto the shaft. Replace the arbor nut with the machined, or grooved, side toward the grinding wheel. Hand tighten. Replace oiler assembly, the cover and wing nut.



DANGER! Make sure all guards and covers are in place and secured before operating the sharpener. Failure to do so may result in serious injury.

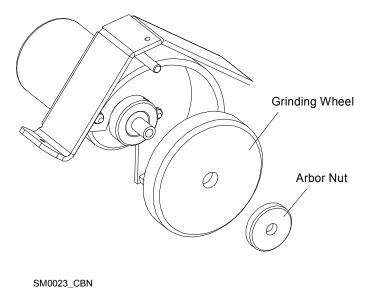


FIG. 2-12

After installing the grinding wheel, hold the sharpener head up with your hand and turn the back/depth grind knob until you can lower the head and the grinding wheel will not contact the blade. Carefully lower the sharpener head.

2.8 Blade Rest Bolt Adjustment

Standard Blade Clamp

The blade rest bolts can be adjusted for 1", 1 1/4", or 1 1/2" wide blades (see below for 1 3/4" and 2" blades). Remove the nut on each rest bolt and move the bolts to one of the three sets of holes in the clamp plates.

See Figure 2-13. Use the upper set of holes for 1" blades, the middle set of holes for 1 1/4" blades, and the bottom set of holes for 1 1/2" blades.

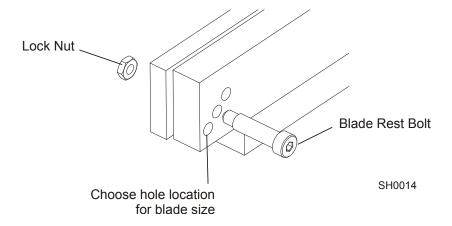


FIG. 2-13

Replace the lock nuts. Tighten the nuts only until the back side of the nut is flush with the end of the bolt.

NOTE: After adjusting the blade rest bolts, flex the blade support arms up or down as necessary so the blade will remain level around the complete length of the blade.

Optional Blade Clamp

A wider clamp is available separately (Kit #060190) that can be adjusted for 1", 1 1/4", 1 1/2", 1 3/4" or 2" wide blades. Remove the nut on each rest bolt and move the bolts to one of the five sets of holes in the clamp plates.

See Figure 2-14. Use the upper set of holes for 1" blades, the next set of holes for 1 1/4" blades, the third set of holes for 1 1/2" blades, the fourth set of holes for 1 3/4" blades and the bottom set of holes for 2" blades.

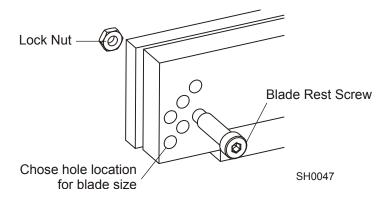


FIG. 2-14

2.9 Blade Installation

See Figure 2-15. Before installing a blade, push START and turn the FEED RATE dial until the cam pivot bolt is at the 2 o'clock position.

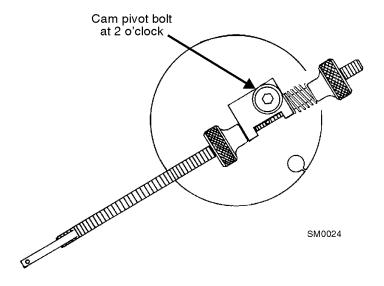


FIG. 2-15

Uncoil a blade and position above the three support assemblies around the sharpener. Check to be sure the teeth on the portion of blade that will be under the grinding wheel point to the right as you face the sharpener. If not, remove the blade and invert it.

See Figure 2-16. Position the blade inside the left and rear blade support posts.

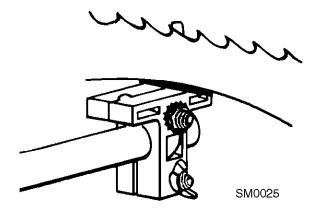


FIG. 2-16

See Figure 2-17. Position the blade outside the right blade guide wheel.

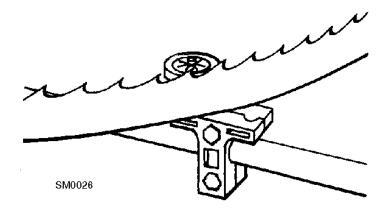


FIG. 2-17

Holding the blade with your left hand, lift the sharpener head with your right thumb and the indexing arm with your right fingers (in that order). Press the blade between the clamping plates. Lower the indexing arm, then lower the sharpener head.

Make final adjustments to blade support arms and guide assemblies to assure the blade band rests evenly on both the right and left hardened dowel pins located in the blade clamp assembly. The blade should not touch the bottom of either side guide assembly. All three guide assemblies should lean slightly in the direction the blade travels through them.

Bend the blade wiper on the left side of the sharpener so that it touches the blade. The wiper will wipe oil from the blade into the oil pan so it does not drip on the floor.

SECTION 3 SHARPENER ADJUSTMENTS

3.1 Overview Of Adjustments

At this point in the instructions, you should have your sharpener completely assembled and operational. The sharpener head should be set at the proper hook angle.

At this point in the instructions, you should have:

- your sharpener completely assembled and operational.
- the sharpener head set at the proper angle.
- a blade installed around the supports and clamped firmly.
- a grinding wheel installed.

You are ready to proceed to face and depth/back grind adjustments. To make these adjustments, inspect the blade carefully with proper lighting.

3.2 Face Grind and Depth/Back Grind Adjustments

It is important to know that face grind and depth/back grind adjustments are related. Adjusting one WILL affect the other. By design, face grind increases as tooth depth increases. A light face grind at the tip of the tooth becomes heavier as the grinding wheel drops to the lowest point in the grinding process. (This is more noticeable on tall tooth profiles than on short tooth profiles.) Adjusting face grind after adjusting depth grind will change the amount of grind on the back side of the tooth.

