

# Automatic Sharpener

(Safety, Operation, Maintenance  
& Parts Manual)

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AGA

rev.S.06

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



**WARNING!** Read and understand this manual before using this machine.

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## 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-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 GFIs.



**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.

**WARNING!** NEVER dress the wear area of the grinding wheel by using the dressing stone on the side surface of the wheel. Doing so could cause the wheel to explode, resulting in personal injury and/or machine damage.

**WARNING!** Always check the grinding wheel for cracks or chips before using it. NEVER use a cracked or chipped wheel. Doing so may result in severe personal injury and/or machine damage.



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

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

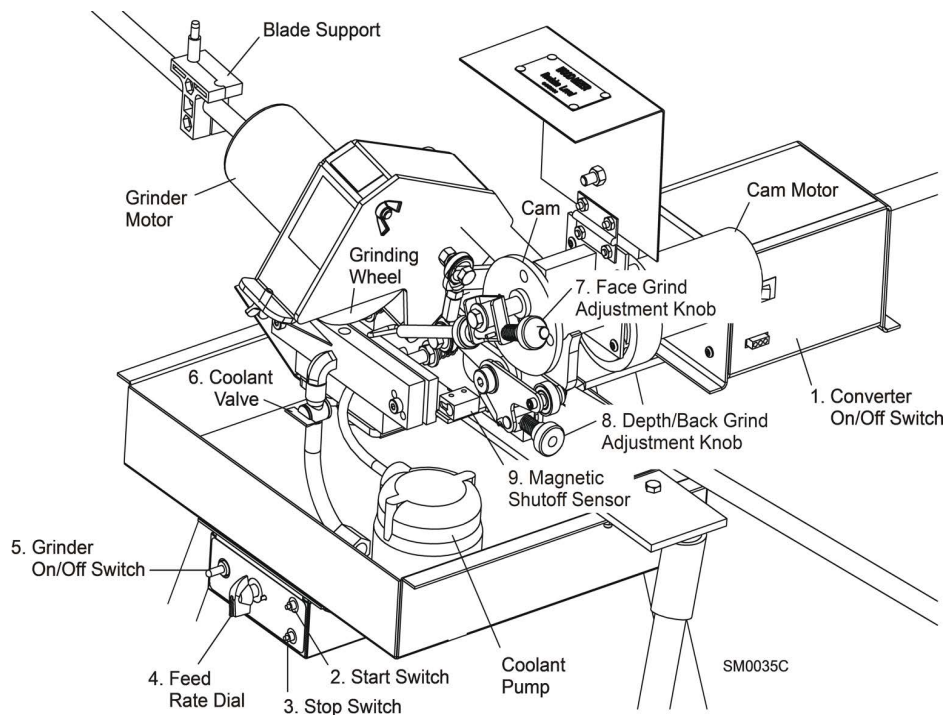
**CAUTION!** Always turn off the converter box after you have finished sharpening for the day. LEAVING THE POWER ON COULD DAMAGE THE PUMP!

**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. Coolant Valve. Controls coolant flow.
7. Face Grind Adjustment Knob. Controls amount of metal ground from face of tooth.
8. Depth/Back Grind Adjustment Knob. Controls how far the grinding wheel comes down against the gullet and back side of teeth.
9. 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) is shipped preassembled. Additional assemblies and parts include:

- Two-height Stand Assembly
- Pump and Coolant
- Blade Support Arms
- Grinding Wheels
- 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
Stone, Wheel Dressing	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
Template, Multi-Angle	1
Template, 7/34 AGA	1
Template, 4/32 AGA	1

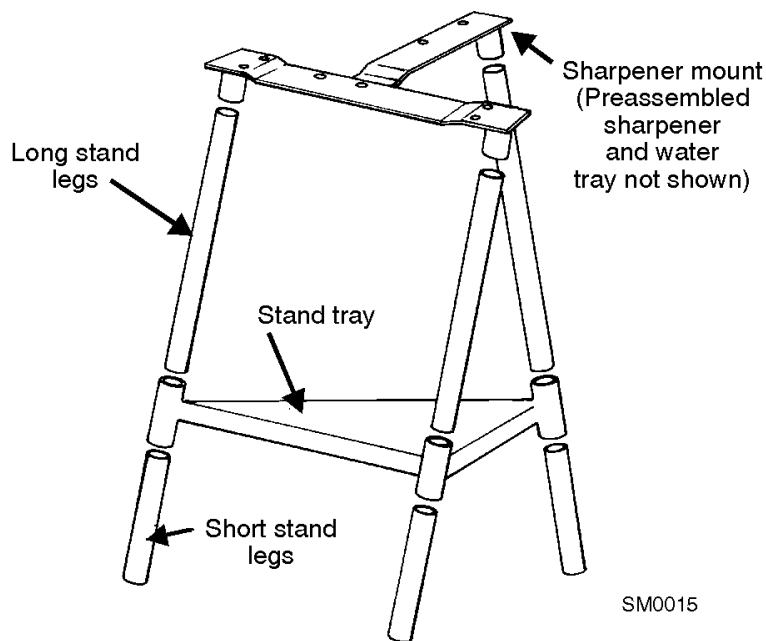
## 2.1 Stand Assembly

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 water. 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.

The pump conducts coolant from the water tray through the Loc-line valve and up through an opening in the blade clamp assembly.

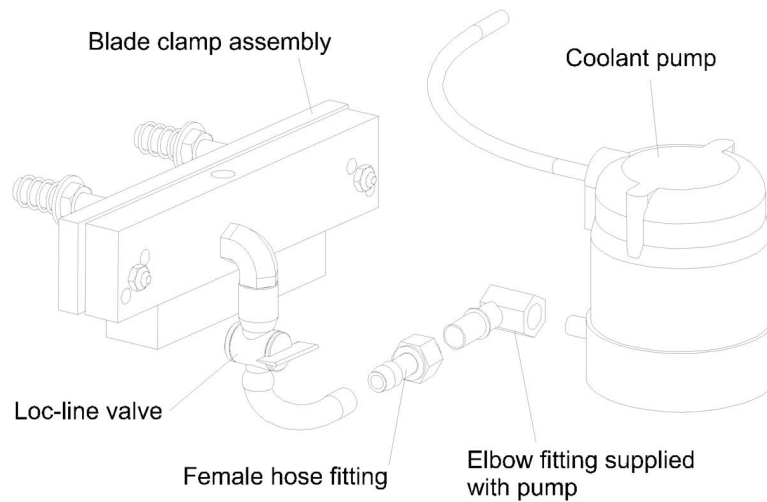
1. Plug the hole in the water tray with the rubber stop supplied in the bag assembly.
2. Connect the elbow fitting supplied with the pump to the threaded pump outlet. Install the female hose fitting from the bag assembly to the pump elbow fitting. Lay the pump in the water tray.

**See Figure 2-2.**

## 2

### Assembly Pump Installation

3. Connect the hose from the Loc-line valve to the female hose fitting on the pump.



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**FIG. 2-2**

4. Plug the pump into the top cord on the converter box. Plug the converter into a grounded receptacle.

5.

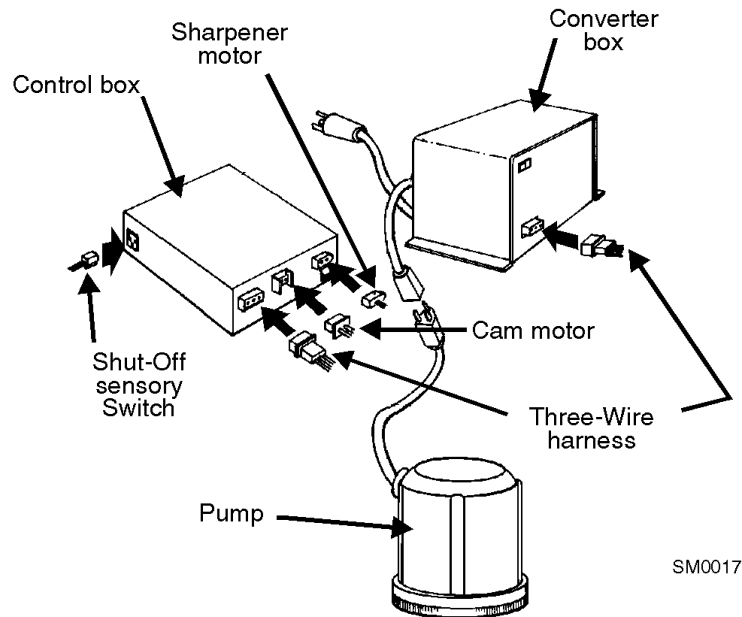
### 2.3 Coolant Installation

Coolant is pumped from the water tray through the Loc-line water valve to the grind area. Be sure the rubber stop is properly installed before filling the water tray.

Pour 5 quarts of water into the water tray. Add about 1/6 bottle of coolant concentrate. (This makes a solution of approximately 1 part coolant to 30 parts water.) Add 30:1 solution as necessary to keep the level 1" from the top of the tray.

## 2.4 Electrical Installation

See **Figure 2-3**. Slide the control box into the slots under the water tray. Make electrical connections to the control box as shown.



**FIG. 2-3**

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

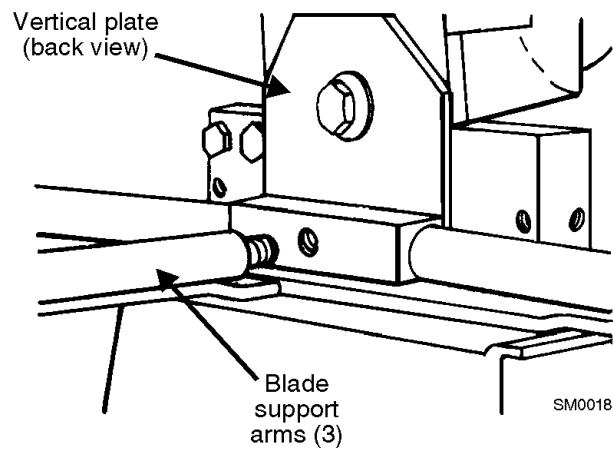
1. Turn the CONVERTER switch on. The switch should light, showing that the converter is on.
2. Turn the LOC-LINE valve counterclockwise. This opens the valve and starts the water flow, showing that the pump is operating.
3. With the FEED RATE all the way down, push the START button on the control box. 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.

## 2.5 Blade Support Installation

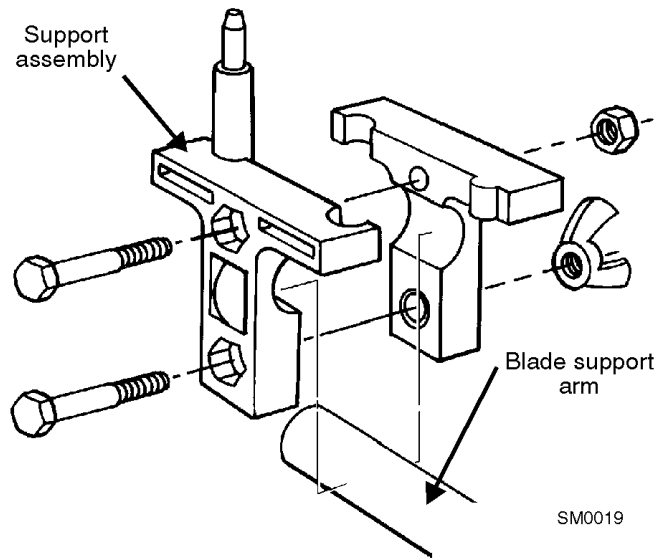
The blade support assembly includes three blade support arms and three blade support guide assemblies.

