

Wood-Mizer® Grinder

Safety, Operation, Maintenance & Parts Manual

Flash Grinder

rev. A.00



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

July 2011

Form #1755

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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, 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.



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



WARNING! Always turn off and disconnect power before performing any service to the machine.



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 grinder. Failure to do so may result in serious injury.



CAUTION! Always turn the grinder off after you have finished working for the day.

1 General Information

Component ID

1.2 Component ID

See Figure 1-1. Major components of the Flash Grinder are shown below.

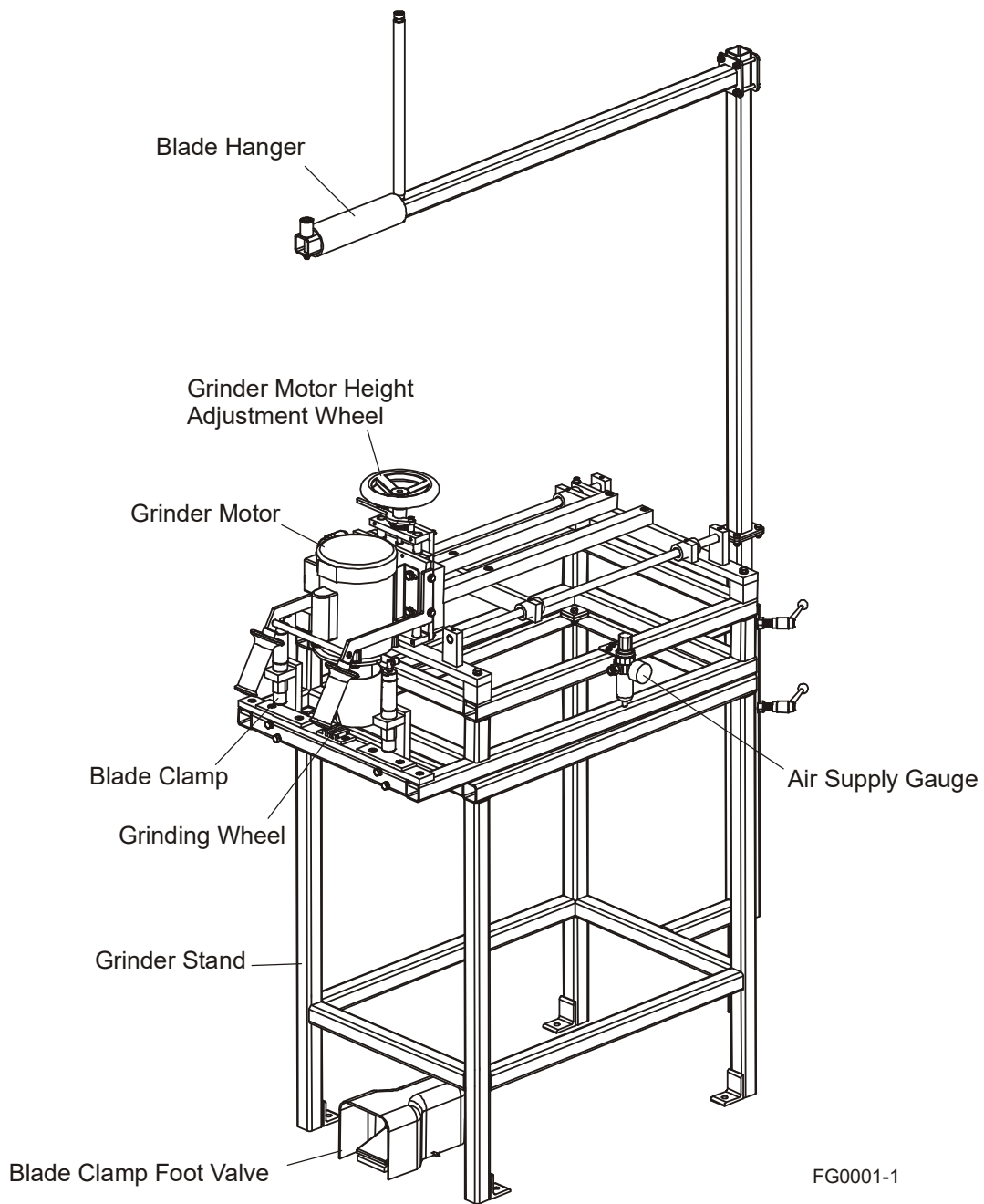
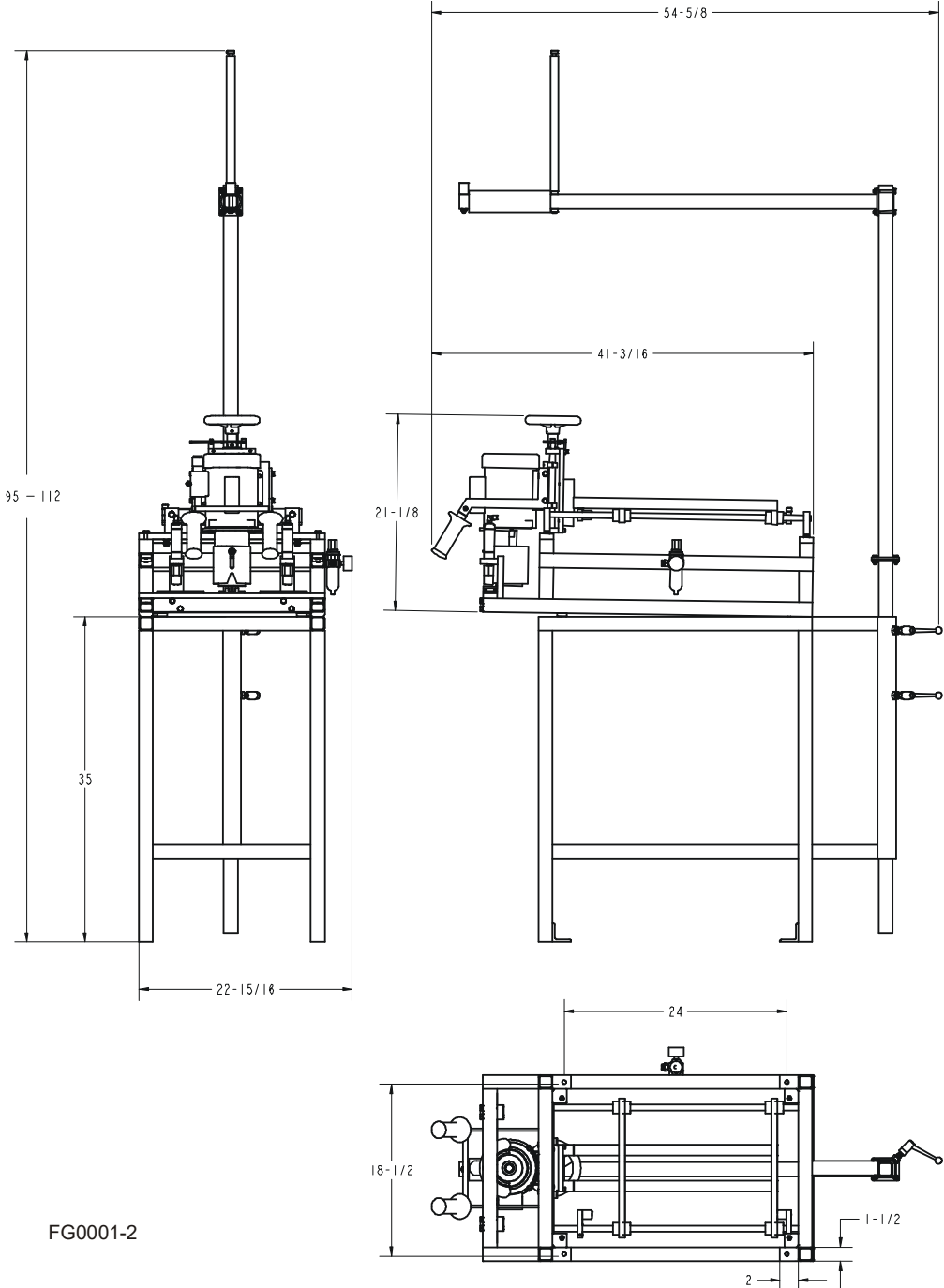


FIG. 1-1

1.3 Dimensions

See Figure 1-2. Dimensions of the Flash Grinder are shown below.



FG0001-2

FIG. 1-2

SECTION 2 SETUP & OPERATION

2.1 Assembly

Place the grinder on a table or workbench sturdy enough to support the weight of the machine. Use the provided grinder stand if equipped. Be sure there is enough room on either side of the grinder to allow for the blade to be handled.

Grinder Stand

See Figure 2-1. If the grinder is equipped with the grinder stand, install the grinder top assembly to the stand and secure with the provided fasteners.