As you operate the sharpener, the cam will rotate causing the index arm to contact a tooth and push it to a position under the grinding wheel. The cam will also raise and lower the grinder for the indexing process.

CAUTION! When indexing the blade during setup, adjust or manually lift the Sharpener head up to prevent the CBN wheel from dragging along the blade. Failure to do so will result in damage to the CBN wheel surface and cause premature wheel wear.

See Figure 3-1. The index arm can be adjusted to leave the tooth closer to or further from the grinding wheel so the tooth face is ground lighter or heavier.

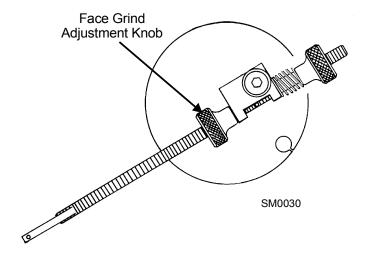


FIG. 3-1

Sharpener Adjustments CBNdoc080917 3-2

See Figure 3-2. The depth/back grind knob can be adjusted to grind the tooth gullet and back at the desired depth.

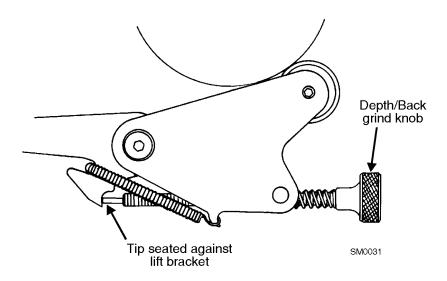


FIG. 3-2

To set up a blade for grinding:

1. Adjust face grind AND depth/back grind so that the wheel is close to, but not contacting, the tooth. Spin the wheel by hand to confirm there is no contact with the tooth.

To adjust face grind if the face grind is too light, turn the face grind adjustment knob out away from the other knob. If the face grind is too heavy, turn the adjustment knob in toward the other knob.

To adjust depth/back grind, turn the depth/back grind knob in to raise the wheel and turn the knob out to lower the wheel.

CAUTION! Always be sure the tip of the back grind adjustment knob stays seated against the lift bracket. The grinding wheel will damage the blade if the tip becomes unseated.

- 2. Confirm the grinding wheel is not touching the blade, then turn the grinder on by pushing the START button. Slowly increase the FEED RATE to index the blade.
- **3.** Adjust the indexing arm to lightly grind the face of the tooth.

3-3 CBNdoc080917 Sharpener Adjustments

Face Grind and Depth/Back Grind Adjustments

4. Slowly advance the cam until the cam is at its lowest point. **NOTE:** The cam has a "double grind" configuration. The cam will lower the head for grinding, lift slightly, then drop back down for light grind. This "double grind" helps smooth out the gullet and also helps to break the burr from the back of the blade.

NOTE: A bottle of red dye is supplied. Brush the tooth with die before grinding. This will assist you in seeing how the grinding wheel is contacting the tooth so you can make the appropriate adjustments.

- **5.** Index the blade a half rotation and inspect the gullet. Confirm the face of the tooth and gullet have been completely ground. Make adjustments if necessary.
- **6.** Sharpen the next tooth, then index a half turn. Inspect again, confirming the tooth is sharp and you are not removing any more material than is necessary from the face of the tooth. Make adjustments if necessary.

Before sharpening the blade, be sure to turn on the oil flow. The grinding wheel requires lubrication for proper operation and maximum wheel life. <u>See SECTION 4 Sharpener Operation.</u>

Sharpener Adjustments CBNdoc080917 3-4

SECTION 4 SHARPENER OPERATION

4.1 Operation



WARNING! Always wear eye protection when operating the sharpener. Failure to do so may result in serious injury.

After the sharpener has been assembled and properly adjusted, you are ready to sharpen the blade.

- **1.** Push the start button, open the oil flow control valve, and turn the grinder switch on. Slowly increase the feed rate to begin the blade moving.
- 2. As a final check before sharpening the blade, grind a tooth and check its shape. Push the stop button, close the oil flow control valve, and turn the grinder off. Make sure that the tip is completely sharp. Make adjustments with the face and back/depth grind knobs to provide the desired results.

NOTE: A bottle of red dye is supplied. Brush the tooth with die before grinding. This will assist you in seeing how the grinding wheel is contacting the tooth so you can make the appropriate adjustments.

3. Push the start button, open the oil flow control valve, and turn the grinder switch on. Increase the feed rate to a moderate speed. How fast you can grind will be determined by how much material you are removing from the blade.

To reduce the risk of premature blade fatigue from hairline cracks, it is important to thoroughly clean the gullet during resharpening. It may be necessary to lightly grind the blade twice (using a light face, back and gullet grind each time) to thoroughly clean the gullet.

Also, if a heavy grind is required, it is best to go around the blade lightly twice rather than try to grind heavily once. If you try to grind too heavy, the breaker at the back of the control box will pop. Wait 15 seconds and push the breaker in to reset.

4.2 Magnetic Shut-off

See Figure 4-1. The shut-off sensor is located to the right of the blade clamp assembly. When passed over by a magnet, it automatically shuts down the grinder and cam motors of the LTAGA.

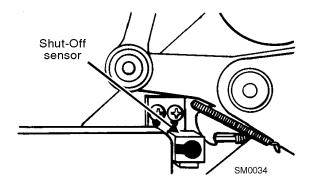


FIG. 4-1

To install, take an orange-painted magnet from the bag assembly. Place the black side of the magnet against the bottom edge of the blade on the inside of the fifth face-ground tooth. After the sensor bracket has shut off the cam and grinder motors, flip the grinder switch into the off position. Remove the magnet.



4.3 Blade Removal

Blade removal is similar to blade installation. First, turn the feed rate dial all the way down. Then push the start button. Turn the feed rate dial until the cam pivot bolt is at the 2 o'clock position.

Lift the sharpener head with your right thumb and the indexing arm with your right fingers (in that order). Use your left hand to remove the blade from the sharpener. Lower the indexing arm, then lower the sharpener head.