**See Figure 2-4.** 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. 2-4**

**See Figure 2-5.** 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 bot-tom bolts with the wing nuts.



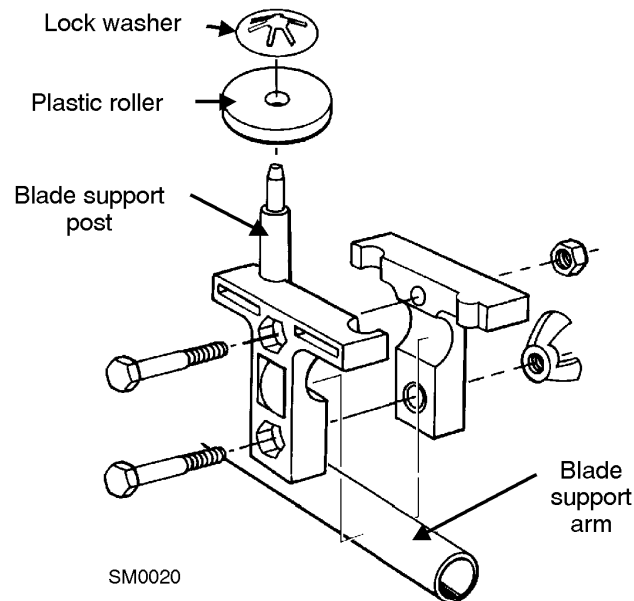
**FIG. 2-5**

## 2

### Assembly

#### Blade Support Installation

See **Figure 2-6**. 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. 2-6**

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.

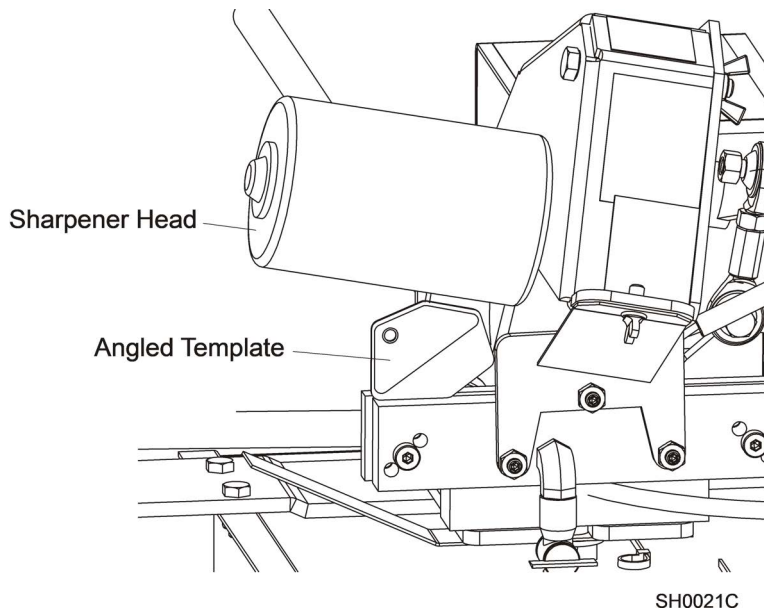


## 2.6 Hook Angle Adjustment

A multi-angle template, which includes angles for 10, 12.5 and 15 degrees, is provided to check hook angle. A separate template for 7° is also provided.

**Note:** Refer to the Wood-Mizer Blade Handbook for recommended hook angle specifications for your sawing application.

**See Figure 2-7.** To adjust hook angle, set the straight part of the template on the clamping fixture. Loosen the depth adjustment and/or the depth stop knob until the sharpener head rests on the template.



**FIG. 2-7**

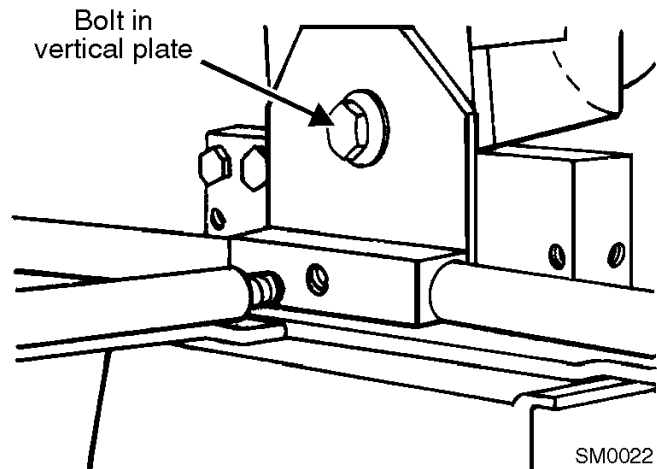
# 2

## Assembly

### Hook Angle Adjustment

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**See Figure 2-8.** 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 hook angle with the template.



**FIG. 2-8**

## 2.7 Grinding Wheel Installation

For sharpening Wood-Mizer blades, select a 5" (12.5 cm) diameter, 1/4" (6.5 mm) wide grinding wheel with a 1/2" (12.5 mm) bore. Wheels approved for use with the Automatic Sharpener are available from Wood-Mizer. To order, call our toll-free Parts hotline at **1-800-525-8100**. If your sharpener was purchased outside of the United States, contact your distributor for replacement parts.



**WARNING!** Always check the grinding wheel for cracks or chips before using it. NEVER use a cracked or chipped wheel. Doing so may result in severe personal injury and/or machine damage.

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.

## 2

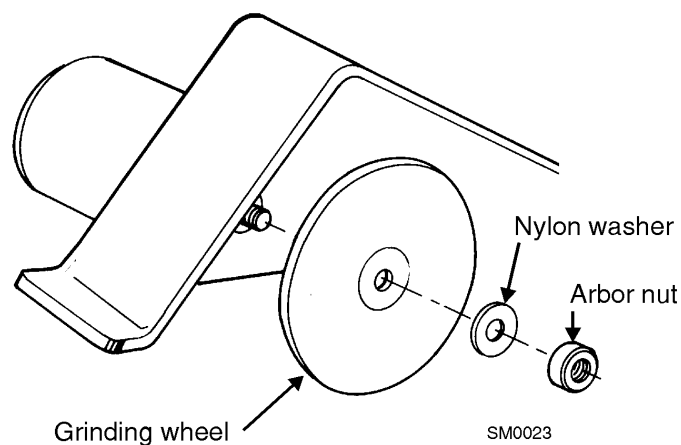
### Assembly

#### Grinding Wheel Installation

**See Figure 2-9.** Remove the arbor nut and nylon washer from the motor shaft. Slide a grinding wheel onto the shaft. Replace the nylon washer. 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. 2-9**

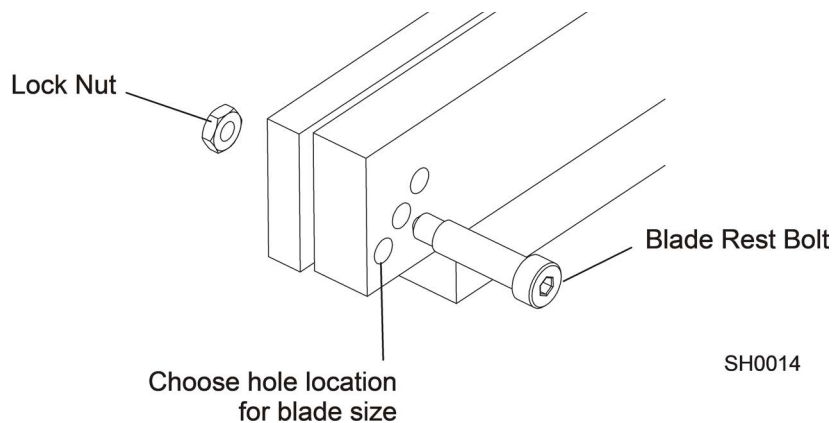
After installing the grinding wheel, hold the sharpener head up with your hand and turn the back/depth grind knob until you can lower the head and the grinding wheel will not contact the blade. Carefully lower the sharpener head.

## 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 2-10.** 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. 2-10**

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.

## 2

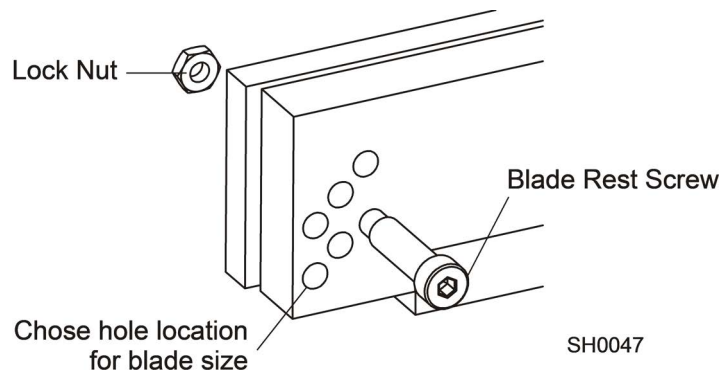
### Assembly

#### Optional Blade Clamp

##### 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.

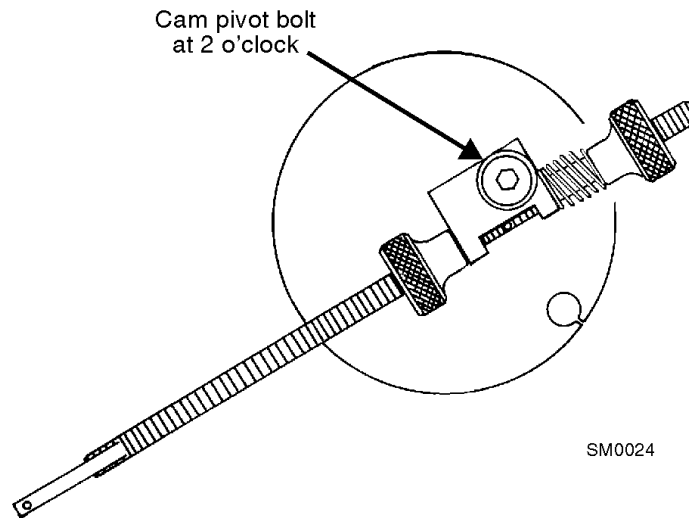
**See Figure 2-11.** Use the upper set of holes for 1" blades, the next set of holes for 1 1/4" blades, the third set of holes for 1 1/2" blades, the fourth set of holes for 1 3/4" blades and the bottom set of holes for 2" blades.



**FIG. 2-11**

## 2.9 Blade Installation

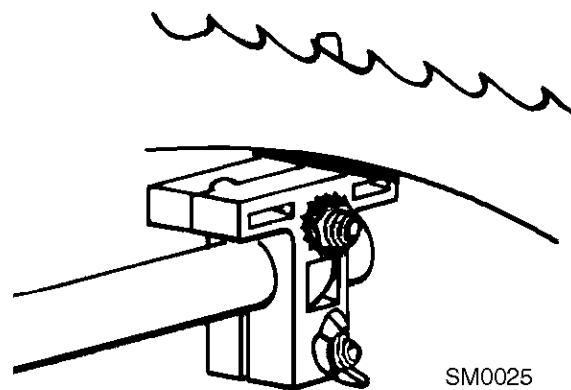
See **Figure 2-12**. Before installing a blade, push START and turn the FEED RATE dial until the cam pivot bolt is at the 2 o'clock position.



**FIG. 2-12**

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 2-13**. Position the blade inside the left and rear blade support posts.



**FIG. 2-13**

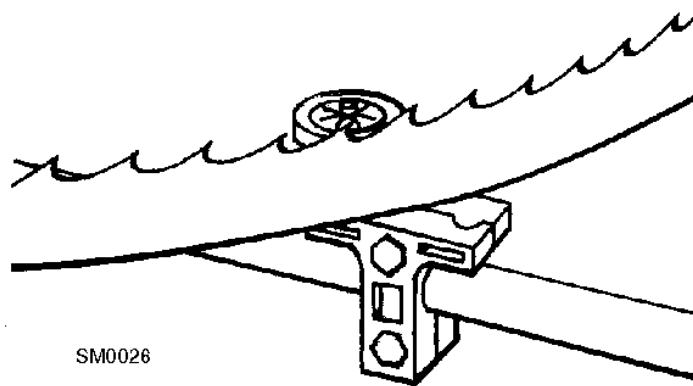
## 2

### Assembly

#### Blade Installation

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See **Figure 2-14**. Position the blade outside the right blade guide wheel.



**FIG. 2-14**

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. Engage the blade clamping fixture.

