5/20/2010

Operator's Manual and Part's List
Model G-75
Belt Grinder

Serial No: _____

Date Purchased: _____

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MACHINE PLACEMENT/ SET UP / INSTALLATION

1. Machine Placement:

1.1 Anchoring the machine:

NOTE: Machine must be located away from flammable areas, congested areas, traffic areas, and areas where others will be working!

Grinder exhaust should always face an area that is unoccupied, never toward other workers, aisles or areas that contain waste containers, rags, etc.
Grinder should always be positioned so operator can be accessible to all sides and that there are no trip hazards or liquids present.

Grinder must be anchored on a level hard surface! Machine must be removed from the pallet. Anchoring of the machine must be done to prevent movement of the unit during operation. The base is supplied with four mounting holes on the four corners. (Figure 1) Anchoring must be done in a suitable fashion.

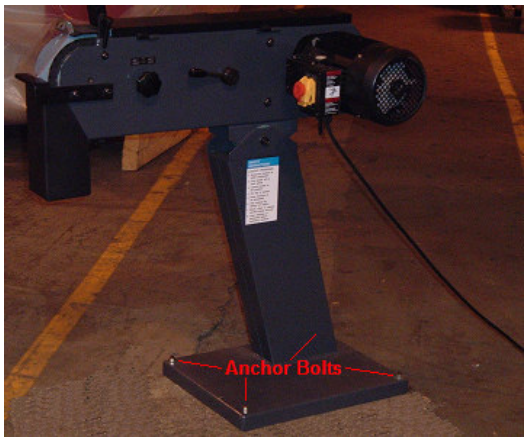


Figure 1

Correct Belt Rotation

Figure 2

1.2 Power Hook Up:

NOTE: Before connecting power make sure power is OFF and make sure there are no damaged parts on the machine, and that all components (wheels and belts) move freely and are not rubbing on material rests etc.!

A qualified electrician must do connection of power to this machine. Machine is supplied with a power cord that cam have a plug installed or can be hardwired into a suitable power source. 20-amp service is recommended for this machine.
Rotation on this machine must be in the correct direction. The belt is to travel forward from the motor end of the unit. (Figure 2) If rotation is incorrect simply reverse to leads from the incoming power.
This machine is equipped with CE certified components with low voltage drop out, and flip up start feature to prevent accidental starting.

For phase converter connections please refer to the manufactures instructions.

1.3 Start Up:

To start the machine on the motor is the start switch. In order to start the machine the yellow lock out door must be raised and the green start button pushed. (This prevents accidental start up) The yellow door must remain open until you wish to stop the machine; this can be done by either pushing the red button or pushing down on the door or E-stop button on the door. (Figure 3) To lock the machine out simply snap the yellow door close until it latches and insert lock out through the slot in the switch base.