Turn off the converter switch.



CAUTION! Always turn off the converter box after you have finished sharpening for the day. LEAVING THE POWER ON COULD DAMAGE THE PUMP!

SECTION 5 REPLACEMENT PARTS

5.1 How To Use The Parts List

- Use the index above to locate the assembly that contains the part you need.
- Go to the appropriate section and locate the part in the illustration.
- Use the number pointing to the part to locate the correct part number and description in the table.
- Parts shown indented under another part are included with that part.
- Parts marked with a diamond (♦) are only available in the assembly listed above the part.

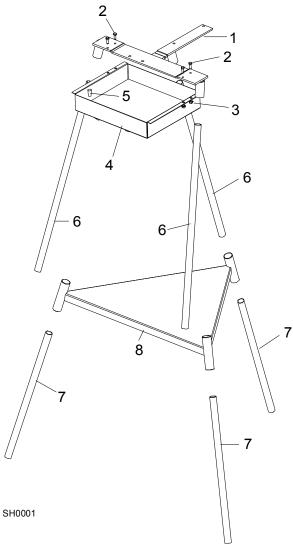
See the sample table below. Sample Part #A01111 includes part F02222-2 and subassembly A03333. Subassembly A03333 includes part S04444-4 and subassembly K05555. The diamond (♦) indicates that S04444-4 is not available except in subassembly A03333. Subassembly K05555 includes parts M06666 and F07777-77. The diamond (♦) indicates M06666 is not available except in subassembly K05555.

5.2	Sample Assembly			
REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY.	
	Sample Assembly, Complete (Includes All Indented Parts Below)	A01111	1	
1	Sample Part	F02222-22	1	
	Sample Subassembly (Includes All Indented Parts Below)	A03333	1	
2	Sample Part (♦ Indicates Part Is Only Available With A03333)	S04444-4	1	•
	Sample Subassembly (Includes All Indented Parts Below)	K05555	1	
3	Sample Part (◆ Indicates Part Is Only Available With K05555)	M06666	2	•
4	Sample Part	F07777-77	1	

To Order Parts:

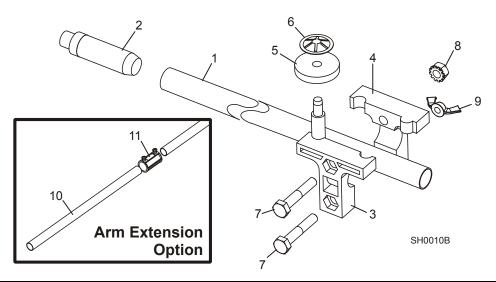
- From the continental U.S., call *1-800-525-8100* to order parts. Have your customer number, equipment identification number, and part numbers ready when you call.
- From other international locations, contact the Wood-Mizer distributor in your area for parts.

5.3 Stand Assembly



REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
1	BRACKET, AUTOMATIC SHARPENER MOUNTING	W09766	1	
2	BOLT, 1/4-20 X 3/4" HEX HEAD FULL THREAD	F05005-1	4	
3	NUT, 1/4-20 SELF-LOCKING	F05010-9	4	
4	TRAY, WATER COOLANT	W09769	1	
5	PLUG, RUBBER WATER TRAY	P09812	1	
6	LEG, SHARPENER STAND LONG	S09781	3	
7	LEG, SHARPENER STAND SHORT	S09782	3	
8	TRAY, BOTTOM SHARPENER STAND	W09778	1	

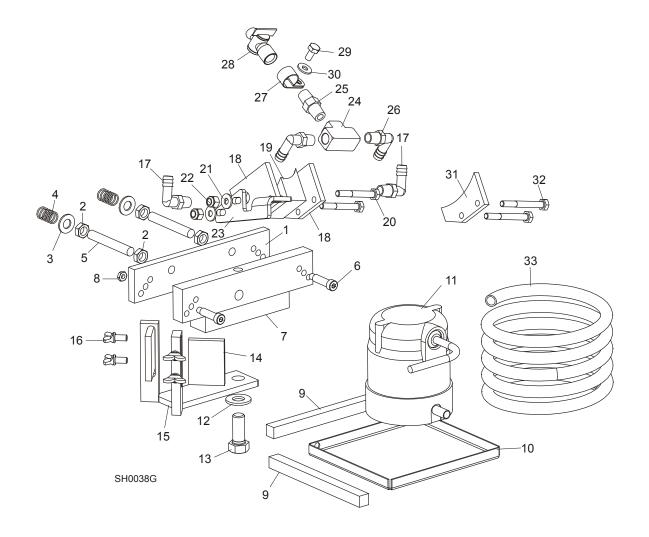
5.4 Blade Support Assembly



REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	TUBE ASSEMBLY, BLADE SUPPORT	A04550	3	
1	Tube, Blade Support	M04551	1	•
2	Plug, Blade Support Tube	P04552	1	•
	GUIDE KIT, BLADE SUPPORT	A10617	1	
3	Guide w/Post, Blade Support	S10611	3	
4	Guide w/o Post, Blade Support	S10612	3	
5	Roller, Blade Support	S10539	1	
6	Washer, 1/4" Retainer	P10614	1	
7	Bolt, 1/4-20 x 1 1/2" Hex Head Grade 2	F05005-5	6	
8	Nut, 1/4-20 Self-Locking	F05010-9	3	
9	Nut, 1/4-20 Wing	F05010-13	3	
	Instruction Sheet, Blade Support Guide Assembly	A10617-274	1	
	EXTENSION KIT, BLADE SUPPORT ARM	A20912 ¹	1	
10	Arm, Support Arm 12" Extension	S10625	4	
11	Coupler, 1/2" EMT Conduit	P04587	4	
	Instruction Sheet, Blade Support Arm Extension Kit	M20913-391	1	

¹ Includes parts to extend the left and right blade support arms of the sharpener and toothsetter to support longer blades. The rear support arms will not require an extension.