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 coolant from the blade into the water tray so it does not drip on the floor.



## 2.10 Grinding Wheel Shape



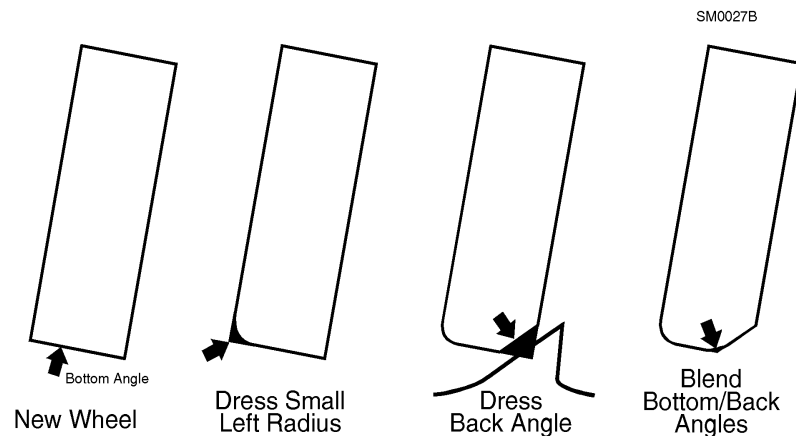
**WARNING!** Always wear eye protection when operating the sharpener. Failure to do so may result in serious injury.

The following section explains how to dress a new grinding wheel and how to maintain the shape of the wheel as you use it to sharpen blades.

### Dressing A New Wheel

See **Figure 2-15**. There are three steps in dressing the grinding wheel. They are:

1. Dress a small radius on the left corner.
2. Dress the right corner at the tooth back angle.
3. Blend the back and bottom angles.



**FIG. 2-15**

To dress the wheel, turn the converter switch on, push the START button on the control box. Turn the grinder switch to ON to start the grinding wheel spinning.

**NOTE:** Keep the FEED RATE dial turned all the way down to prevent the cam from moving while you dress the grinding wheel.

Use a flat side of the provided dressing stone to shape the wheel as follows:

First, dress a small radius on the left corner. Blend the radius with the bottom of the wheel.

## 2

### Assembly

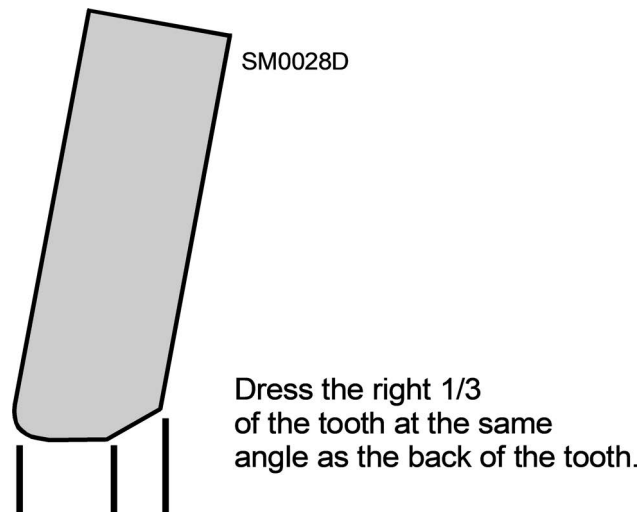
#### Grinding Wheel Shape

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**See Figure 2-16.** Dress the right 1/3 of the wheel at the same angle as the back of the tooth.

The shape of the wheel will be refined after the sharpener has been adjusted to grind the blade.

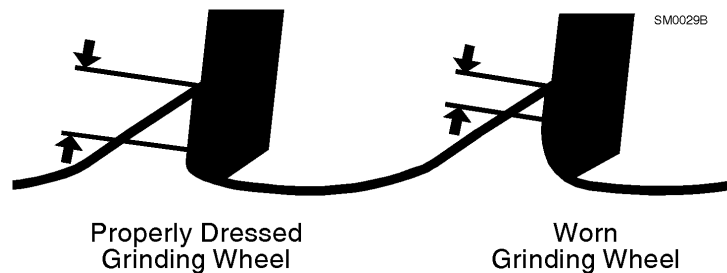
Turn the grinder switch to OFF and push the STOP button on the control box.



**FIG. 2-16**

### Maintaining Wheel Shape

See **Figure 2-17**. The shape at which you have dressed the wheel must be maintained. It is especially important to maintain the small radius on the left corner of the wheel. This is the section that wears quickest. As the radius increases during sharpening, it starts to grind into the tooth face and leaves little or no hook angle in the tooth.



**FIG. 2-17**

If the radius becomes too large, redress the grinding wheel by redressing the bottom angle. Then, if necessary, redress the left radius and the back angle. Blend the left radius and right back angle with the bottom angle.



**WARNING!** NEVER dress the wear area of the grinding wheel by using the dressing stone on the side surface of the wheel. Doing so could cause the wheel to explode, resulting in personal injury and/or machine damage.

**NOTE:** As the wheel becomes smaller in diameter, it has less surface area to grind with and will wear down more quickly. Check the wheel regularly and redress as necessary.

**IMPORTANT:** When sharpening a blade, particles can become lodged in the grinding wheel that can burn or groove the gullet of the blade. Burns or grooves in the gullet create microscopic stress fractures which will eventually cause the blade to break prematurely. Lightly dress the wheel to remove lodged particles and prevent the wheel from burning or grooving the blade.

## 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 and dressed properly.



**IMPORTANT!** The sharpener is equipped with a cam to sharpen standard Wood-Mizer blades with a “10/30” profile. Other cams are provided to allow you to sharpen blades used for different sawing applications. [See Form #502](#) enclosed for a complete description of how and when to use the two cams. [See Form #214](#) enclosed for instructions on how to change the cam, if necessary.

There are three important areas to monitor when sharpening blades:

1. Hook Angle
2. Tooth Height
3. Sharpness of Teeth

The hook angle has already been set and, assuming you maintain proper grinding wheel shape, should remain constant.

The remaining areas, tooth height and sharpness, are controlled by using the face and depth/back grind adjustment knobs.

To make these adjustments, inspect the blade carefully with proper lighting.

### 3.2 Face Grind Adjustment

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 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.

Before adjusting the face grind, turn the cam motor off using the STOP button on the control box. Turn the FEED RATE dial all the way down.

Lift the Sharpener head. Push the START button on the control box and slowly increase the FEED RATE until the next tooth is underneath the grinding wheel. Release the Sharpener head and continue the FEED RATE until the bottom of the grinding wheel reaches the midpoint of the tooth face.

Turn the FEED RATE all the way down and push the STOP button. Spin the grinding wheel by hand to check the amount of face grind on the tooth.

**See Figure 3-1.** The grinding wheel should lightly contact the face of the tooth all the way up to the tip. 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. Advance the blade and recheck face grind and adjust as necessary.

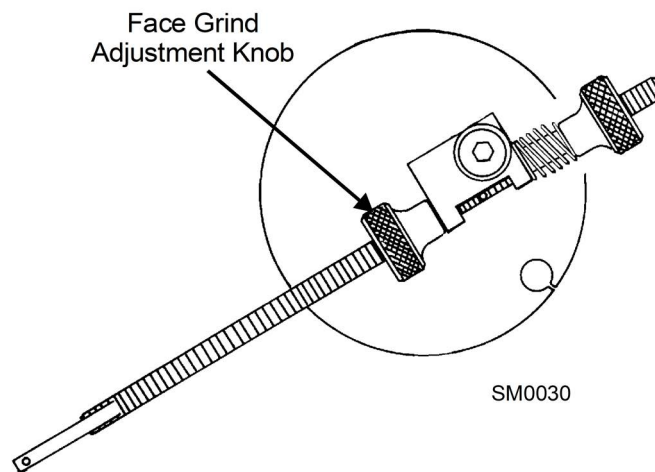


FIG. 3-1

### 3.3 Tooth Height Adjustments

Tooth height is determined by how much material is removed from the gullet of the blade. The depth/back grind knob controls how far the grinding head comes down and therefore controls the gullet grind.

**It is important** to understand that any adjustments of the depth/back grind knob for gullet grind will also affect the back grind. If you use the knob to lower the wheel for more gullet grind, you will have to dress more from the back angle of the wheel to prevent grinding the back of the teeth too heavy. If you dress the wheel for less back grind, you will have to readjust the depth/back grind knob for the gullet grind.


**Note:** Refer to the [Wood-Mizer® Blade Handbook](#) for recommended tooth height specifications for your sawing application.

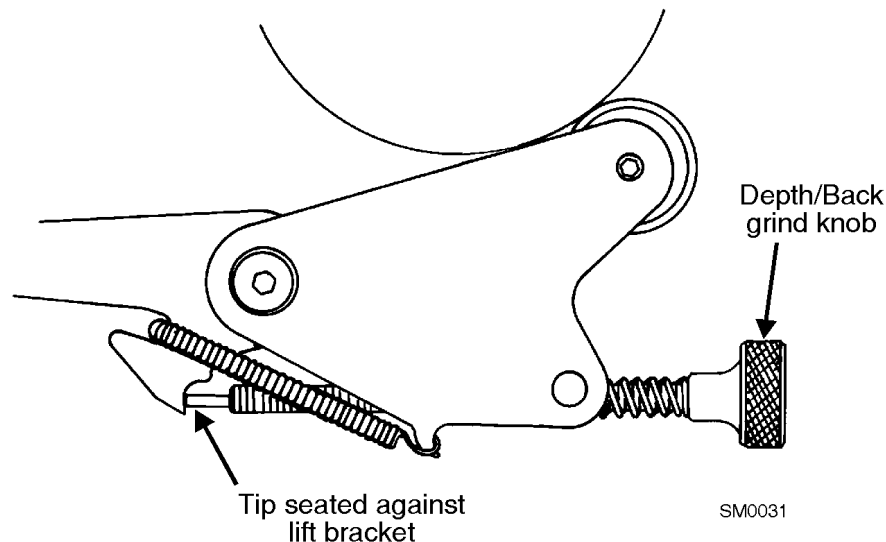
### 3.4 Gullet Grind Adjustment

Advance the blade with the FEED RATE dial until the grinding wheel is positioned over the lowest point of the gullet between teeth. Turn the FEED RATE all the way down and push the STOP button.

Spin the grinding wheel by hand and check how hard the wheel contacts the gullet of the blade.

**See Figure 3-2.** Use the depth/back grind knob to raise or lower the wheel so it lightly touches the gullet. Turn the 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.



**FIG. 3-2**

How much you need to grind from the gullet will be determined by how much tooth height you need (See the [Wood-Mizer® Blade Handbook](#) for tooth height recommendations). Use the depth/back grind knob to control how much material is removed from the gullet.

### 3.5 Back Grind Adjustment

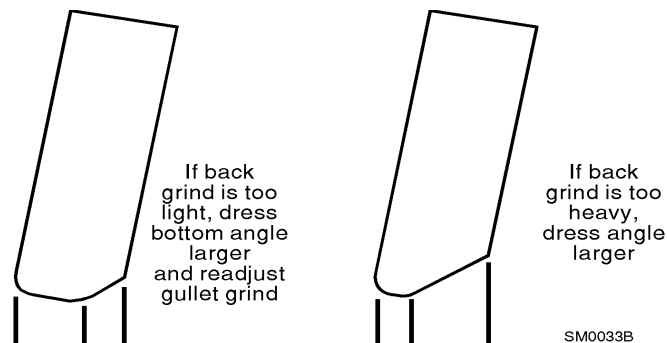
When combined with a light face grind, back grind should remove enough material from the tooth to regain a sharp tip (See the [Wood-Mizer® Blade Handbook](#) for details concerning blade maintenance).

It is important to realize that you can grind a blade and not sharpen the teeth. You need to closely inspect the tips of the teeth to determine if you are actually getting a new, sharp tip.

With the face grind and gullet grind adjusted, you must now dress the back angle of the wheel to provide the desired back grind.