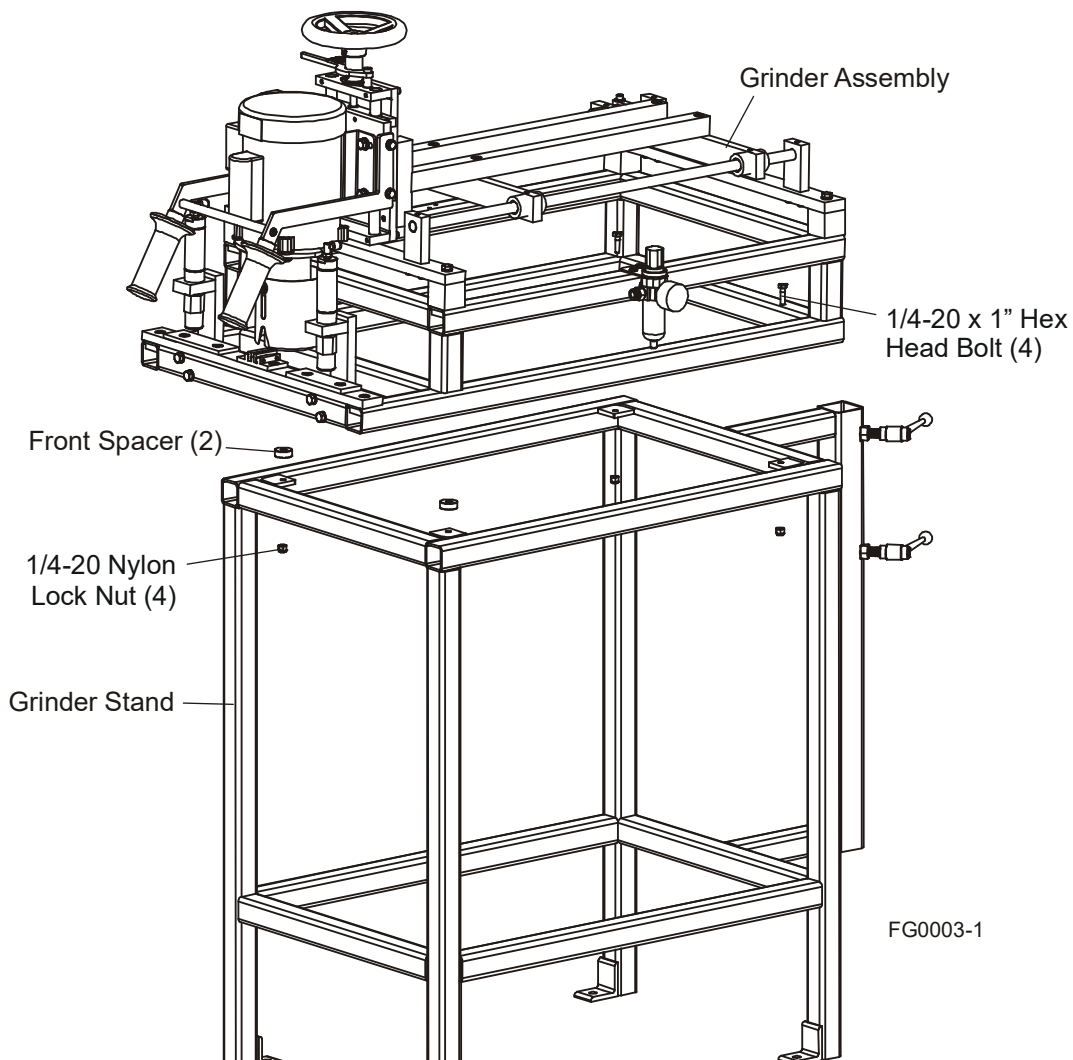


FIG. 2-1

Blade Hanger

See **Figure 2-2**. Install the blade hanger at the rear of the grinder stand. Adjust the hanger height as needed and use the two clamp handles to secure the hanger in place.

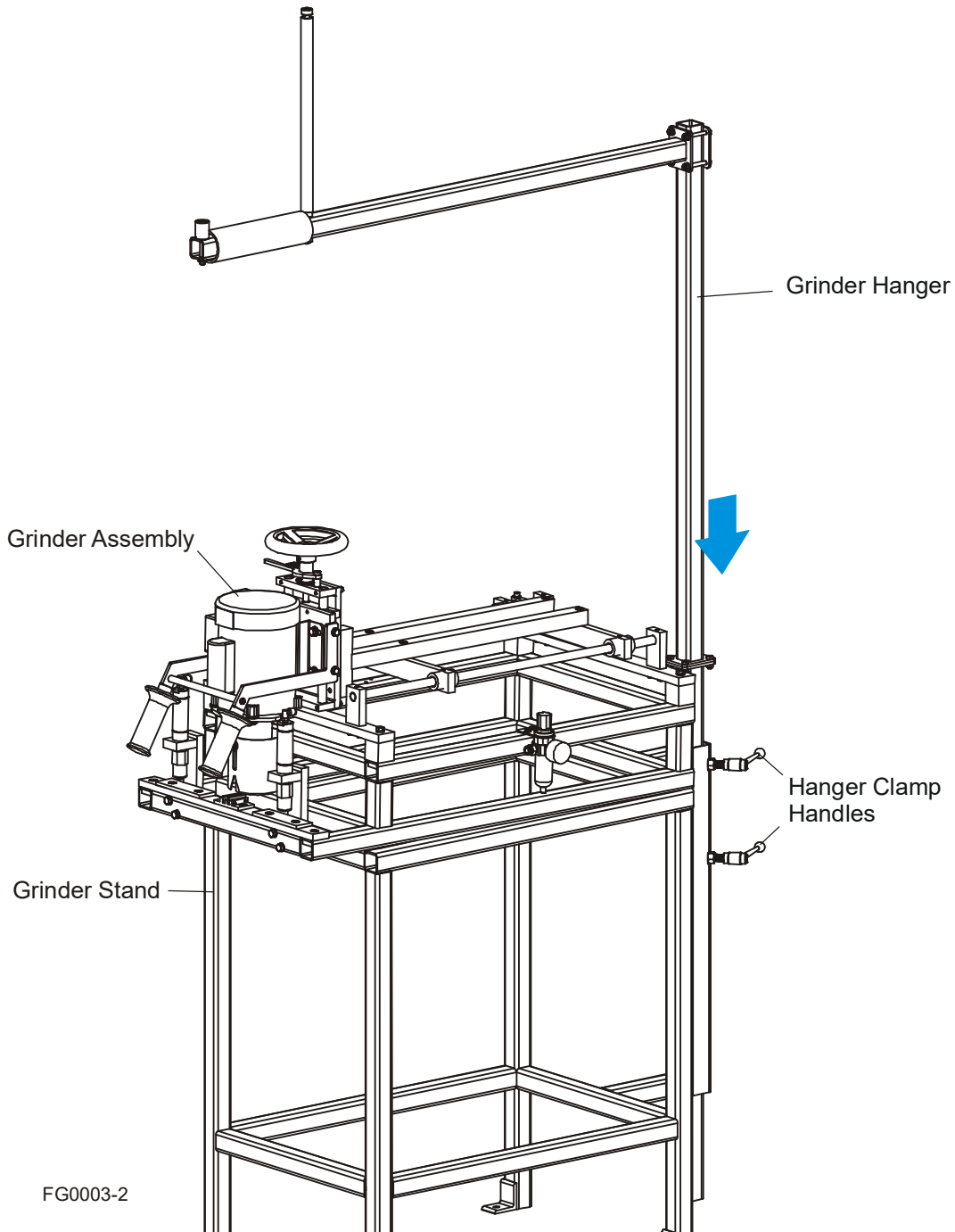


FIG. 2-2

Head Slide Stop Block Adjustment

See Figure 2-3. Adjust the front and rear clamp stop blocks located on the left slide rod to make sure the grinder head is moved only a proper distance when used. To adjust the clamp stop blocks, loosen the socket head bolts securing the clamp stop blocks to the slide rod. Move the clamp stop blocks along the slide rod as shown below.