5.5 Clamp & Oil System

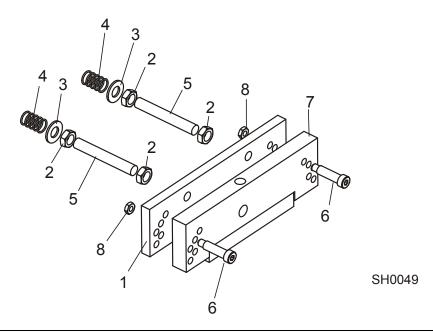


REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	CLAMP ASSEMBLY, CBN PROFILE LTAGA WITH INSTRUCTIONS	010755 ¹	1	
	Clamp Assembly, CBN Profile LTAGA	010761	1	•
1	Plate, Moving Clamp	S10652	1	•
2	Nut, 3/8-24 UNC Hex Jam	F05010-22	4	
3	Washer, 3/8" Flat	F05011-3	2	
4	Spring, Clamp Handle LC-067GH-4SS	P09818	2	
5	Stud, 3/8-24 x 2 5/8" Threaded Rod	010658-1	2	
6	Bolt, #10-24 x 1" Socket Head Hardened Shoulder	010664	2	
7	Plate, Fixed Clamp	W10650	1	•

8	Nut, #10-24 Hex Lock	F05010-42	2	
	Instruction Sheet, CBN Clamp Retrofit/Replacement	010755-568	1	
9	MAGNET, FILTER	P31347	2	
10	PLATE, PUMP TRAY	010756	1	
11	PUMP, AGA	P09836	1	
12	WASHER, 1/2" SAE FLAT	F05011-2	1	
13	BOLT, 1/2-20 X 1 1/4" HEX HEAD GRADE 5	F05008-108	1	
14	BLADE, WIPER	S30265	2	
15	WIPER WELDMENT, LTAGA	010728	1	
16	STUD, 1/4-20 X 1/2" WING	F05005-16	4	
	OILER ASSEMBLY, GRINDING WHEEL	010724	1	
17	Barb, 3/8" Hose X 1/4" Male NPT Elbow	P04730	2	
18	Plate, Oiler Side	060135	1	
19	Block, Oil Trough	010730	1	
20	Bolt, 1/4-20 x 2" Hex Head Grade 5	F05005-125	2	
21	Washer, 1/4" SAE Flat	F05011-11	2	
22	Nut, 1/4-20 Nylon Lock	F05010-69	2	
23	Bracket, Oil Trough Mounting	010735	1	
24	FITTING, 1/4" NPT BRASS TEE	010720	1	
25	FITTING, 1/4" NPT HEX NIPPLE	P09144	1	
26	FITTING, 3/8" TUBE X 1/4" NPT NYLON ELBOW	P04730	2	
27	CLAMP, 5/8" EMT COATED	010748	1	
28	VALVE, 1/4" LOC-LINE	P09835	1	
29	BOLT, 1/4-20 X 1/2" HEX HEAD	F05005-15	1	
30	WASHER, 1/4" SAE FLAT	F05011-11	1	
31	PLATE, OIL TROUGH SPACER	060198 ²	1	
32	BOLT, 1/4-20 X 2 1/4" HEX HEAD	F05005-72 ²	2	
33	HOSE, 3/8"OD X 1/2" ID X 4' OIL	010739	1	

¹ Clamp Retrofit 060190 available to allow clamp to accept 1 3/4" & 2" wide blades (<u>See Section 5.6</u>). New clamp requires shorter mounting bolt F05008-42. Longer bolts and spacers provided for lift assembly to allow higher range of movement for grinding head. ² For use with blades with 1 1/8" tooth spacing only.

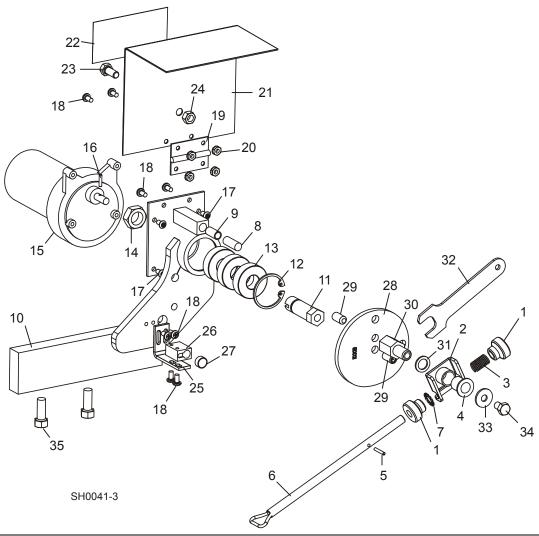
5.6 Blade Clamp Retrofit



REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	CLAMP ASSEMBLY, 2" CLAMP RETRO	060190 ¹	1	
1	Plate, AGA Moving Clamp	060189	1	•
2	Nut, 3/8-24 UNC Hex Jam	F05010-22	4	
3	Washer, 3/8 Flat	F05011-3	2	
4	Spring, Clamp Handle LC-067GH-4SS	P09818	2	
5	Stud, 3/8-24 x 2 5/8" Threaded Rod	010658-1	2	
6	Bolt, #10-24 x 1" Socket Head Hardened Shoulder	010664	2	
7	Plate, AGA Fixed Clamp	060191	1	•
8	Nut, #10-24 Hex Lock	F05010-42	2	
	Lift Assembly Rod End Spacers and Bolts (See Section 5.9)			
	Tool Kit, LTAGA Alignment	010706	1	
	Instruction Sheet, LTAGA 2" Clamp Retrofit	060190-1491	1	

¹ Clamp Retrofit 060190 available to allow clamp to accept 1 3/4" & 2" wide blades. Longer bolts and spacers provided for lift assembly to allow higher range of movement for grinding head.