Hold the grinding head up and push the START button. Increase the FEED RATE to advance the blade until the grinding wheel is above the back of a tooth. Lower the head and check the contact of the grinding wheel against the back of the tooth.

**See Figure 3-3.** If the back grind is too heavy, dress the angle on the right side of the grinding wheel larger.



**FIG. 3-3**

If the back grind is too light you will have to redress the bottom angle of the wheel, reset gullet grind, then recheck the back grind.



### 3.6 Sharpener Alignment

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

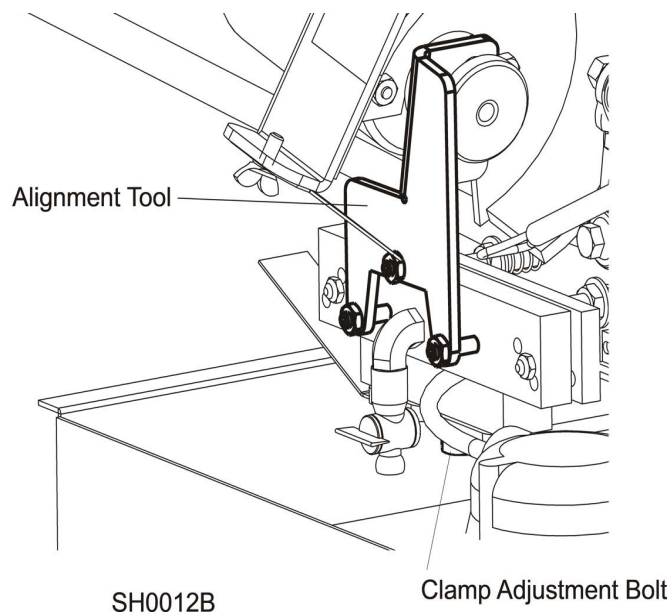


**IMPORTANT!** Do not attempt to adjust the tool gauge points. They have been pre-calibrated at the factory to ensure accurate alignment results.

**IMPORTANT!** The grinding wheel must be 4" in diameter or larger. Do not align the sharpener if the grinding wheel is less than 4".

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 3-4.** Position the tool so all three gauge points are in line with the front clamp plate. Secure the tool in position with the sharpener arbor nut.



**FIG. 3-4**

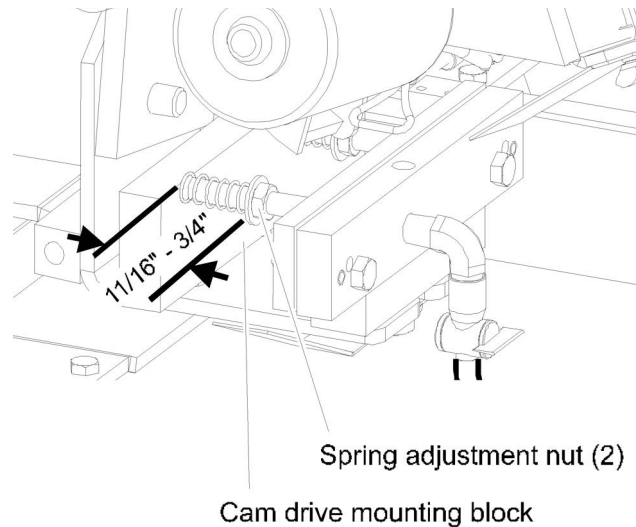
## 2

### Assembly

#### Sharpener Alignment

4. Use a 3/4" wrench to loosen the bottom clamp adjustment bolt.
5. 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 3-5.



SH0013B

**FIG. 3-5**

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

## 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 coolant 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 coolant valve, and turn the grinder off. Check the radius, tooth height and that the tip is completely sharp. Make adjustments with the face and back/depth grind knobs or redress the wheel to provide the desired results.
3. Adjust the face grind so the entire tooth face is lightly ground from the tip to the base of the tooth.
4. Adjust the depth/back grind knob so enough gullet is removed to provide the desired tooth height.
5. Dress the back angle of the wheel larger to lighten the back grind. Grind enough from the back of the tooth to sharpen the entire tip of the tooth.
6. Push the start button, open the coolant 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 resharpener. 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.

Any adjustments of the depth/back grind knob will affect both gullet and back grind. If you use the knob to lower the wheel for more gullet grind, you will have to dress more from the back angle of the wheel to prevent grinding the back of the teeth too heavy. If you dress the bottom angle of the wheel larger for less back grind, you will have to readjust the gullet grind with the depth/back grind knob.

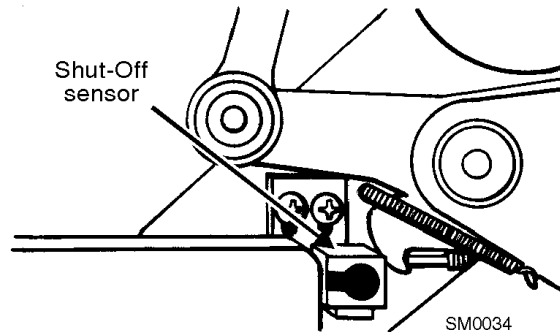
# **4** Sharpener Operation

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*Operation*

## 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.

Lightly dress the grinding wheel to remove particles that may have embedded in the wheel.

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.

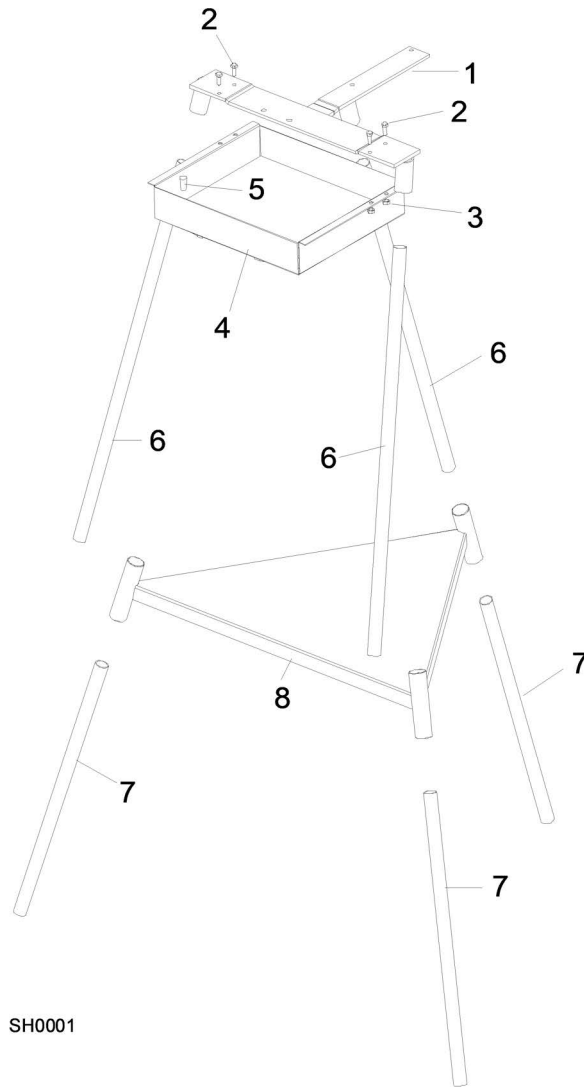
See the sample table below. Sample Part #A01111 includes part F02222-2 and subassembly A03333. Subassembly A03333 includes part S04444-4 and subassembly K05555. The diamond (◆) indicates that S04444-4 is not available except in subassembly A03333. Subassembly K05555 includes parts M06666 and F07777-77.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

<b>5.2 Sample Assembly</b>				
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.

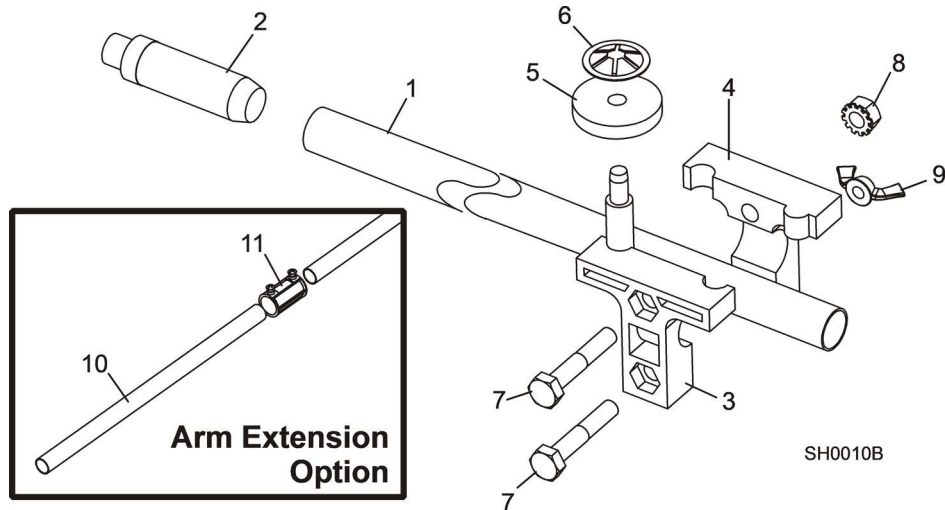
### 5.3 Stand Assembly



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



## 5.4 Blade Support Assembly

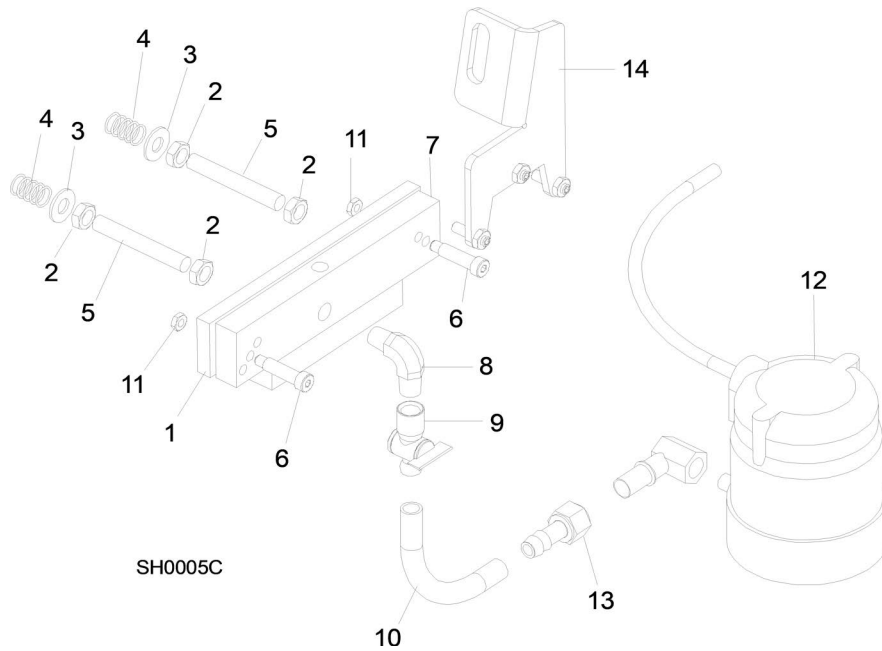


REF	PART #	DESCRIPTION	COMMENTS	QTY.
	A04550	<b>TUBE ASSEMBLY, BLADE SUPPORT</b>		3
<b>1</b>	M04551	Tube, Blade Support	Available in assemblies only.	1
<b>2</b>	P04552	Plug, Blade Support Tube	Available in assemblies only.	1
	A10617	<b>GUIDE KIT, BLADE SUPPORT</b>		1
<b>3</b>	S10611	Guide w/Post, Blade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