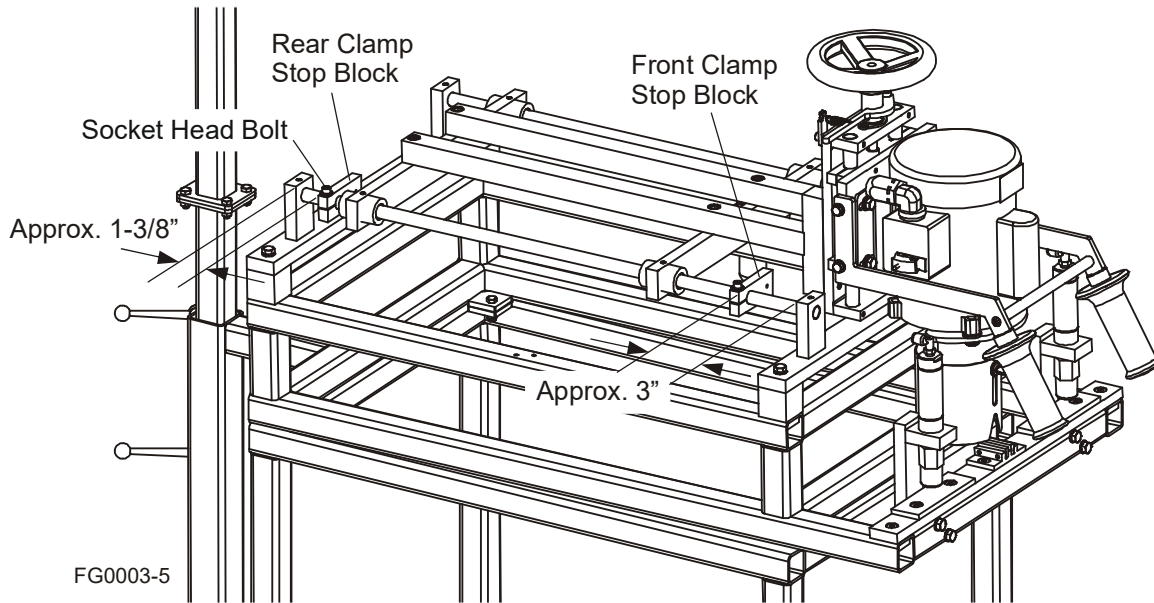


FIG. 2-3

Tighten the socket head bolts on the front and rear clamp stop blocks to secure the blocks in place.

Grinding Wheel Installation

See Figure 2-4. Remove the grinding wheel guard thumb screw and guard to access the grinding wheel shaft.

Unscrew the hex head bolt from the grinding wheel shaft and remove the bolt and spacer. Remove the grinding wheel from the grinder.

Install the appropriate Wood-Mizer grinding wheel. Reinstall the spacer and hex head bolt and tighten to secure the grinding wheel. Reinstall the guard and thumb screw to the grinder.

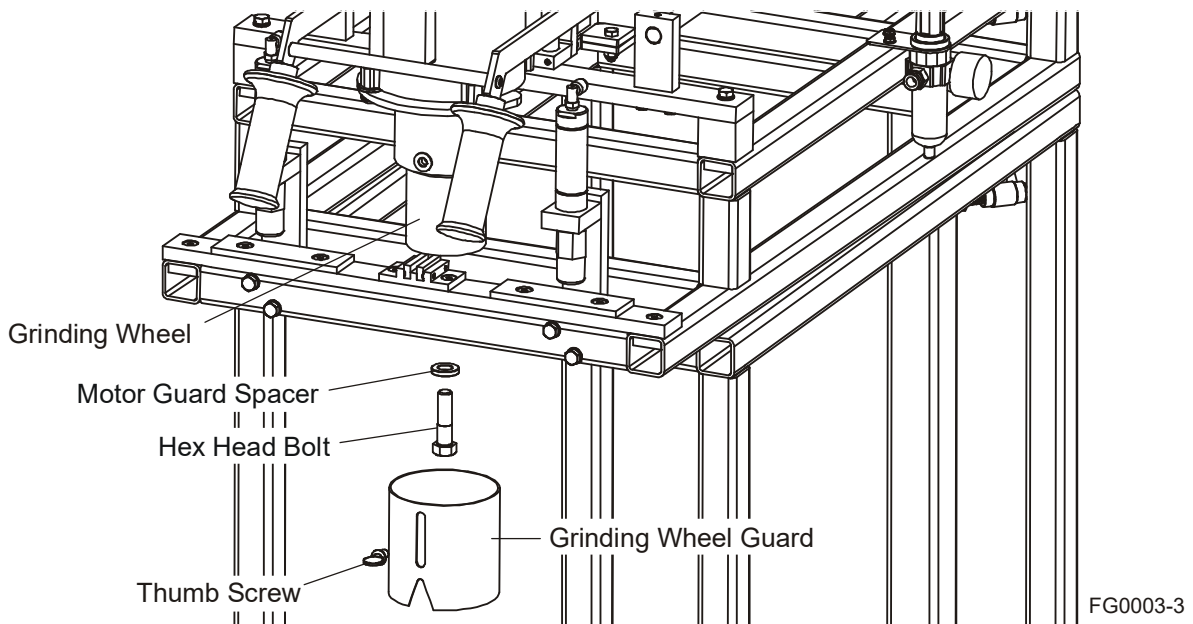


FIG. 2-4



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

2

Setup & Operation

Assembly

Electrical Connection

Plug the power cord from the control box into a grounded 110-120 volt receptacle.



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.

2.2 Operation



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.

See Figure 2-5. Release the brake arm and use the height adjustment wheel to adjust the height of the grinding wheel, if necessary. Turn the adjustment wheel clockwise to move the grinding wheel up, turn the the adjustment wheel counterclockwise to move the grinding wheel down. Turn the ON/OFF switch to the ON position to start the grinder motor. Push the grinder head away towards the grinder frame, if necessary, and place the blade on the clamp plates. Position the blade so the blade weld is located on the anvil clamp blocks.

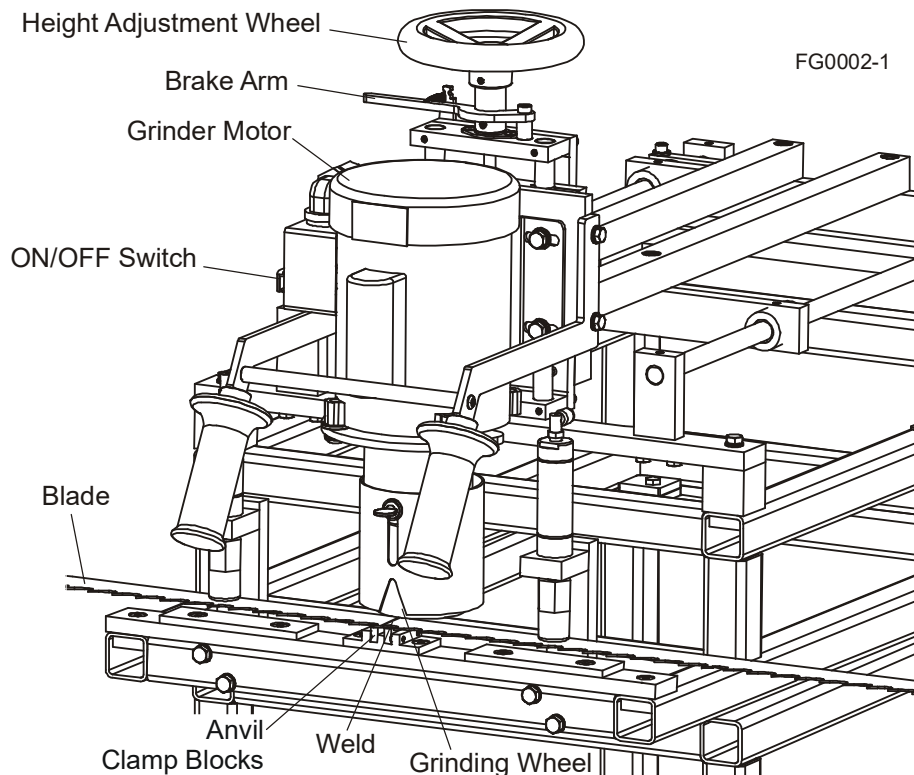


FIG. 2-5

Press the foot valve to lower the air clamp cylinders and clamp the blade to the clamp plates. Grab the grinder head handles and pull the grinder head towards the operator to grind the weld. Grind the weld with multiple passes to receive best results and to prevent burning. Push the grinder head away towards the frame and release the foot valve.

Flip the blade to grind the other side of the weld. Use the blade hanger to let the blade rest safely.

See Figure 2-6.