5.7 Cam Index Assembly



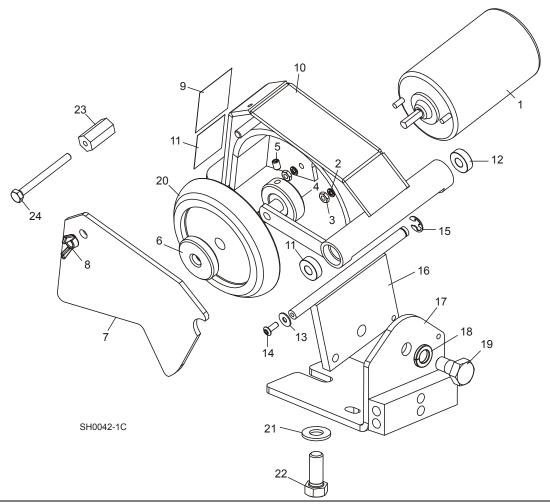
REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	ARM ASSEMBLY, CBN CAM INDEX	010744	1	
1	Knob, Index Arm Adjustment	S09733	2	
2	Adjustment Weldment, Pawl	010702	1	•
3	Spring, Index Arm LC-045G-7SS	P09816	1	
4	Bushing, 3/4" Long Flanged	004653	1	
5	Pin, 1/8" x 3/4" Roll	F05012-6	1	
6	Arm Weldment, Cam Index	010742	1	
7	Washer, 3/8" Lock	F05011-36	1	
8	ROD, CAM BRAKE	S10663	1	
9	SPRING, CAM BRAKE	P06460	1	
	MOUNT ASSEMBLY, CAM MOTOR	A10690	1	



10	Mount Weldment, Cam Motor	W10685	1	•
11	Shaft, Cam Drive	S09734	1	
12	Ring, 1.575" I.D. Retaining	F04254-4	1	
13	Bearing, 6203-2NSL 17mm	P06030-2	3	
14	Nut, 5/8-18 Jam	F05010-11	1	
	MOTOR ASSEMBLY, AGA CAM DRIVE	A10365	1	
	Motor Assembly, AGA Cam Drive	A10520	1	•
15	Motor, 53:1 Gear	P09698-1	1	•
	Housing, Klauber Motor End	P12756	1	
	Gear Kit, Klauber Motor Replacement	P12569	1	
	Brush Kit, Gear Motor Replacement	P12800	1	
	Shaft Kit, Klauber Gear Motor Replacement	009695	1	
16	Pin, 1/8" x 9/16" Dowel	S10528	1	
17	Screw, #10-32 x 1/2" Button Head	F05004-56	4	
18	SCREW, #10-24 X 3/8" PHILLIPS HEAD	F05004-3	8	
19	HINGE, 2" CAM COVER	P09800	1	
20	NUT, #10-24 SELF-LOCKING	F05010-14	4	
21	COVER, AGA CAM	S09811	1	
22	DECAL, MOVING CAM WARNING	S10692	1	
23	BOLT, 5/16-18 X 3/4" HEX HEAD GRADE 2	F05006-5	1	
24	NUT, 5/16-18 HEX	F05010-17	1	
25	BRACKET, MAGNETIC SHUTOFF SWITCH MOUNT	S09838	1	
26	SWITCH, MAGNETIC SHUTOFF	A10514	1	
27	MAGNET, ORANGE SHUTOFF	S10519-1	3	
	CAM ASSEMBLY, CBN PROFILE 7/8" - 1 1/4" BLADE (STANDARD)	060046 ¹	1	
	CAM ASSEMBLY, PRO GRINDER 5/8" - 7/8" BLADE (OPTIONAL)	010745 ¹	1	
	CAM ASSEMBLY, PRO GRINDER 1/2" - 3/4" BLADE (OPTIONAL)	060092 ¹	1	
28	Cam, Profile Index 7/8" - 1 1/4" Tooth Spacing	057401	1	•
	Cam, Profile Index 5/8" - 7/8" Tooth Spacing	010741	1	•
	Cam, Profile Index 1/2" - 3/4" Tooth Spacing	060091	1	•
29	Screw, 3/8-24 x 3/4" Socket Head Set	F05007-95	2	
30	Stud, Index Arm Mount	S10657	1	♦
31	WASHER, .5" X .75" X 1/16" NYLON	P05251-1	1	
32	WRENCH, COLLET	P07032	1	
33	WASHER, 5/16" STANDARD FLAT	F05011-16	1	
34	BOLT, 5/16-18 X 1/2" HEX HEAD GRADE 5	F05006-15	1	
35	BOLT, 3/8-16 X 1" HEX HEAD	F05005-7	2	

¹ Cam 060046 for blades with 7/8" - 1 1/4" tooth spacing provided as standard equipment on grinder. Cam 010745 for blades with 5/8" - 7/8" tooth spacing and Cam 060092 for blades with 1/2" - 3/4" tooth spacing available separately.

5.8 Grinder Assembly

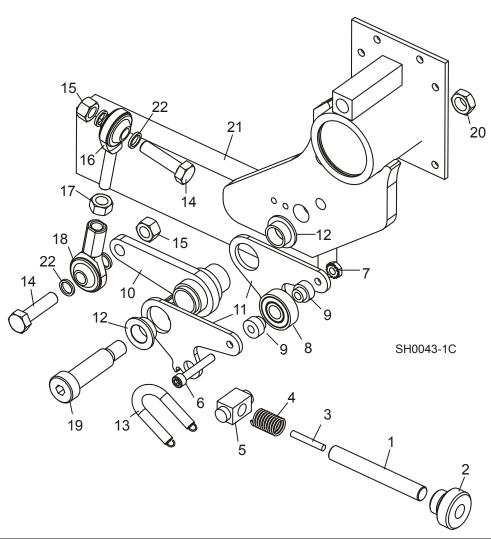


REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NO.	QTY.	
	HEAD ASSEMBLY, AGA-CBN GRINDER (Includes Items 1 - 11 only)	010760	1	
1	Motor Assembly, AGA Grinder	A04665	1	
	Motor Assembly, 12 Volt DC w/Harness	A10701	1	•
	Motor, 12 VDC	016706	1	•
	Brush Kit, Leeson Motor External	034002		
	Connector, 2 Pin	E10551	1	
	Contact, Wire Pin	E10552	2	
	Tube, 3/8" Neoprene	R01897	2 ft.	
	Terminal, 14 Ga. 90° Flag	F05708-1	1	
	Nut, 10 Ga. Crimp Wire	F05609-2	1	
	Tube, 1/4" x 3/8" Plastic	R01890	6.5in	
	Instruction Sheet, Motor Replacement	A04665-235	1	
2	Washer, #10 Split Lock	F05011-20	2	