# 5 Replacement Parts

## Clamp & Coolant System

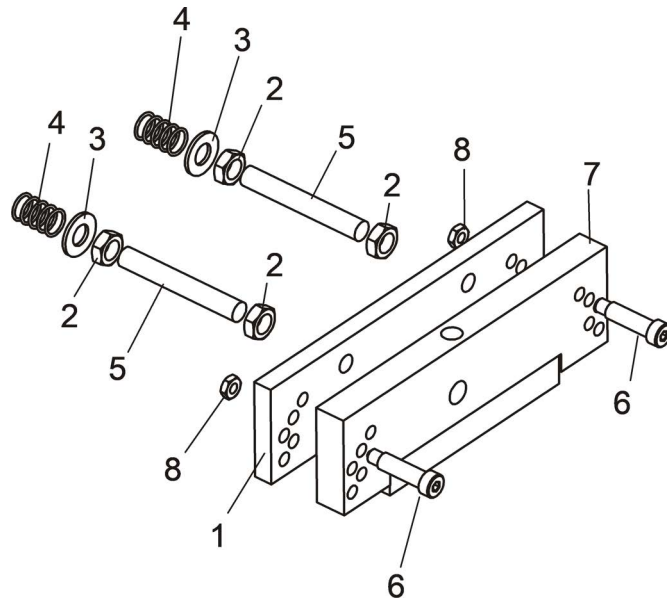
### 5.5 Clamp & Coolant System



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	010654	<b>CLAMP ASSEMBLY, AGA WITH INSTRUCTIONS</b>	Clamp Retrofit 060190 available to allow clamp to accept 1 3/4" & 2" wide blades (See Section 5.8). Longer bolts and spacers provided for lift assembly to allow higher range of movement for grinding head.	1
	A10653	Clamp Assembly, LTAGA	Available in assemblies only.	1
1	S10652	Plate, AGA Moving Clamp	Available in assemblies only.	1
2	F05010-22	Nut, 3/8-24 UNC Hex Jam		4
3	F05011-3	Washer, 3/8 Flat		2
4	P09818	Spring, Clamp Handle LC-067GH-4SS		2
5	010658-1	Stud, 3/8-24 x 2 5/8" Threaded Rod		2
6	010664	Bolt, #10-24 x 1" Socket Head Hardened Shoulder		2
7	W10650	Plate, AGA Fixed Clamp	Available in assemblies only.	1
8	P09140	Fitting, 1/4" NPT Elbow		1
9	P09835	Fitting, 1/4" Loc-Line Valve		1
10	R01885	Hose, Coolant Pump		.333 ft.
11	F05010-42	Nut, #10-24 Hex Lock		2
	010706	Tool Kit, LTAGA Alignment		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
	010654-585	Instruction Sheet, LTAGA Clamp Assembly Replacement		1
<b>12</b>	P09836	<b>PUMP, AGA COOLANT</b>		1
<b>13</b>	P04688	<b>FITTING, 1/4" NPT X 3/8" TUBE</b>		1
	010706	<b>TOOL, ALIGNMENT KIT</b>		1
<b>14</b>	010722	Tool, Alignment	Available in assemblies only.	1

## 5.6 Blade Clamp Retrofit



SH0049

REF	PART #	DESCRIPTION	COMMENTS	QTY.
	060190	<b>CLAMP ASSEMBLY, 2" CLAMP RETRO</b>	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.	1
<b>1</b>	060189	Plate, AGA Moving Clamp	Available in assemblies only.	1
<b>2</b>	F05010-22	Nut, 3/8-24 UNC Hex Jam		4
<b>3</b>	F05011-3	Washer, 3/8 Flat		2
<b>4</b>	P09818	Spring, Clamp Handle LC-067GH-4SS		2
<b>5</b>	010658-1	Stud, 3/8-24 x 2 5/8" Threaded Rod		2
<b>6</b>	010664	Bolt, #10-24 x 1" Socket Head Hardened Shoulder		2
<b>7</b>	060191	Plate, AGA Fixed Clamp	Available in assemblies only.	1
<b>8</b>	F05010-42	Nut, #10-24 Hex Lock		2

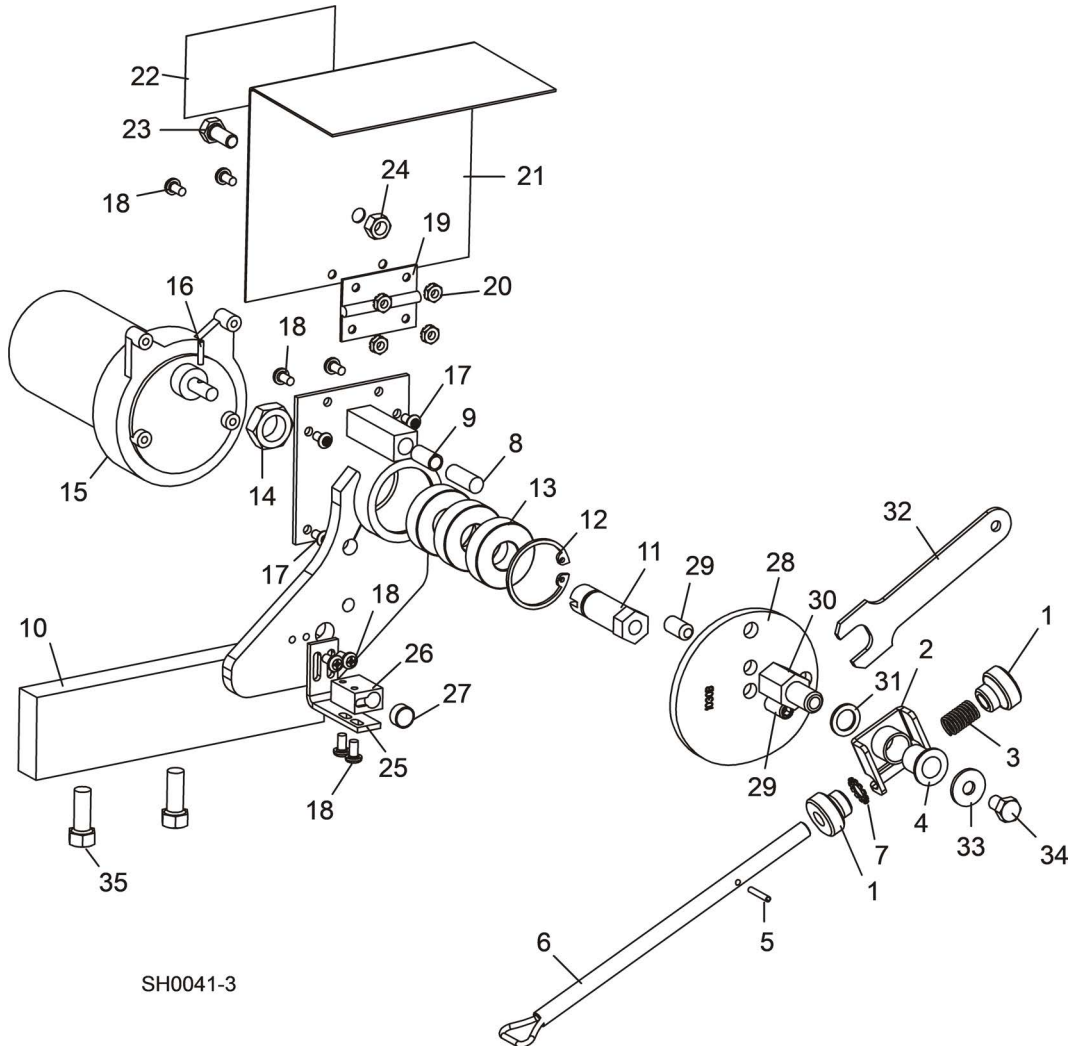
# 5 Replacement Parts

## *Blade Clamp Retrofit*

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REF	PART #	DESCRIPTION	COMMENTS	QTY.
		Lift Assembly Rod End Spacers and Bolts ( <a href="#">See Section 5.9</a> )		
	010706	Tool Kit, LTAGA Alignment		1
	060190-1491	Instruction Sheet, LTAGA 2" Clamp Retrofit		1

## 5.7 Cam Index Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	A09821	<b>ARM ASSEMBLY, CAM INDEX</b>		1
	010744	<b>ARM ASSEMBLY, CBN CAM INDEX</b>		1
1	S09733	Knob, Index Arm Adjustment		2
2	010702	Adjustment Weldment, Pawl	Available in assemblies only.	1
3	P09816	Spring, Index Arm LC-045G-7SS		1
4	004653	Bushing, 3/4" Long Flanged		1
5	F05012-6	Pin, 1/8" x 3/4" Roll		1
6	W09763	Arm Weldment, Cam Index		1
7	010742	Arm Weldment, Cam Index		1
8	F05011-36	Washer, 3/8" Lock		1