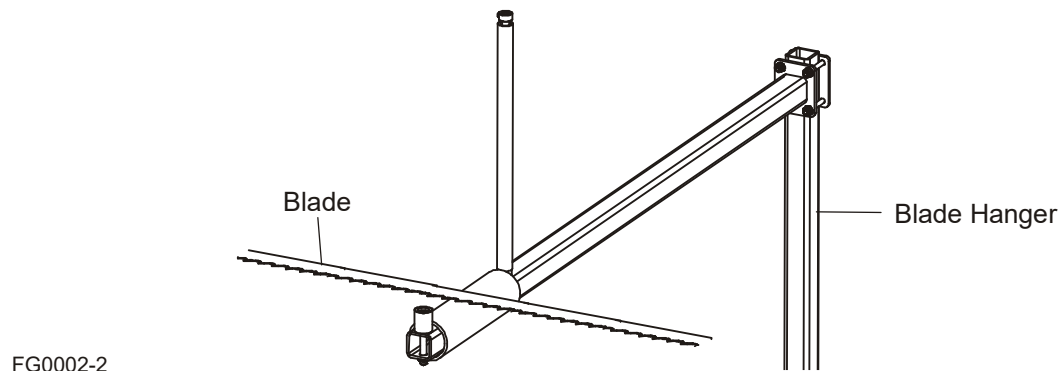


FIG. 2-6

Make sure the weld is located on the anvil clamp blocks and press the foot valve to lower the air clamp cylinders and clamp the blade to the clamp plates. Grab the grinder head handles and pull the grinder head towards the operator to grind the weld. Grind the weld with multiple passes to receive best results and to prevent burning. Push the grinder head away towards the frame and release the foot valve. Turn the ON/OFF switch to the OFF position to stop the grind motor if you have finished grinding.

SECTION 3 MAINTENANCE & ALIGNMENT

3.1 Maintenance



WARNING! Always turn off and disconnect power before performing any service to the machine.

Grinding Wheel Replacement

Check the grinding wheel often and change as necessary. Wheels approved for use with the grinder are available from Wood-Mizer (part # 066125).

The grinding wheel should be in good condition. Replace if worn.

[See Page 2-4](#) for grinding wheel installation instructions.

Clean Grinder

Clean metal particles from the grinder and area surrounding after each day of operation. Pay particularly close attention to the moving parts of the grinder to ensure metal particles do not accumulate and interfere with grinder operation.

Blade Clamp Wear Plates and Bumpers

Inspect the clamp blocks and bumpers periodically for damage or excessive wear and replace as necessary. The clamp blocks and bumpers should keep the blade arched and in place when the foot valve is pressed.

3.3 Troubleshooting

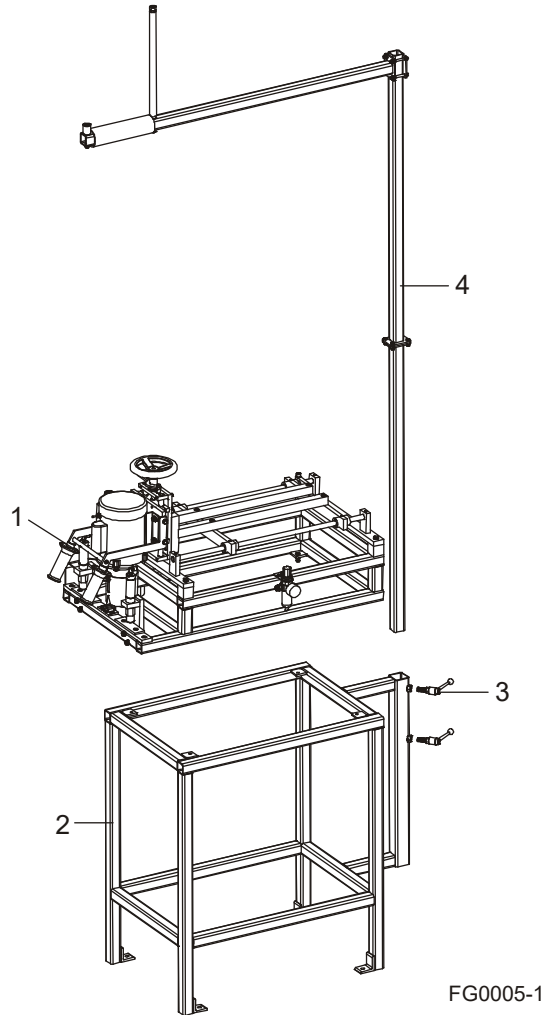


WARNING! Always turn off and disconnect power before performing any service to the machine.

PROBLEM	POSSIBLE CAUSE	SOLUTION
My grind motor does not turn on.	No power.	Check power supply and power cable.
	Improper wiring.	Check wiring per schematic. Ensure proper configuration at grind motor.
	Bad grinder motor.	Replace motor.
My grind motor is turning the wrong direction.	Improper wiring.	Interchange internal leads to grind motor. See motor nameplate for detailed information.
My start /stop toggle switch does not work.	No power.	Check power supply and power cable.
	Improper wiring.	Check wiring per schematic. Ensure proper configuration at grind motor.
	Bad switch contact.	Replace the start/stop toggle switch.

SECTION 4 REPLACEMENT PARTS

4.1 Grinder Complete

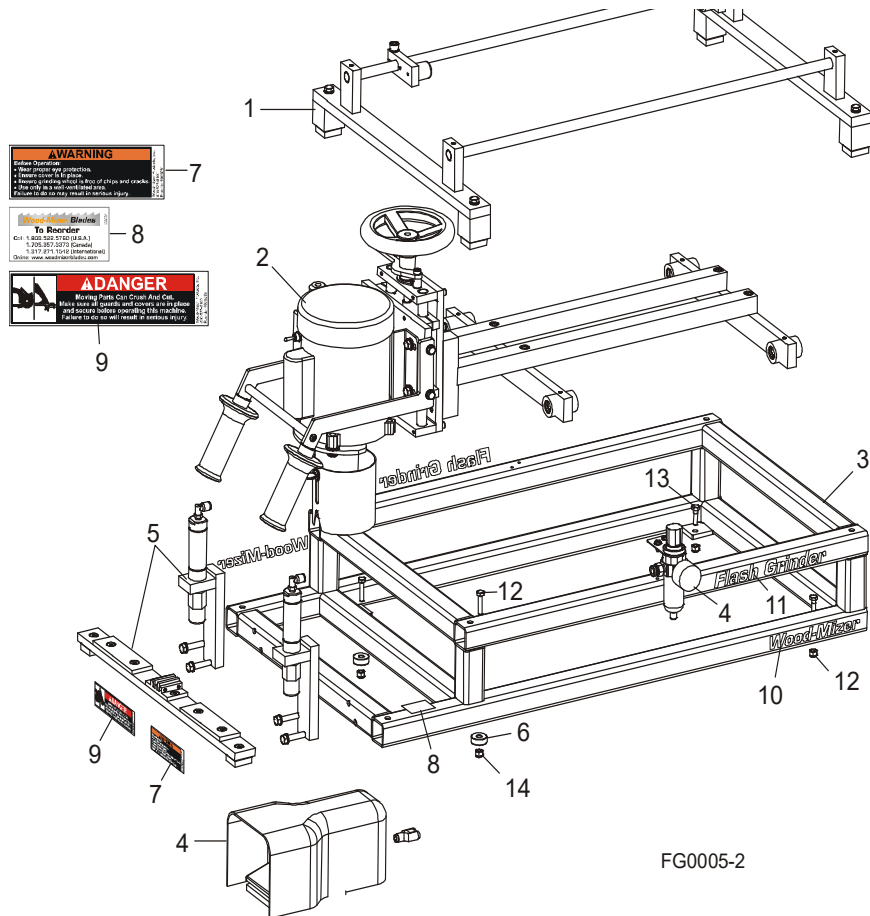


REF	PART #	DESCRIPTION	COMMENTS	QTY.
	066160	BAND GRINDER ASSEMBLY W/STAND		1
1		Grinder Parts (See Section 4.2)		
2	066135	Stand Weldment, Band Grinder		1
3	060451	Handle, 1/2-13 x 1.18" Adjustment		2
4		Blade Hanger Parts (See Section 4.3)		