3	Nut, #10-32 Hex	F05010-27	2	\exists
4	Arbor, Male Wheel	010750	1	_
5	Screw, 1/4-28 x 3/8" Cup Point Set	F05005-24	1	_
6	Nut, Arbor	S04554	1	
7	Cover, Grinder Head	S10668	1	
8	Nut, 5/16-18 Wing	F05010-23	1	
9	Decal, Eye Protection Warning	S10691	1	
10	Head Weldment, AGA Grinder	W10667	1	
11	Decal, Blade Reorder	010697	1	
12	BEARING, R6-2NSL SRI-2 ABEC-1	P10688	2	
13	WASHER, #10 SAE FLAT	F05011-18	1	
14	SCREW, #10-32 X 1/2" BUTTON HEAD	F05004-29	1	
15	CLIP, 3/8" E	P10689	1	
	BASE ASSEMBLY, AGA GRINDER	A10666	1	
16	Plate Weldment, Vertical Pivot	W10680	1	
17	Base Weldment, AGA Grinder	W10677	1	
18	Washer, 1/2" Split Lock	F05011-9	1	
19	Bolt, 1/2-13 x 1" Hex Head Grade 2	F05008-50	1	
20	WHEEL, 10/30 3/4" TOOTH SPACE .243" TOOTH HEIGHT CBN PROFILE GRINDING	053296	1	
	WHEEL, 9/29 7/8" TOOTH SPACE .220" TOOTH HEIGHT CBN PROFILE GRINDING	030380	1	
	WHEEL, 10/30 7/8" TOOTH SPACE .250" TOOTH HEIGHT CBN PROFILE GRINDING	030381	1	
	WHEEL, 13/29 7/8" TOOTH SPACE .300" TOOTH HEIGHT CBN PROFILE GRINDING	030389	1	
	WHEEL, 4/32 7/8" TOOTH SPACE .250" TOOTH HEIGHT CBN PROFILE GRINDING	050744	1	
	WHEEL, 12/28 21/32" TOOTH SPACE .200" TOOTH HEIGHT CBN PROFILE GRINDING	030395	1	
	WHEEL, 7/34 7/8" TOOTH SPACE .295" TOOTH HEIGHT CBN PROFILE GRINDING	053294	1	
	WHEEL, 10/30 1" TOOTH SPACE .330" TOOTH HEIGHT CBN PROFILE GRINDING	053300	1	
	WHEEL, 10/30 1" TOOTH SPACE .246" TOOTH HEIGHT CBN PROFILE GRINDING	053302	1	
	WHEEL, 13/29 1 1/8" TOOTH SPACE .330" TOOTH HEIGHT CBN PROFILE GRINDING	053033	1	
	WHEEL, 10/30 1 1/8" TOOTH SPACE .330" TOOTH HEIGHT CBN PROFILE GRINDING	053034	1	
21	WASHER, 1/2" SAE FLAT	F05011-2	1	
22	BOLT, 1/2-20 X 1 1/4" HEX HEAD	F05008-108	1	
23	PULLER, WHEEL ARBOR	010757	1	
24	BOLT, 1/4-20 X 2 3/4" HEX HEAD FULL THREAD	F05005-92	1	
	TOOL, AGA ALIGNMENT	010706	1	
	WASHER, 1/2" SAE FLAT (SPACER FOR ALIGNMENT TOOL)	F05011-2	2	
		<u> </u>		=

5.9 Lift Assembly

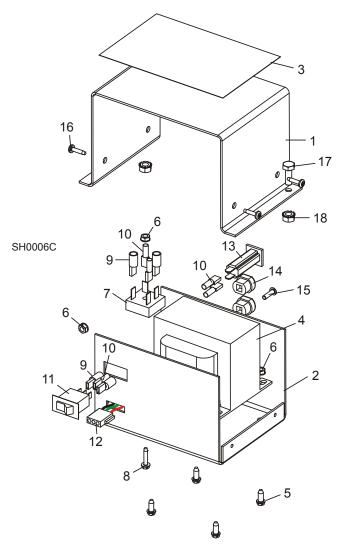


REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	LIFT ASSEMBLY, AGA GRINDER	A09822	1	
	Screw Assembly, Back Grind	A09765	1	
1	Rod, Back Grind Screw	S09701	1	•
2	Knob, Back Grind Screw	S09733	1	•
3	Pin, 5/32" x 1" Hardened Dowel	F05012-28	1	
4	Spring, Back Grind LC-045G-7SS	P09816	1	
5	Block, Back Grind Knob Trunnion	S09730	1	
6	Screw, #10-24 x 1 1/4" Socket Head	F05004-31	1	
7	Nut, #10-24 Self-Locking	F05010-14	1	
8	Bearing, #629	P06049	1	
9	Spacer, Lift Bracket Bearing	S09702	2	



10	Lift Bracket, AGA Grinder	W09764	1	
11	Arm, AGA Lift	S09699	2	
12	Bushing, SF1620-6 Bronze	P08060	2	
13	Spring, Lift Arm LE-031C-8SS	P09817	1	
14	BOLT, 5/16-18 X 1" HEX HEAD	F05006-1	2	
15	NUT, 5/16-18 HEX LOCK	F05010-6	2	
16	END, 5/16-24 MALE ROD	P09814	1	
17	NUT, 5/16-24 HEX	F05010-28	1	
18	END, 5/16-24 FEMALE ROD	P09813	1	
19	BOLT, 1/2" X 1 1/2" SHOULDER	F05008-36	1	
20	NUT, 3/8-16 HEX JAM	F05010-29	1	
21	MOUNT WELDMENT, CAM MOTOR (See Section 5.7)	W10685	1	•
22	SPACER, ROD END	060188	4	