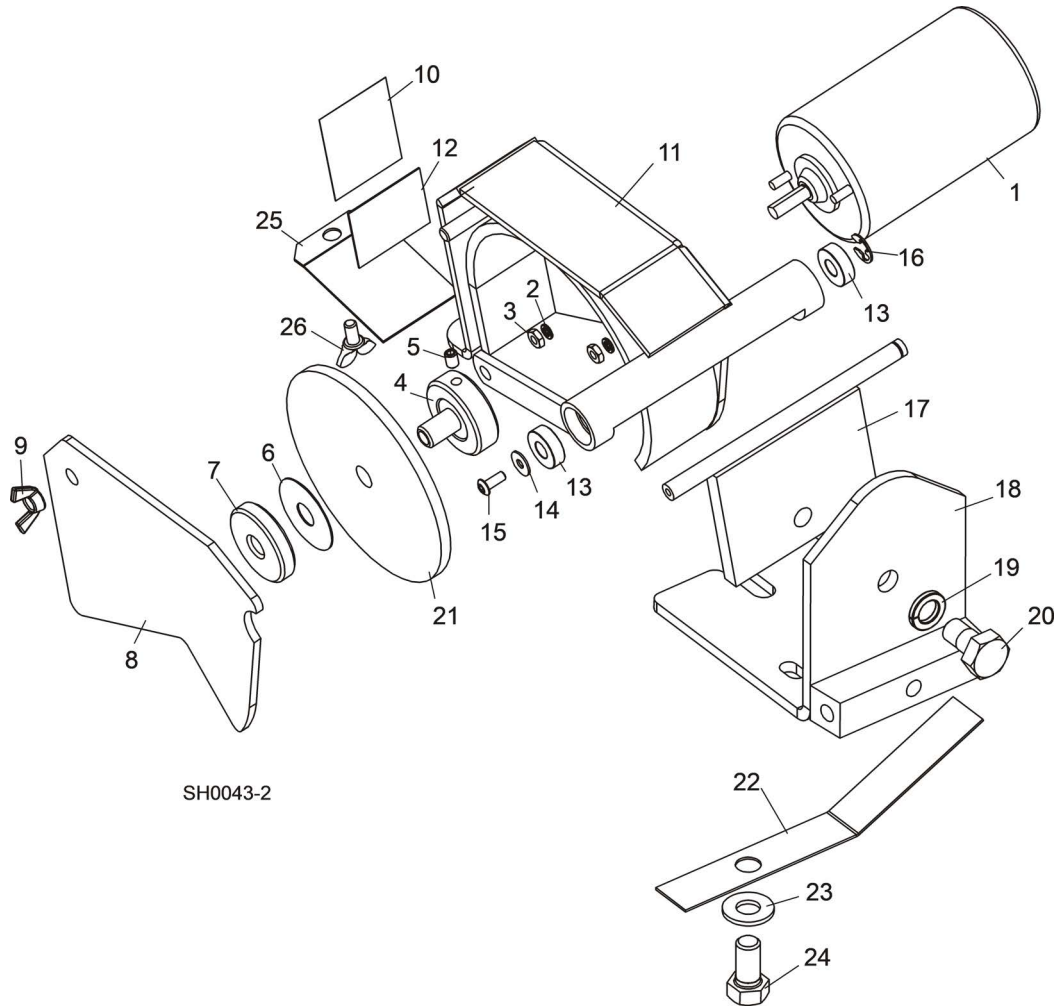
# 5 Replacement Parts

## Cam Index Assembly

REF	PART #	DESCRIPTION	COMMENTS	QTY.
9	S10663	<b>ROD, CAM BRAKE</b>		1
10	P06460	<b>SPRING, CAM BRAKE</b>		1
	A10690	<b>MOUNT ASSEMBLY, CAM MOTOR</b>		1
11	W10685	Mount Weldment, Cam Motor	Available in assemblies only.	1
12	S09734	Shaft, Cam Drive		1
13	F04254-4	Ring, 1.575" I.D. Retaining		1
14	P06030-2	Bearing, 6203-2NSL 17mm		3
15	F05010-11	Nut, 5/8-18 Jam		1
	A10365	<b>MOTOR ASSEMBLY, AGA CAM DRIVE</b>		1
	A10520	Motor Assembly, AGA Cam Drive	Available in assemblies only.	1
16	P09698-1	Motor, 53:1 Gear	Available in assemblies only.	1
	P12756	Housing, Klauber Motor End		1
	P12569	Gear Kit, Klauber Motor Replacement		1
	P12800	Brush Kit, Gear Motor Replacement		1
	009695	Shaft Kit, Klauber Gear Motor Replacement		1
17	S10528	Pin, 1/8" x 9/16" Dowel		1
18	F05004-56	Screw, #10-32 x 1/2" Button Head		4
19	F05004-3	<b>SCREW, #10-24 X 3/8" PHILLIPS HEAD</b>		8
20	P09800	<b>HINGE, 2" CAM COVER</b>		1
21	F05010-14	<b>NUT, #10-24 SELF-LOCKING</b>		4
22	S09811	<b>COVER, AGA CAM</b>		1
23	S10692	<b>DECAL, MOVING CAM WARNING</b>		1
24	F05006-5	<b>BOLT, 5/16-18 X 3/4" HEX HEAD GRADE 2</b>		1
25	F05010-17	<b>NUT, 5/16-18 HEX</b>		1
26	S09838	<b>BRACKET, MAGNETIC SHUTOFF SWITCH MOUNT</b>		1
27	A10514	<b>SWITCH, MAGNETIC SHUTOFF</b>		1
28	S10519-1	<b>MAGNET, ORANGE SHUTOFF</b>		3
	060046	<b>CAM ASSEMBLY, CBN PROFILE 7/8" - 1 1/4" BLADE (STANDARD)</b>	Replaces 010745 supplied prior to Rev. B.01 to allow grinding of blades with 1 1/8" tooth spacing. Use kit 060051 to retrofit previous revisions. Kit includes cam assembly 060046, oil trough extension plate and longer trough mounting bolts (See Section 5.5). 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.	1
	010745	<b>CAM ASSEMBLY, PRO GRINDER 5/8" - 7/8" BLADE (OPTIONAL)</b>		1
	060092	<b>CAM ASSEMBLY, PRO GRINDER 1/2" - 3/4" BLADE (OPTIONAL)</b>		1
29	057401	Cam, Profile Index 7/8" - 1 1/4" Tooth Spacing	Available in assemblies only.	1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
	010741	Cam, Profile Index 5/8" - 7/8" Tooth Spacing	Available in assemblies only.	1
	060091	Cam, Profile Index 1/2" - 3/4" Tooth Spacing	Available in assemblies only.	1
30	F05007-95	Screw, 3/8-24 x 3/4" Socket Head Set		2
31	S10657	Stud, Index Arm Mount	Available in assemblies only.	1
32	P05251-1	<b>WASHER, .5" X .75" X 1/16" NYLON</b>		1
33	P07032	<b>WRENCH, COLLET</b>		1
	010635	<b>REPLACEMENT KIT, 10/30 CAM</b>		1
	A10626	<b>REPLACEMENT KIT, 9/29 CAM</b>		1
	050401	<b>REPLACEMENT KIT, 13/29 CAM</b>		1
	050842	<b>REPLACEMENT KIT, 4/32 CAM</b>		1
	050843	<b>REPLACEMENT KIT, 12/28 CAM</b>		1
	010634	Cam Assembly, AGA Index 10/30 (Factory Installed)	Available in assemblies only.	1
	W10656	Cam Assembly, AGA Index 9/29 (Provided Uninstalled)	Available in assemblies only.	1
	050400	Cam Assembly, AGA Index 13/29 (Provided Uninstalled)	Available in assemblies only.	1
	050840	Cam Assembly, AGA Index 4/32 (Provided Uninstalled)	Available in assemblies only.	1
	050841	Cam Assembly, AGA Index 12/28 (Available Separately)	Available in assemblies only.	1
34	010633	Cam, AGA Index 10/30	Available in assemblies only.	1
	S09771	Cam, AGA Index 9/29	Available in assemblies only.	1
	050122	Cam, AGA Index 13/29	Available in assemblies only.	1
	050825	Cam, AGA Index 4/32	Available in assemblies only.	1
	050827	Cam, AGA Index 12/28	Available in assemblies only.	1
35	F05007-95	Screw, 3/8-24 x 3/4" Socket Head Set		2
36	S10657	Stud, Index Arm Mount	Available in assemblies only.	1
37	P05251-1	Washer, .5" x .75" x 1/16" Nylon		1
38	P07032	Wrench, Collet		1
	050372	Template Assembly, Mult-Angle with decal		1
	050845	Template, 4/32 AGA		1
	LTAGA-214	Instruction Sheet, Cam Replacement	Available in assemblies only.	1
39	F05011-16	<b>WASHER, 5/16" STANDARD FLAT</b>		1
40	F05006-15	<b>BOLT, 5/16-18 X 1/2" HEX HEAD GRADE 5</b>		1
41	F05005-7	<b>BOLT, 3/8-16 X 1" HEX HEAD</b>		2

### 5.8 Grinder Assembly

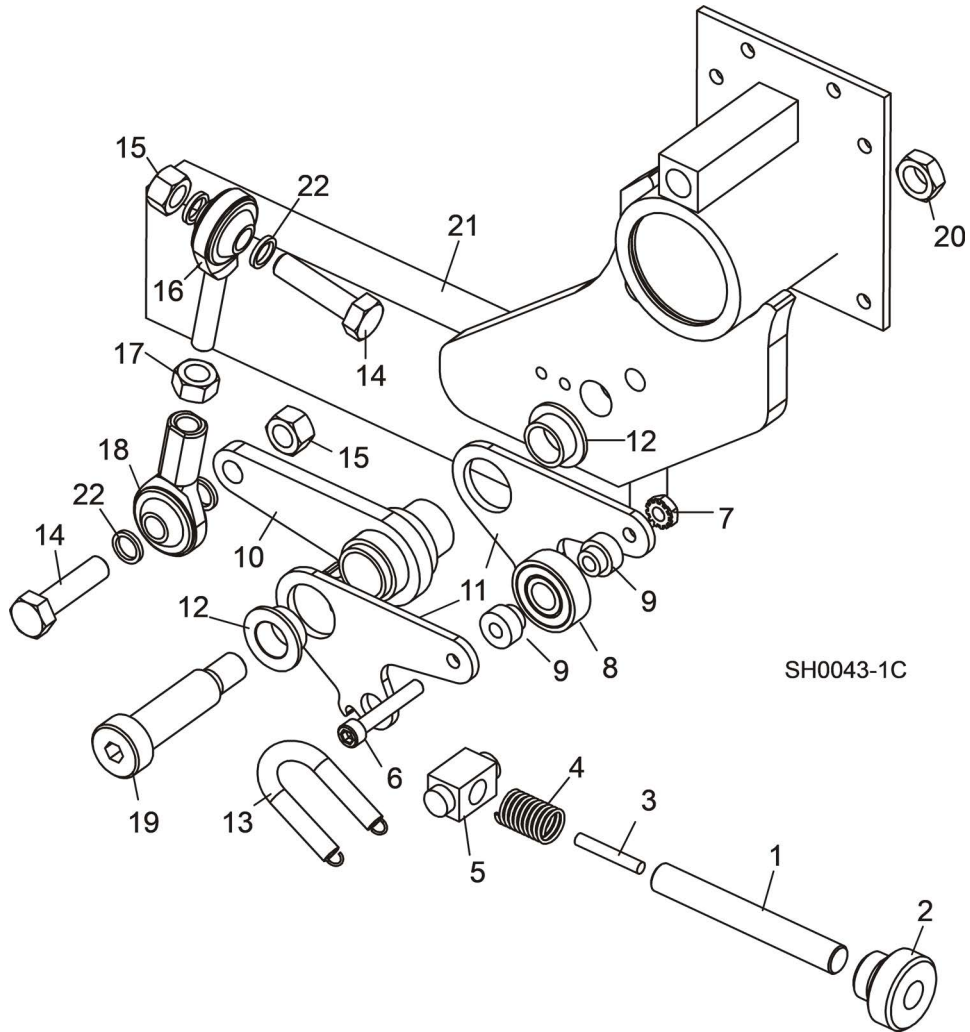


REF	PART #	DESCRIPTION	COMMENTS	QTY.
	A10662	<b>HEAD/BASE ASSEMBLY, AGA GRINDER</b>		1
	A10665	Head Assembly, AGA Grinder <i>(Includes Items 1 - 12 only)</i>		1
<b>1</b>	A04665	Motor Assembly, AGA Grinder		1
	A10701	Motor Assembly, 12 Volt DC w/Harness	Available in assemblies only.	1
	016706	Motor, 12 VDC	Available in assemblies only.	1
	034002	Brush Kit, Leeson Motor External		
	A07969	Brush Kit, Owosso Motor Internal		1
	E10551	Connector, 2 Pin		1



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	E10552	Contact, Wire Pin		2
	R01897	Tube, 3/8" Neoprene		2 ft.
	F05708-1	Terminal, 14 Ga. 90° Flag		1
	F05609-2	Nut, 10 Ga. Crimp Wire		1
	R01890	Tube, 1/4" x 3/8" Plastic		6.5 in
	A04665-235	Instruction Sheet, Motor Replacement		1
<b>2</b>	F05011-20	Washer, #10 Split Lock		2
<b>3</b>	F05010-27	Nut, #10-32 Hex		2
	A04799	Arbor Kit, Grinding Wheel		1
<b>4</b>	S04553	Arbor, Male Wheel	Available in assemblies only.	1
<b>5</b>	F05005-24	Screw, 1/4-28 x 3/8" Cup Point Set		1
<b>6</b>	P04527	Washer, Nylon Grinding Wheel		1
<b>7</b>	S04554	Arbor, Female Wheel	Available in assemblies only.	1
<b>8</b>	S10668	Cover, Grinder head		1
<b>9</b>	F05010-23	Nut, 5/16-18 Wing		1
<b>10</b>	S10691	Decal, Eye Protection Warning		1
<b>11</b>	W10667	Head Weldment, AGA Grinder		1
<b>12</b>	010697	Decal, Blade Reorder		1
<b>13</b>	P10688	Bearing, R6-2NSL SRI-2 ABEC-1		2
<b>14</b>	F05011-18	Washer, #10 SAE Flat		1
<b>15</b>	F05004-29	Screw, #10-32 x 1/2" Button Head		1
<b>16</b>	P10689	Clip, 3/8" E		1
	A10666	Base Assembly, AGA Grinder		1
<b>17</b>	W10680	Plate Weldment, Vertical Pivot		1
<b>18</b>	W10677	Base Weldment, AGA Grinder		1
<b>19</b>	F05011-9	Washer, 1/2" Split Lock		1
<b>20</b>	F05008-50	Bolt, 1/2-13 x 1" Hex Head Grade 2		1
	A04543	<b>KNOB, GRINDER HEAD DEPTH</b>	Removed 1/96. Not used for Wood-Mizer blades.	1
	P04575	Knob, Knurled Hand		1
	S04544	Stud, 5/16-24 x 2 3/4" Threaded	Available in assemblies only.	1
	F05010-30	<b>NUT, 5/16-24 WING</b>		1
<b>21</b>	P04567-9	<b>WHEEL, 1/4" GRINDING</b>		1
<b>22</b>	S10700	<b>WIPER, AGA BLADE</b>		1
<b>23</b>	F05011-2	<b>WASHER, 1/2" SAE FLAT</b>		1
<b>24</b>	F05008-42	<b>BOLT, 1/2-20 X 1" HEX HEAD GRADE 5</b>		1
<b>25</b>	D04672	<b>GUARD, AGA MIST</b>		1
<b>26</b>	F05005-16	<b>SCREW, 1/4-20 X 1/2" THUMB</b>		1
	010757	<b>PULLER, WHEEL ARBOR</b>		1
	F05005-92	<b>BOLT, 1/4-20 X 2 3/4" HEX HEAD FULL THREAD</b>		1
	010706	<b>TOOL, AGA ALIGNMENT</b>		1