4

Replacement Parts Grinder

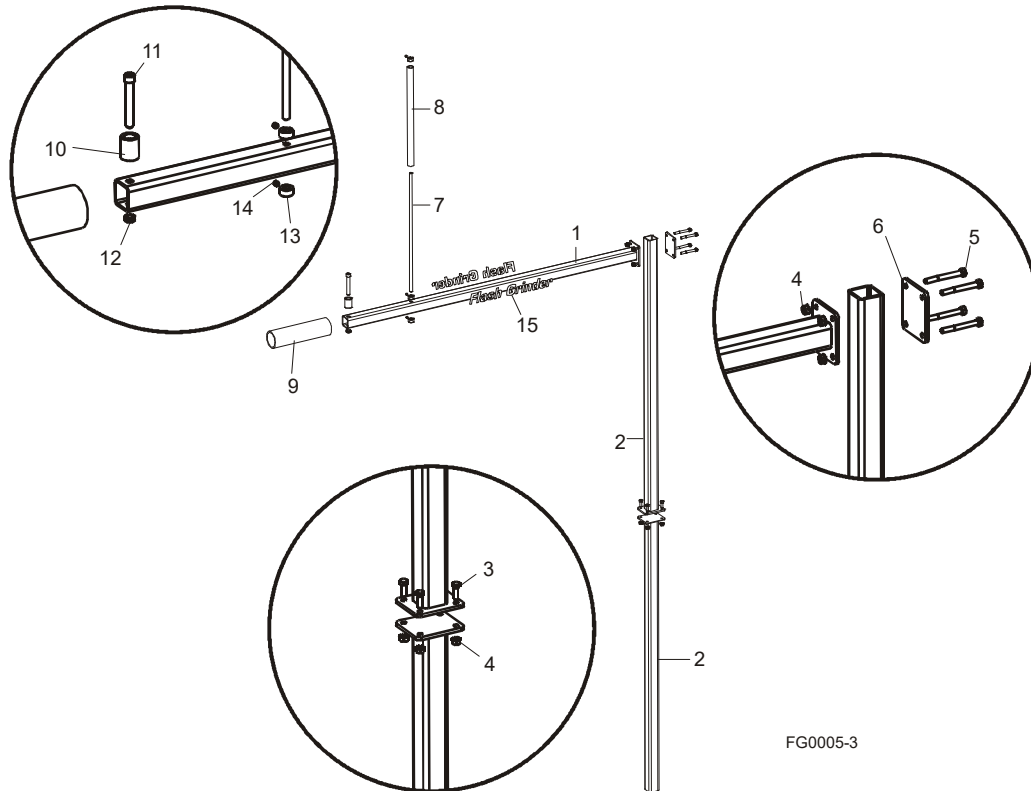
4.2 Grinder



FG0005-2

REF	PART #	DESCRIPTION	COMMENTS	QTY.
	066161	GRINDER ASSEMBLY, 3" WHEEL BAND		1
1		Slide Parts (See Section 4.4)		
2		Grinder Head Parts (See Section 4.5)		
3	066092	Frame Weldment, Grinder Top		1
4		Air System Parts (See Section 4.6)		
5		Clamp Parts (See Section 4.7)		
6	066136	Spacer, Grinder Front		2
7	069581	Decal, Flash Grinder General Warnings		1
8	069582	Decal, Flash Grinder Blade Reorder		1
9	069583	Decal, Flash Grinder Moving Parts Danger		1
10	069585	Decal, Flash Grinder "Wood-Mizer" Text		2
11	069584	Decal, Flash Grinder Text		4
12	F05005-116	BOLT, 1/4-20 X 1 1/4 HEX HEAD GRADE 5		2
13	F05005-101	BOLT, 1/4-20 X 1" HEX HEAD GRADE 5		2
14	F05010-69	NUT, 1/4-20 HEX NYLON LOCK		4

4.3 Blade Hanger



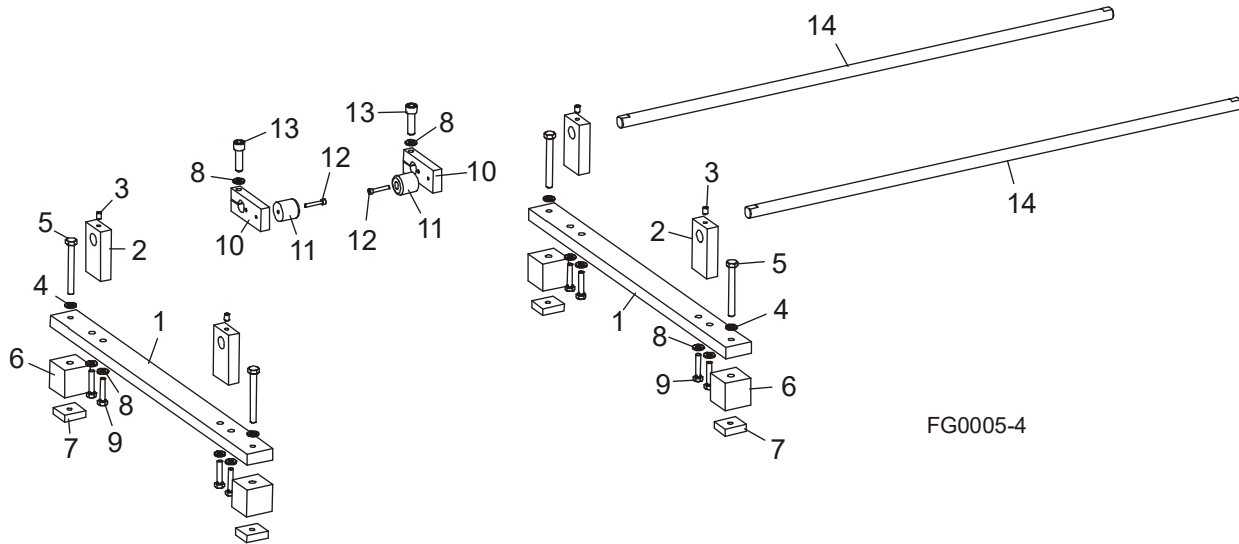
FG0005-3

REF	PART #	DESCRIPTION	COMMENTS	QTY.
	066145	HANGER ASSEMBLY, OVERHEAD BLADE		1
1	066144	Hanger Weldment, Overhead Blade		1
2	066148	Tube Weldment, Blade Hanger Upright		2
3	F05005-1	Bolt, 1/4-20 x 3/4" Hex Head Full Thread		4
4	F05010-9	Nut, 1/4-20 Self-Locking Hex		8
5	F05005-72	Bolt, 1/4-20 x 2 1/4" Hex Head		4
6	066149	Plate, Blade Hanger Mount		1
7	066140	Rod, Blade Stop		1
8	066142	Pipe, 1/2" PVC Wear		1
9	066143	Pipe, 2" PVC Wear		1
10	066141	Block, Blade Stop		1
11	F05007-100	Screw, 3/8-16 x 2 3/4" Socket Head		1
12	F05010-124	Nut, 3/8-16 Hex Nylon Half Lock		1
13	042249	Collar, 3/8" ID Shaft		3
14	F05005-131	Screw, 1/4-20 x 1/4" Cup Point Socket Set		3
15	069584	DECAL, FLASH GRINDER TEXT		2

4 Replacement Parts

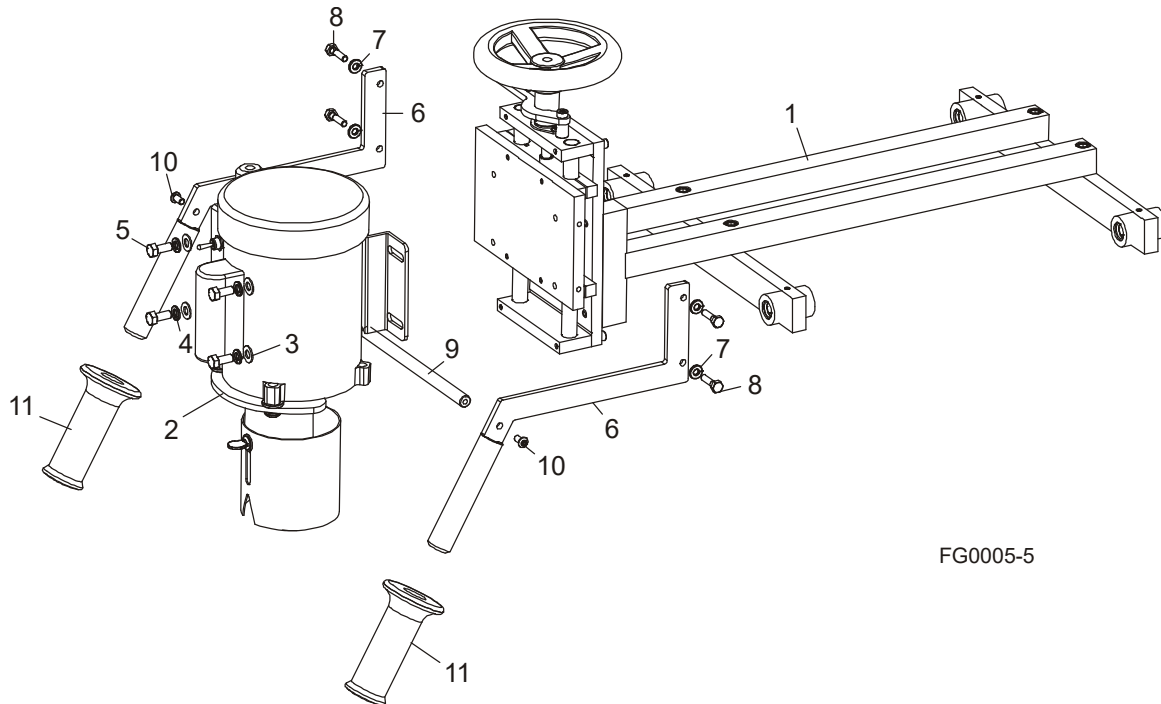
Slide Assembly

4.4 Slide Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	066123	SLIDE ASSEMBLY, BAND GRINDER		1
1	066068	Bar, Slide Bearing Mount		2
2	066064	Block, Rod Mounting		4
3	F05005-47	Screw, 1/4-20 x 3/8" Cup Point Socket Set		4
4	F05011-13	Washer, 5/16" Split Lock		4
5	F05006-28	Bolt, 5/16-18 x 2 3/4" Hex Head Grade 5		4
6	066066	Block, Riser		4
7	066063	Nut, Tubing		4
8	F05011-14	Washer, 1/4" Split Lock		10
9	F05005-116	Bolt, 1/4-20 x 1 1/4" Hex Head Grade 5		8
10	066077	Block, Clamp Stop		2
11	066112	Bumper, 1" OD x 1" Rubber		2
12	F05004-69	Screw, #8-32 x 1" Socket Head		2
13	F05005-48	Screw, 1/4-20 x 1 1/4" Socket Head		2
14	066061	Rod, Bearing Slide		2