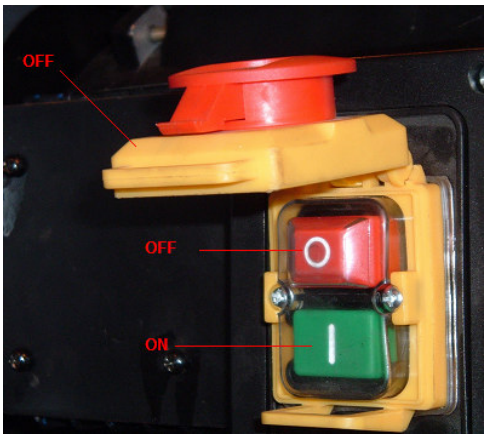


Figure 3

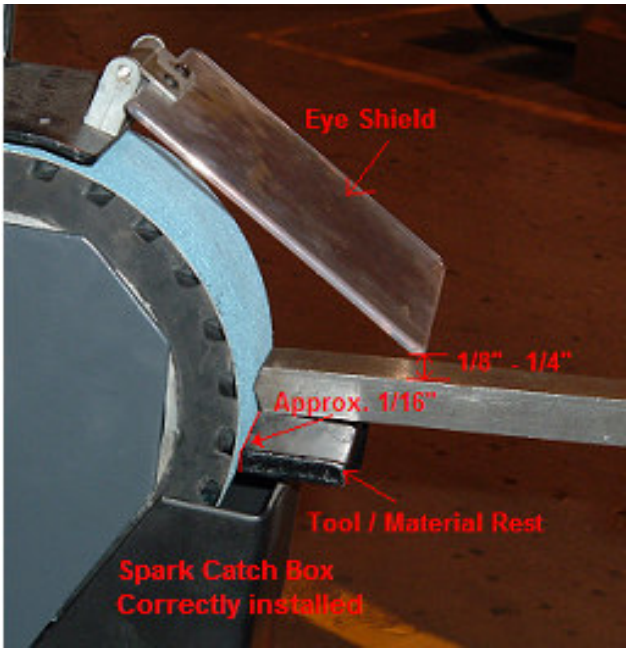


Figure 4

1.4 Adjusting the machine for operation:

NOTE: Do not operate this machine until all adjustments have been made and you have read the safety instructions!

Front tool / material rest must be adjusted approx. 1/16” (gap) from the contact wheel. Tool rest must be tightened. (Figure 4)

Plexiglas eye shield must be set for the material you are grinding. This shield should be as close to the material as possible without restricting grinding operation, approx. 1/8” – 1/4” (Figure 4)

Spark catch box must be installed toward the back of the machine as far as it will go. (Figure 4)

1.5 Belt Installation / tracking:

NOTE: Turn off power and lock out whenever changing or installing grinding belt! Always use high quality belts of the correct size!

Belt must be installed are tracked properly to ensure best performance, longest belt life, safety, and to prevent premature wear to the machines components.

1. Installation begins with loosening the spark catch box and sliding it towards the front of the machine and locking it in that position to gain belt clearance or by removing it from the machine. (Figure 5) Remember to reinstall this box before use. (This is a good opportunity to empty the slag from the box)
2. Open access door on the left hand side of the machine. Turn Allen bolt and carefully lower the door. Open the top belt guard and swing it open to the right. Note: When opening this door the rear flap must be opened and folded forward. (Figure 6)
3. Release the tension release handle on the motor side of the machine. Moving this forward and down releases the belt tension. The tension is released by moving the motor forward. (Figure 7)
4. Remove the old belt by pulling it outward from the drive and contact wheels. You may need to maneuver the belt around the machines door hinges and upper angle guide plate. (Figure 8)