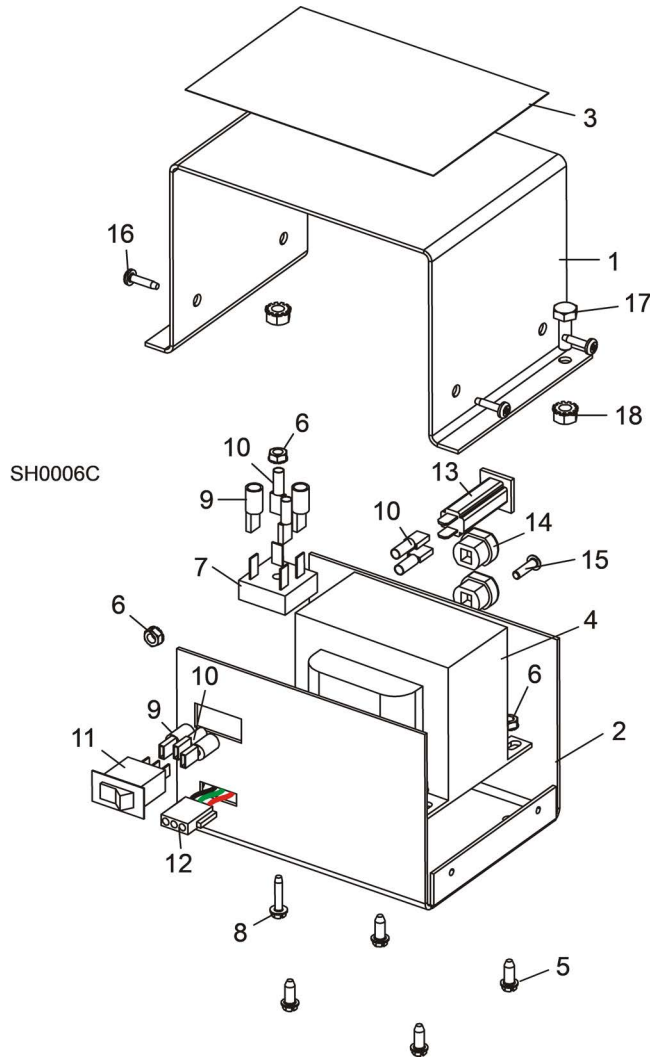
### 5.9 Lift Assembly



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

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

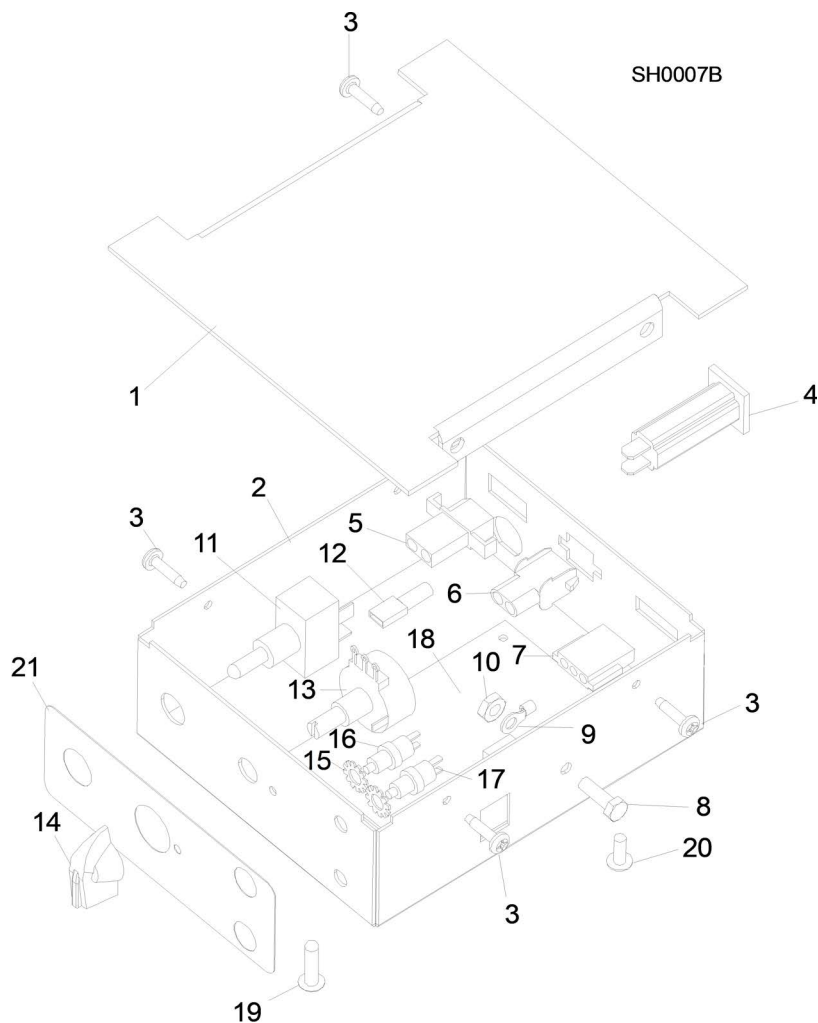
### 5.10 Transformer Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	A10549-110	<b>TRANSFORMER, 110V TO 12V AGA</b>		1
	A10531-220	<b>TRANSFORMER, 220V TO 12V AGA</b>		1
1	S10487	Cover, AGA Transformer		1
2	S10488	Base, AGA Transformer		1
3	P10526-110	Decal, GFI 110V Transformer Danger		1
	P10526-220	Decal, GFI 220V Transformer Danger		1
4	073573	Transformer, 250VA 120/240V-12/24V	Available in assemblies only.	1
5	F05015-18	Screw, #8-32 x 1/2" Slotted Hex Head		4
6	F05010-41	Nut, #8-32 Self-Locking		6
7	E10456	Rectifier, 50PIV Bridge		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
8	F05015-23	Screw, #8-32 x 3/4" Slotted Hex Washer Head		1
9	F05708-9	Terminal, 1/4" Quick 10-12 Ga. Female	Available in assemblies only.	4
10	F05708-10R	Terminal, 1/4" Quick 14-16 Ga. Female	Available in assemblies only.	5
	A10703	Switch, AGA On/Off		1
11	E10473	Switch, Lighted Rocker	Available in assemblies only.	1
	A10703-495	Instruction Sheet, Switch Replacement		1
12	053328	Harness Assembly, LTAGA Power Supply DC Out		1
13	E10466	Breaker, 3 Amp Circuit (110V Transformer)		1
	E10560	Breaker, 2 Amp Circuit (220V Transformer)		1
14	P06254	Grommet, #1207 Heyco		2
15	F05004-98	Screw, #8-32 x 5/8" Socket Button Head		1
16	F05015-3	Screw, #8 x 5/8 Phillips Head Pan A		4
17	F05005-1	<b>BOLT, 1/4-20 X 3/4" HEX HEAD FULL THREAD</b>		2
18	F05010-9	<b>NUT, 1/4-20 SELF-LOCKING</b>		2

### 5.11 Control Assembly



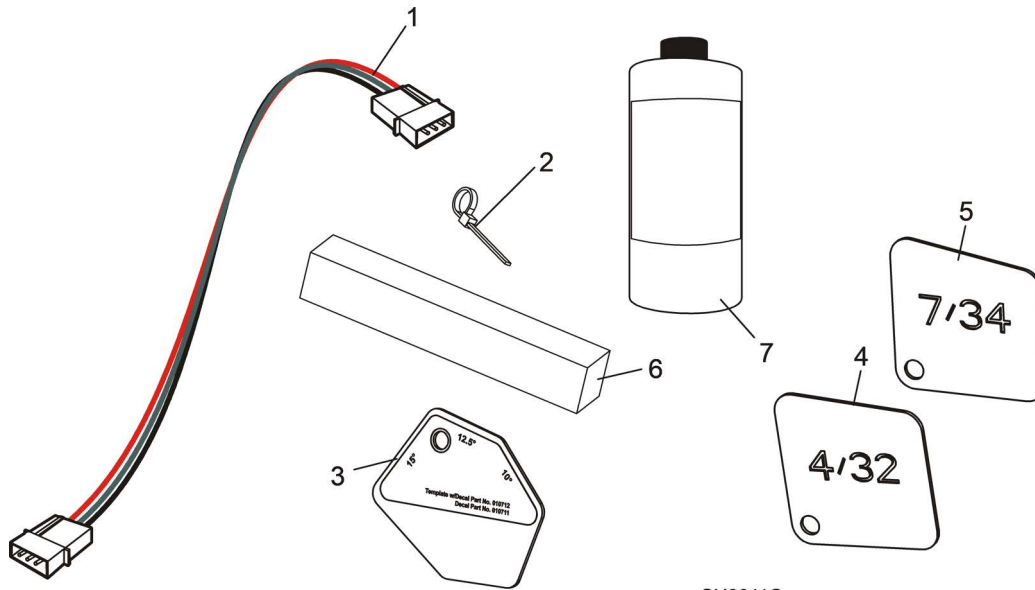
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	A10600	<b>CONTROL ASSEMBLY, AGA</b>		1
1	S10522	Cover, AGA Control Box		1
2	S10694	Base, AGA Control		1
3	F05015-3	Screw, #8 x 5/8" Phillips Pan Head A		4
4	E10698	Breaker, 15 Amp Circuit		1
5	E10483	Connector, 2-Pin Tapered	Available in assemblies only.	1
6	E10480	Connector, 2-Pin Rectangle	Available in assemblies only.	1
7	E10474	Connector, 3-Pin Rectangle	Available in assemblies only.	1
8	F05004-18	Bolt, #10-24 x 5/8" Hex Head		1
9	F05092-9R	Terminal, #10 14-16 Ga. Ring	Available in assemblies only.	1
10	F05010-14	Nut, #10-24 Self-Locking		1

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

# 5 Replacement Parts

## Miscellaneous Parts

### 5.12 Miscellaneous Parts



SH0011C

REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	A10532	HARNESS, AGA TRANSFORMER/CONTROL		1
2	F05089-1	STRAP, 1/4" X 6" TIE		6
3	050372	TEMPLATE ASSEMBLY, MULT-ANGLE WITH DECAL		1
4	050845	TEMPLATE, 4/32 AGA		1
5	061786	TEMPLATE, 7/34 AGA		1
6	P04570	STONE, GRINDING WHEEL DRESSING		1
7	A04673-1	COOLANT, 1 GAL. BOTTLE GRINDING CONCENTRATE		1
8	060246	TEMPLATE, 15° HEAD ANGLE		1
9	010740	OIL, 5 GALLONS #165-CE GRINDING		1
	057791	DYE, 4OZ RED LAYOUT		1
	010706	TOOL KIT, ALIGNMENT		1
10	010722	Tool, Alignment	Available in assemblies only.	1