4.5 Grinder Head Assembly



FG0005-5

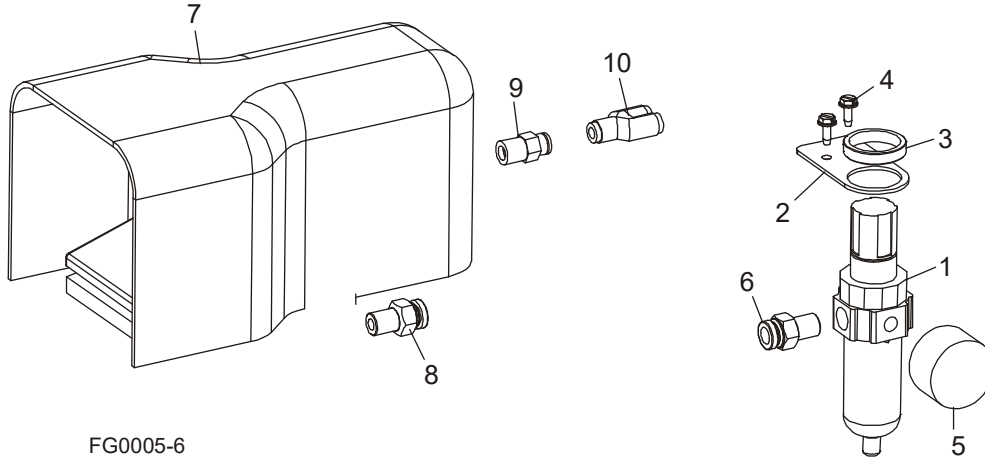
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	066124	HEAD ASSEMBLY, GRINDER SLIDING		1
1		Head Carriage Parts (See Section 4.8)		
2		Grinder Motor Parts (See Section 4.10)		
3	F05011-17	Washer, 5/16" SAE Flat		4
4	F05011-13	Washer, 5/16" Split Lock		4
5	F05006-102	Bolt, 5/16-18 x 3/4" Hex Head		4
6	066104	Bar, Handle Grip		2
7	F05011-14	Washer, 1/4" Split Lock		4
8	F05005-101	Bolt, 1/4-20 x 1" Hex Head		4
9	066158	Rod, Handle Spreader		1
10	F05005-59	Screw, 1/4-20 x 1/2" Stainless Button Head		2
11	066111	Grip, 1" ID Vinyl		2

4

Replacement Parts

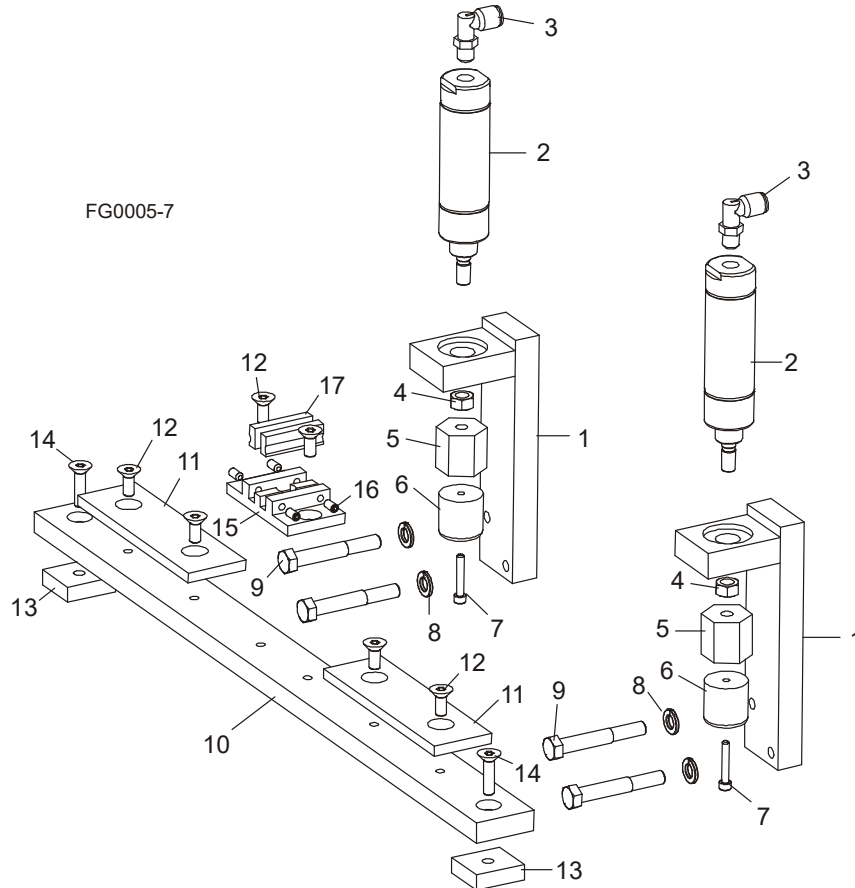
Air System Assembly

4.6 Air System Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	066137	SUPPLY ASSEMBLY, GRINDER AIR		1
1	066109	Filter/Regulator, 150PSI 1/4" NPT Ports Air		1
2	066079	Plate, Air Regulator Mount		1
3	P03056	Nut, Panel Mount		1
4	F05015-7	Screw, #10-24 x 1/2" Self-Tapping		2
5	P02766	Gauge, 160PSI Air		1
6	P21559	Fitting, 1/4" NPT x 3/8" Straight Tube		1
	066146	VALVE ASSEMBLY, FOOT AIR		1
7	066110	Valve, 3-Way Foot Operated		1
8	P21559	Fitting, 1/4" NPT x 3/8" Straight Tube		1
	R01869-2	Tubing, 3/8" Air		67"
9	P20903	Fitting, 1/4" NPT x 1/4" Straight Tube		1
	R01869	Tubing, 1/4" Air		67"
10	042546	Fitting, 1/4" Tube 'Y'		1
	R01869	TUBING, 1/4" AIR		11"
	R01869	TUBING, 1/4" AIR		22"