5.10 Transformer Assembly

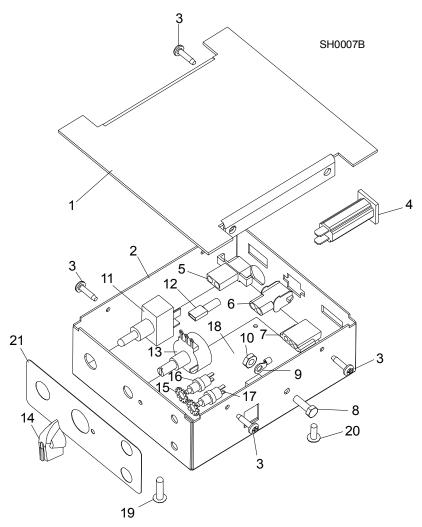


REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	TRANSFORMER, 110V TO 12V AGA	A10549-110	1	
	TRANSFORMER, 220V TO 12V AGA	A10531-220	1	
1	Cover, AGA Transformer	S10487	1	
2	Base, AGA Transformer	S10488	1	
3	Decal, GFI 110V Transformer Danger	P10526-110	1	
	Decal, GFI 220V Transformer Danger	P10526-220	1	
4	Transformer, 250VA 120/240V-12/24V	073573	1	•
5	Screw, #8-32 x 1/2" Slotted Hex Head	F05015-18	4	
6	Nut, #8-32 Self-Locking	F05010-41	6	
7	Rectifier, 50PIV Bridge	E10456	1	
8	Screw, #8-32 x 3/4" Slotted Hex Washer Head	F05015-23	1	



9	Terminal, 1/4" Quick 10-12 Ga. Female	F05708-9	4	•
10	Terminal, 1/4" Quick 14-16 Ga. Female	F05708-10R	5	•
	Switch, AGA On/Off	A10703	1	
11	Switch, Lighted Rocker	E10473	1	•
	Instruction Sheet, Switch Replacement	A10703-495	1	
12	Harness Assembly, LTAGA Power Supply DC Out	053328	1	
13	Breaker, 3 Amp Circuit (110V Transformer)	E10466	1	
	Breaker, 2 Amp Circuit (220V Transformer)	E10560	1	
14	Grommet, #1207 Heyco	P06254	2	
15	Screw, #8-32 x 5/8" Socket Button Head	F05004-98	1	
16	Screw, #8 x 5/8 Phillips Head Pan A	F05015-3	4	
17	BOLT, 1/4-20 X 3/4" HEX HEAD FULL THREAD	F05005-1	2	
18	NUT, 1/4-20 SELF-LOCKING	F05010-9	2	

5.11 Control Assembly

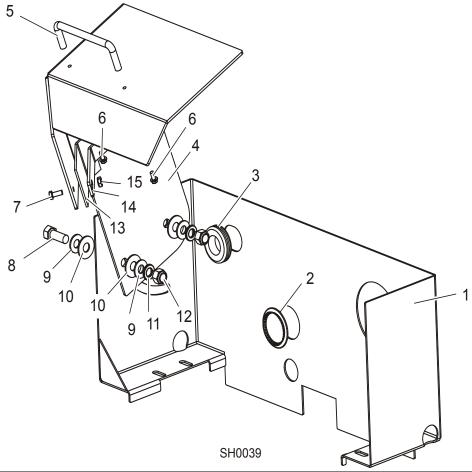


REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	CONTROL ASSEMBLY, AGA	A10600	1	
1	Cover, AGA Control Box	S10522	1	
2	Base, AGA Control	S10694	1	
3	Screw, #8 x 5/8" Phillips Pan Head A	F05015-3	4	
4	Breaker, 15 Amp Circuit	E10698	1	
5	Connector, 2-Pin Tapered	E10483	1	•
6	Connector, 2-Pin Rectangle	E10480	1	•
7	Connector, 3-Pin Rectangle	E10474	1	•
8	Bolt, #10-24 x 5/8" Hex Head	F05004-18	1	
9	Terminal, #10 14-16 Ga. Ring	F05092-9R	1	•
10	Nut, #10-24 Self-Locking	F05010-14	1	



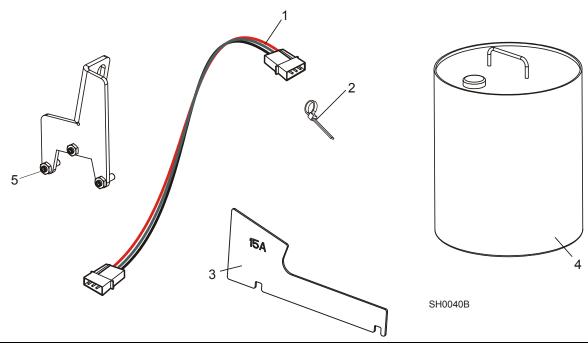
11	Switch, On/Off Toggle	P03027	1	
12	Terminal, 1/4" Quick 14-16 Ga.	F05708-10R	1	
13	Switch, AGA Speed Control	E20519	1	
14	Knob, Speed Control	P06257	1	
15	Washer, 1/4" I.D. Lock	F05011-37	2	
16	Switch, AGA Black Start	E10472	1	
17	Switch, AGA Red Stop	E10471	1	
18	Circuit Board, AGA Control	A10696	1	•
19	Pin, 3/8" Long Circuit Board Mount	P10489	2	•
20	Pin, 3/8" Short Circuit Board Mount	P10452	2	•
21	Decal, AGA Front Panel	010704	1	