## SECTION 6 MAINTENANCE & TROUBLESHOOTING

### 6.1 Wiring Diagram

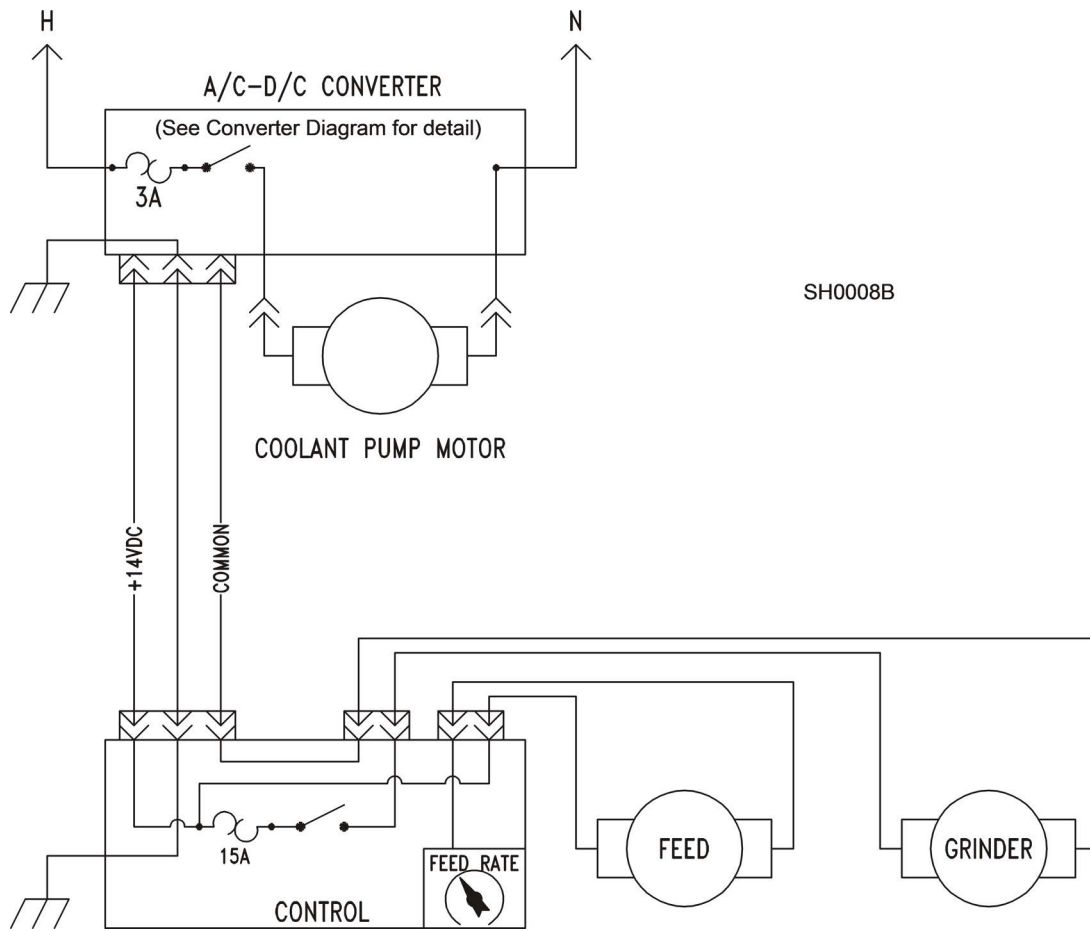
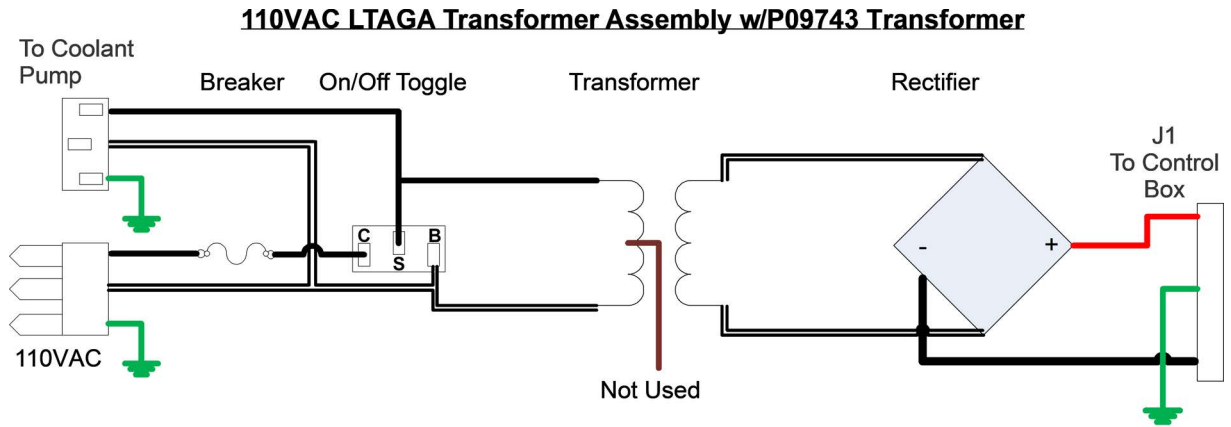


FIG. 6-1

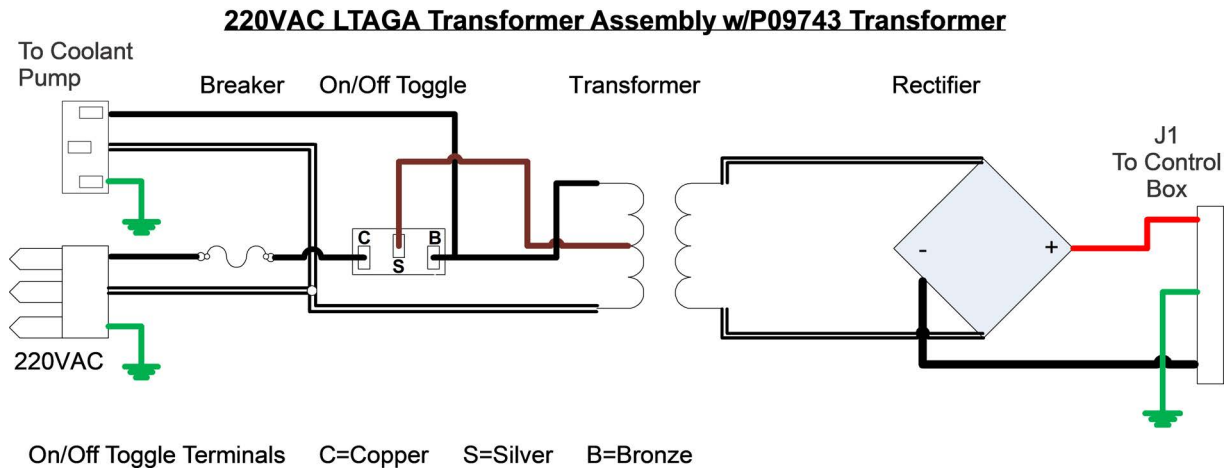
# 6 Maintenance & Troubleshooting

## Converter Diagram (w/P09743 Transformer)

### 6.2 Converter Diagram (w/P09743 Transformer)

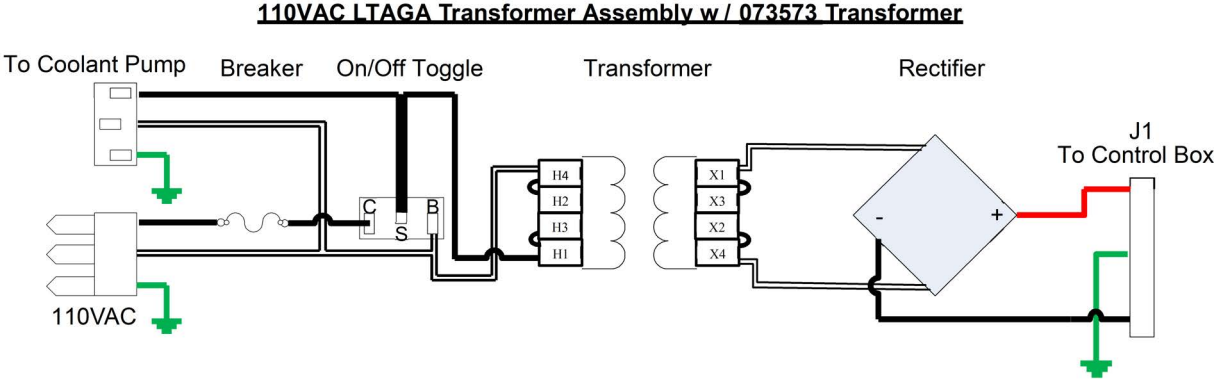


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**FIG. 6-2**

6.3 Converter Diagram (w/073573 Transformer)



SH0056

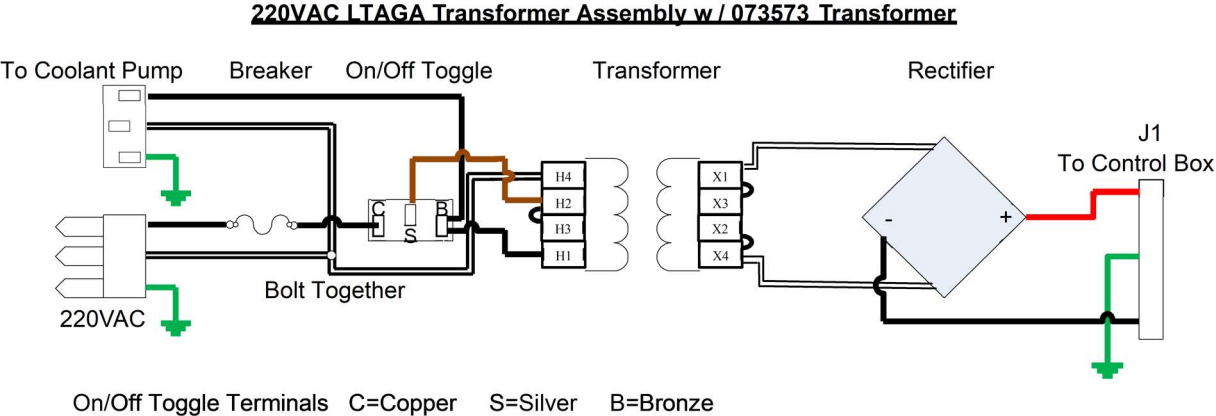


FIG. 6-3

## 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.
- Use the LTAGA alignment tool to achieve accurate alignment between the blade clamp and the grinding wheel. [See Section 3.6 Sharpener Alignment.](#)
- Change the water and coolant and clean out the water tray as needed.
- Use a light penetrating oil to keep moving parts lubricated. These include: blade clamp, face grind adjustment knob and back grind adjustment knob.

## 6.5 Grinding Wheel Maintenance

An important part of blade maintenance is grinding wheel dressing. When dressing the grinding wheel, dress a small radius on the left corner. Then dress the back 2/3 of the wheel at the same angle as the back of the teeth. Blend the back and bottom angles together. If more gullet grind is desired, dress back angle further across wheel. If shorter tooth height is desired, dress bottom angle larger and reblend.

**NOTE:** If you dress the grinding wheel too heavily, the circuit breaker on the back of the control box may kick out. If this happens, wait 15 seconds. Then push in and release circuit breaker.

Sharpening a blade with a worn wheel will do more damage to the blade than good. The shape at which you have dressed the wheel must be maintained. The small radius on the left corner of the wheel is especially important to maintain. This is the section that does the most grinding. The radius will increase during sharpening. As it becomes larger, it starts to grind into the tooth face and leaves little or no hook angle in the tooth.

To maintain grinding wheel shape, redress the wheel when it becomes worn. Also redress the wheel when it becomes "loaded up" with metal and no longer sharpens teeth properly. To redress, dress the bottom angle of the wheel. Blend this area with the small left corner radius. Redress the back angle if necessary.

Abnormal wear on the grinding wheel may be caused by:

- Improper dressing
- Grinding too fast
- Grinding too heavy
- Grinding too many blades without redressing

**IMPORTANT:** When sharpening a blade, particles can become lodged in the grinding wheel that can burn or groove the gullet of the blade. Burns or grooves in the gullet create microscopic stress fractures which will eventually cause the blade to break prematurely. Lightly dressing the wheel after sharpening each blade will remove lodged particles and prevent the wheel from burning or grooving the blade.

Replace the grinding wheel when it is worn to less than 4" in diameter.

## 6.6 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 waterfalls directly on the tip of blade tooth which is being ground.

The average time it takes to sharpen a blade is 5 - 15 minutes. (Feed rate will vary on different sharpeners.) If the tooth tip turns blue during sharpening or if you have abnormal or excessive wheel wear, you are grinding too fast.

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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