4.7 Clamp Assembly

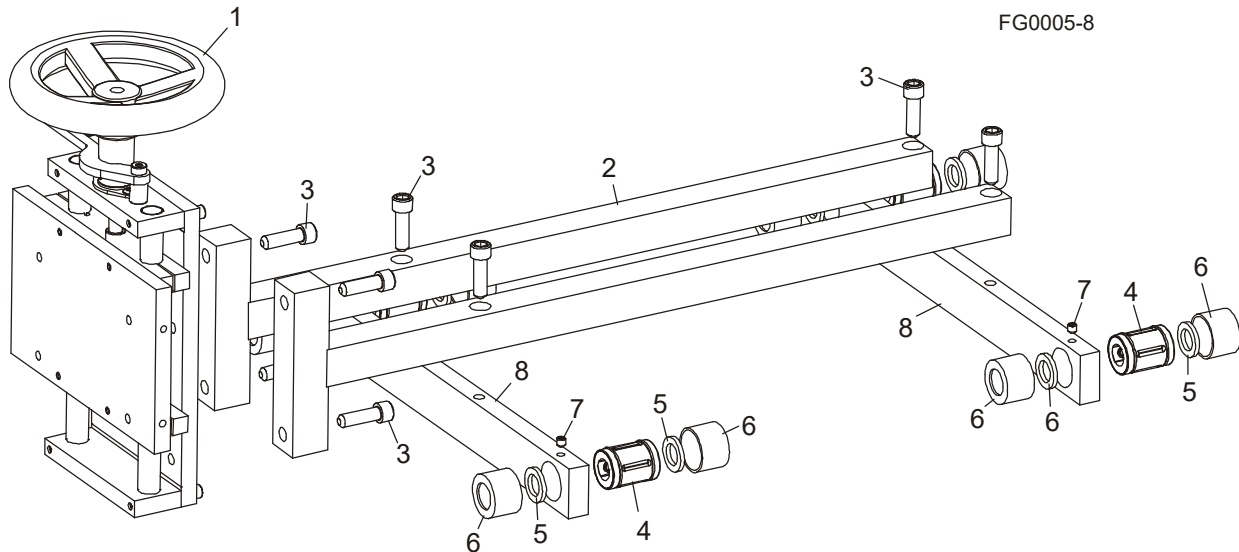


REF	PART #	DESCRIPTION	COMMENTS	QTY.
	066126	CLAMP ASSEMBLY, BAND GRINDER		2
1	066095	Clamp Weldment, Band Grinder		1
2	066108	Cylinder, 1-1/6 Bore x 1 1/2" Stroke Air		1
3	P09736	Fitting, 1/8" MPT x 1/4" Tube Swivel Elbow Air		1
4	F05010-28	Nut, 5/16-24 Hex		1
5	066067	Block, Air Cylinder Adaptor		1
6	066112	Bumper, 1" OC x 1" Rubber		1
7	F05004-69	Screw, #8-32 x 1" Socket Head		1
8	F05011-13	Washer, 5/16" Split Lock		2
9	F05006-30	Bolt, 5/16-18 x 2 1/4" Hex Head		2
	066127	BASE ASSEMBLY, BAND GRINDER CLAMP		1
10	066069	Bar, Bearing Mount		1
11	066078	Plate, Clamp		2
12	F05005-191	Screw, 1/4-20 x 5/8" Flat Socket Head		6
13	066063	Nut, Tubing		2

4**Replacement Parts***Clamp Assembly*

REF	PART #	DESCRIPTION	COMMENTS	QTY.
14	F05005-118	Screw, 1/4-20 x 1" Flat Socket Head		2
15	066128	Block, Anvil Mounting		1
16	F05004-188	Screw, #10-32 x 3/8" Cup Point Socket Set		4
17	066129	Block, Band Grinder Anvil		2

4.8 Grinder Head Carriage Assembly

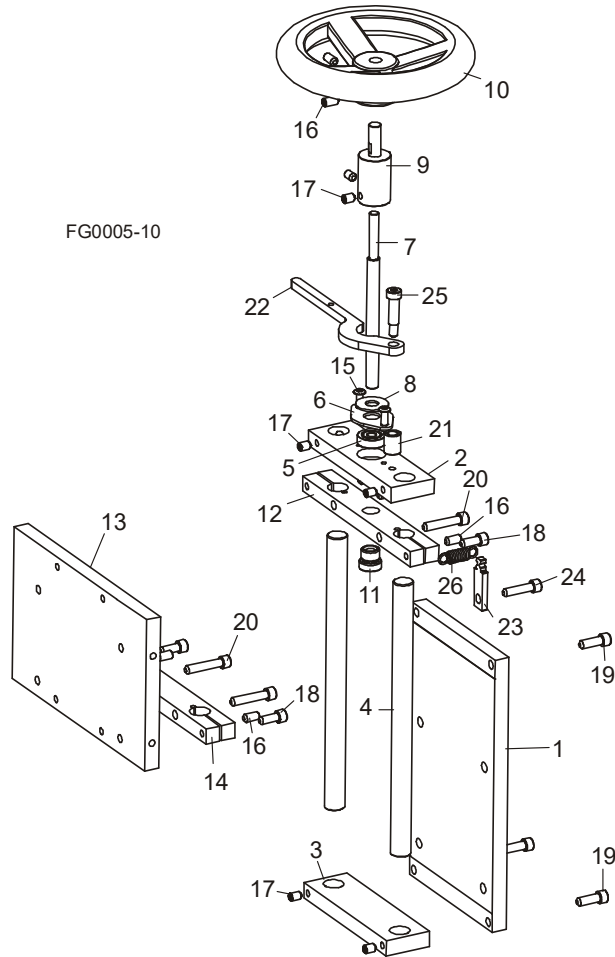


REF	PART #	DESCRIPTION	COMMENTS	QTY.
	066122	CARRIAGE ASSEMBLY, GRINDER HEAD		1
1		Grinder Head Mount Parts (See Section 4.9)		
2	066098	Carriage Weldment, Band Grinder		2
3	F05007-150	Screw, 3/8-16 x 1 1/4" Socket Head		8
4	066115	Bearing, 5/8" ID Linear Ball		4
5	P06455	Washer, 5/8" Grey Felt		8
6	P06454	Cap, Linear Bearing Retaining		8
7	F05005-105	Screw, 1/4-28 x 1/4" Cup Point Socket Set		4
8	066065	Bar, Carriage Mount		2

4

Replacement Parts Grinder Head Mount Assembly

4.9 Grinder Head Mount Assembly



REF	PART #	DESCRIPTION	COMMENTS	QTY.
	066118	HEAD MOUNT ASSEMBLY, BAND GRINDER		1
1	066070	Plate, Rod Slide		1
2	066073	Block, Rod Guide Upper		1
3	066072	Block, Rod Guide Lower		1
4	066155	Rod, Motor Slide		2
5	066113	Bearing, 7mm ID x 22mm OD x 7mm Ball		1
6	066080	Plate, Bearing Retainer		1
7	066083	Shaft, Slide Adjuster		1
8	066114	Washer, .4" ID x 1" OD x .06" Nylon		1
9	066076	Shaft, Hand Wheel Extension		1
10	066084	Wheel, Height Adjuster		1
11	065171	Nut, 3/8-12 ACME x 9/16-18 Flange		1
12	066074	Block, Rod Slide Upper		1

Replacement Parts
Grinder Head Mount Assembly

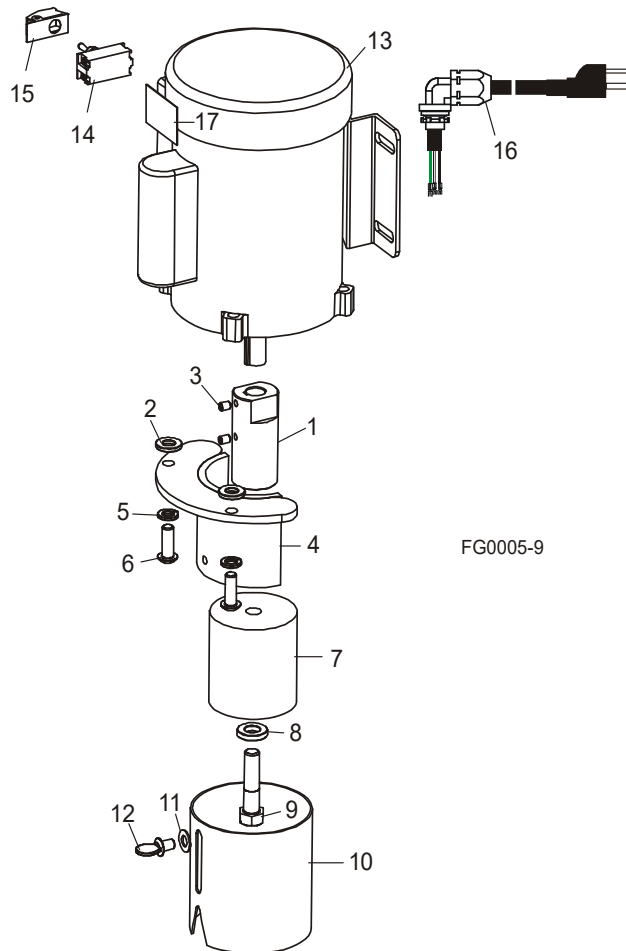
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REF	PART #	DESCRIPTION	COMMENTS	QTY.
13	066071	Plate, Motor Mount		1
14	066075	Block, Rod Slide Lower		1
15	F05004-35	Screw, #10-24 x 1/2" Socket Button Head		2
16	F05005-55	Screw, 1/4-20 x 1/2" Socket Head Nylon Lock Stainless		6
17	F05005-47	Screw, 1/4-20 x 3/8" Cup Point Socket Set		6
18	F05005-83	Screw, 1/4-20 x 5/8" Socket Head		4
19	F05005-26	Screw, 1/4-20 x 3/4" Socket Head		3
20	F05005-48	Screw, 1/4-20 x 1 1/4" Socket Head		4
21	066159	Spacer, Brake Handle		1
22	066081	Arm, Brake		1
23	066082	Plate, Brake Arm Spring Hook		1
24	F05005-89	Screw, 1/4-20 x 1" Socket Head		1
25	F05006-64	Bolt, 5/16" x 7/9" Socket Head Shoulder		1
26	066117	Spring, 3/8" OD x 1.25" Long x .055" Wire Dia. Extension		1