5.12 Splash Guards



REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.
1	GUARD WELDMENT, REAR SPLASH	010729	1
2	PLUG, 1 1/2" STEEL FINISHING	010749	1
3	GROMMET, 7/8" ID X 1 1/4" GROOVE DIAMETER	P702	1
4	GUARD, FRONT SPLASH	010736	1
5	HANDLE, WITH BOLTS	P08065	1
6	Bolt, #8-32 x 3/8" Self Tapping	F05015-8	2
7	SCREW, 10-24 X 1/2" UNSLOTTED INDUSTRIAL HEX HEAD MACHINE	F05004-27	2
8	SCREW, 3/8-16 X 1" HEX HEAD CAP	F05007-7	2
9	WASHER, 3/8 FLAT	F05011-3	4
10	WASHER, 13/32" ID X 1.0" OD X .06" NYLON	F05011-83	4
11	WASHER, 3/8" SPLIT LOCK	F05011-4	2
12	NUT, 3/8-16" HEX NYL LOCK	F05010-10	2
13	WIPER, RUBBER	010752	1
14	PLATE, SPLASH GUARD	010751	1
15	NUT, #10-24 SELF LOCKING	F05010-14	2

5.13 Miscellaneous Parts



REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
1	HARNESS, AGA TRANSFORMER/CONTROL	A10532	1	
2	STRAP, 1/4" X 6" TIE	F05089-1	6	
3	TEMPLATE, 15° HEAD ANGLE	060246	1	
4	OIL, 5 GALLONS #165-CE GRINDING	010740	1	
	DYE, 40Z RED LAYOUT	057791	1	
	TOOL KIT, ALIGNMENT	010706	1	
5	Tool, Alignment	010722	1	•

SECTION 6 MAINTENANCE & TROUBLESHOOTING

6.1 Wiring Diagram

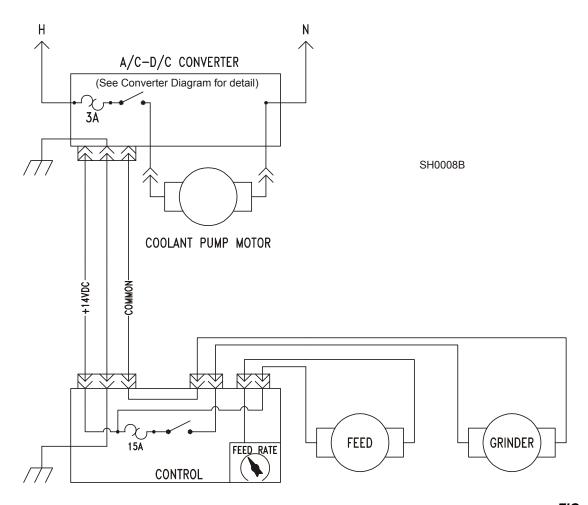
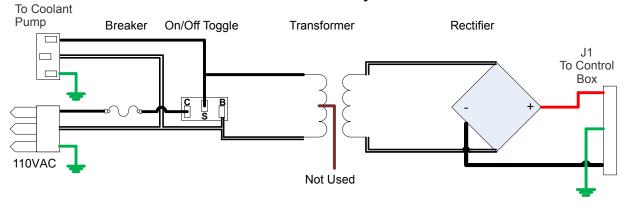


FIG. 6-1

6.2 Converter Diagram (w/P09743 Transformer)

110VAC LTAGA Transformer Assembly w/P09743 Transformer



SH0055

220VAC LTAGA Transformer Assembly w/P09743 Transformer

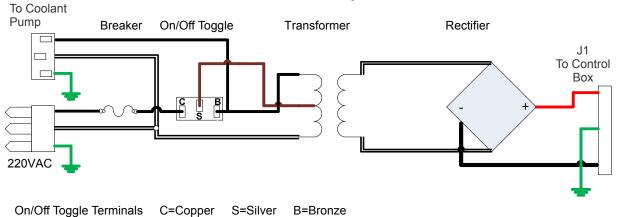
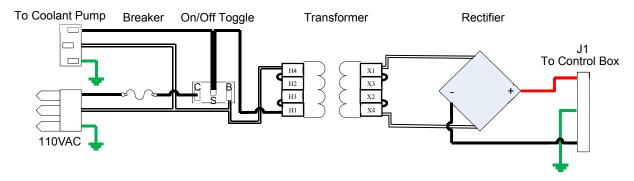


FIG. 6-2

6.3 Converter Diagram (w/073573 Transformer)

110VAC LTAGA Transformer Assembly w / 073573 Transformer



220VAC LTAGA Transformer Assembly w / 073573 Transformer

SH0056

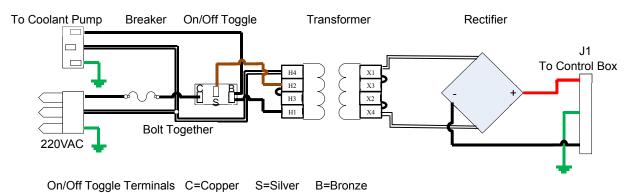


FIG. 6-3

Maintenance & Troubleshooting Sharpener Maintenance

6.4 Sharpener Maintenance

- Wipe the sharpener dry after each day's use.
- Keep clean of dirt, rust, and metal filings.
- Remove the clamp regularly and clean out any buildup that might cause it to not clamp the blade firmly. When replacing clamp, replace it flat against the stop block.
- Clean sediment from the oil pan and filter magnets as needed.

6.5 Blade Sharpening Tips

This section covers some of the common problem areas of blade sharpening.

Before removing from the saw, clean the blade by running the waterlube on the blade for 15 seconds. This will remove most of the sap buildup that would otherwise have to be scraped off when it dries. Wipe with a clean dry rag.

Make sure a strong flow of oil flows through the oiler assembly.

Sharpen the blade when it first shows signs of dullness. If the blade is extremely dull, due to hitting a rock or some form of foreign matter, sharpen the blade twice lightly, instead of trying to remove too much in one grind. Grinding too much material at once may cause the circuit breaker on the back of the control box to kick out. If this happens, wait 15 seconds. Then push in and release circuit breaker.

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