4 Replacement Parts

Grinder Motor Assembly

4.10 Grinder Motor Assembly

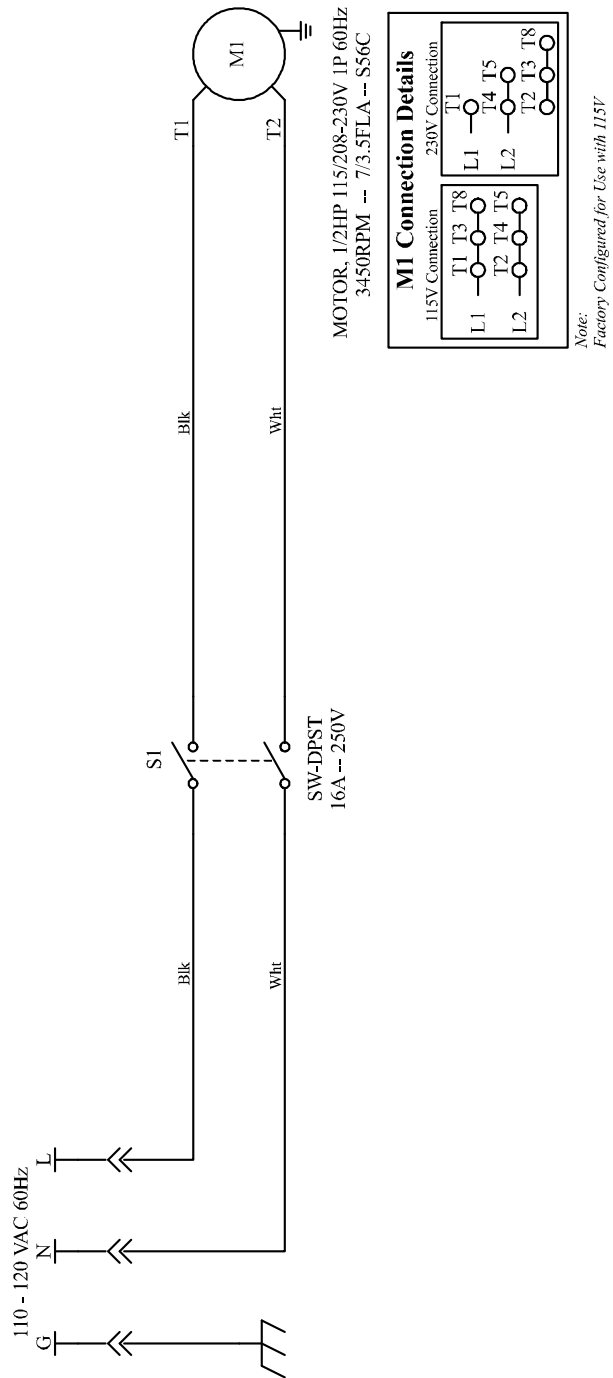


REF	PART #	DESCRIPTION	COMMENTS	QTY.
	066121	HEAD ASSEMBLY, GRINDER 3" MOTOR		1
1	066101	Arbor Weldment, Band Grinder		1
2	066156	Spacer, Motor Guard		2
3	F05005-47	Screw, 1/4-20 x 3/8" Cup Point Socket Set		2
4	066107	Guard Weldment, Band Grinder		1
5	F05011-4	Washer, 3/8" Split Lock		2
6	F05007-167	Screw, 3/8-16 x 1" Button Socket Head Grade 5		2
7	066125	Wheel, 3" x 3" Abrasive Cup Grinding		1
8	066157	Spacer, Motor Guard		1
9	F05008-180	Bolt, 1/2-20 x 2" Left-Hand Thread Hex Head Grade 5		1
10	066062	Guard, Band Grinding Wheel		1
11	F05001-17	Washer, 5/16" SAE Flat		1

REF	PART #	DESCRIPTION	COMMENTS	QTY.
12	F05006-147	Screw, 5/16-18 x 1/2" Shoulder Thumb		1
	066120	Motor Assembly, Band Grinder		1
13	130064	Motor,Marathon 1/2HP 1P 115/230V 3450RPM	ECN: 38402, 066119-OBS	1
14	052440	Switch, DPST Toggle w/Screw Terminals		1
15	069578	Safety Cover, Black Toggle Switch		1
16	069579	Cable Assembly, Band Grinder Power		1
	052293-5	Junction Block, 5-Position Wire Clamp		2
17	S20097	Decal, Motor Direction		1

SECTION 5 ELECTRICAL INFORMATION

5.1 Electrical Schematic



FG0004

FIG. 5-1

5.2 Component List

ID	Wood-Mizer Part No.	Description
M1	130064	Motor,Marathon 1/2HP 1P 115/230V 3450RPM
S1	052440	Switch, DPST Toggle 1HP Screw Terminals

SECTION 6 AIR SYSTEM INFORMATION

6.1 Schematic

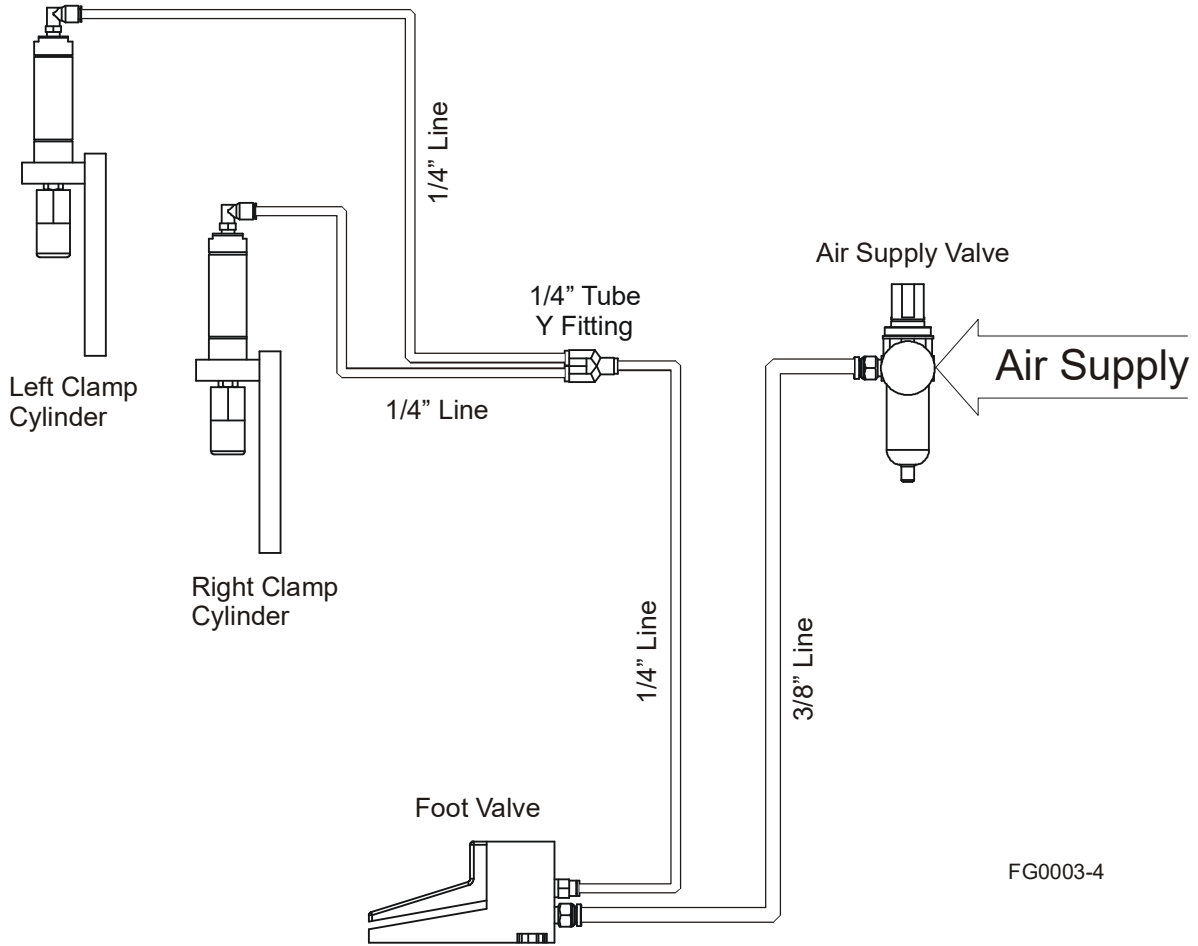


FIG. 6-1

INDEX

C

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