Figure 5

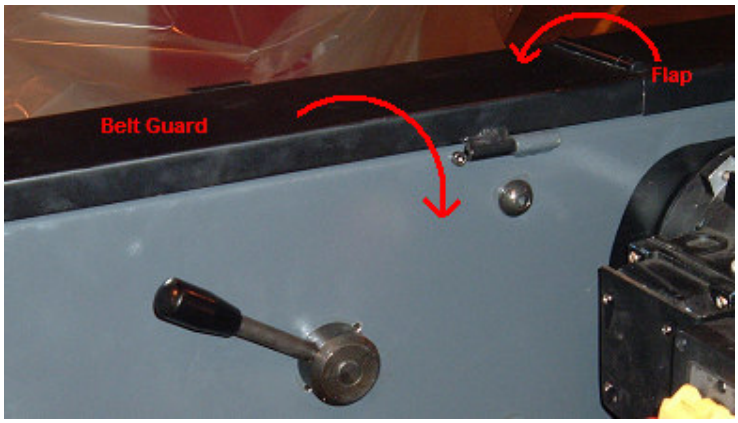


Figure 6

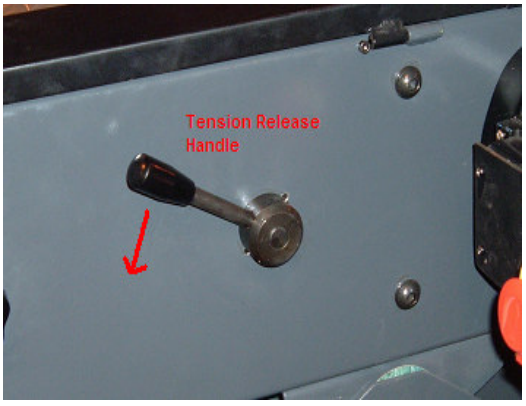


Figure 7

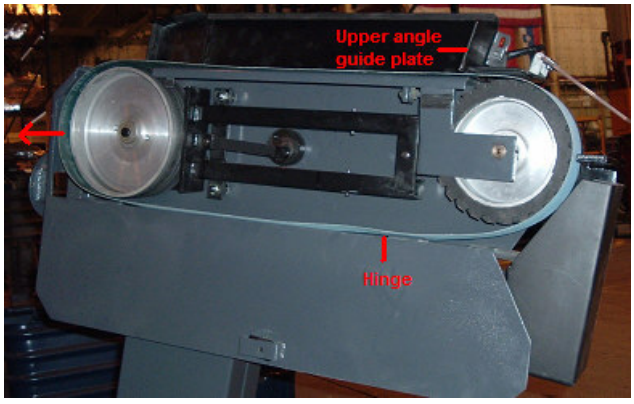
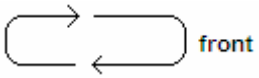


Figure 8

NOTE: Arrows on belt must be pointing in direction of rotation!

5. Discard old belt. Install new belt in reverse order making sure the arrows printed on the inside of the belt are going in the direction on rotation. If belt is reversed the seam of the belt can be damaged causing premature belt failure. 

Loop the belt around the contact are drive wheel, try to keep it centered.

6. Once belt is in position, using the belt tension handle pull the handle up which moves the motor back putting proper tension on the new belt. Make sure handle is engaged fully. Close all doors and covers on the machine and readjust the spark catch box, and tool rest.

7. With all the doors closed except the top cover and before power is restored to the machine visually look at the placement of the belt on the contact wheel. If the belt is close to being centered by hand carefully push the belt in direction of rotation. This will show you how much tracking is needed. If the belt does not move too much left or right, close the top cover and restore power. Quickly jog the machine and watch where the belt is tracking. The belt must track in the center of the contact wheel as seen in figure 9. If the belt is tracking off as seen in figure 10 adjustments must be made as described in step 8.

Figure 9

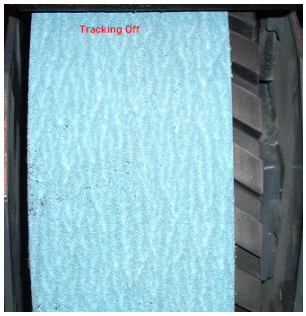


Figure 10

8. Tracking of the must be done to prevent the belt from walking on the contact wheel and cutting into the side of the machine or causing shredding of the belt. Start the machine and make your tracking adjustment by turning the tracking knob on the motor side of the machine in very small increments until the belt runs center on the contact wheel. The knob is labeled left and right as to what direction the belt will move with each adjustment. (Figure 11)

NOTE: When a new belt is installed there should be a break-in period so the belt will wear in evenly. For the first 5 minutes of use lighter pressure should be used!

Figure 11

2. Safety:

2.1 Dress properly / Do's and Do Not's:

1. **Do** wear approved safety glasses with side shields, or full-face shield is recommended.
2. **Do** wear non-slip foot ware. **Do not** over reach! Keep a safe footing.
3. **Do** wear a dust mask if material being ground is dusty.
4. **Do** wear hearing protection**.**
5. **Do** keep guards in place and in good condition. Lock machine out if guards or

components are broken or missing. Replace any worn or broken parts without delay.

6. **Do** make sure the incoming power supply is up to codes and kept in good condition.
7. **Do** always wait until belt has stopped completely before opening covers / doors, reaching into point of operation or making adjustments.
8. **Do** use good quality belts of the right size. Change belts when needed. If the belts are worn, burnt, frayed or cut they must be changed.
9. **Do** use the tool rest or angle guide when grinding. Do not free hand.
10. **Do** keep hands away from the belt and parts of material being ground. The hot parts can burn you.
11. **Do** keep all work surfaces and spark catch box clean.
12. **Do** adjust the machine for a comfortable work height.
13. **Do** keep area of machine well lit.
14. **Do** keep all visitors and children a safe distance from machine.
15. **Do** anchor the machine to a solid level floor.
16. **Do not** wear loose clothing, jewelry, neck ties, rings, loose long hair, gloves, or clothing that will burn easily.
17. **Do not** force the work. Too much pressure or hard jabs can cause injury, ruin the belt, create excessive heat.
18. **Do not** use grinder if persons are close to the exhaust end of the machine.
19. **Do not** operate machine if the spark catch box is not installed. Fire Hazard!
20. **Do not** operate the machine if under the influence of drugs, alcohol, or medications.
21. **Do not** use machine for purposes that it was not intended for. Do not force the material.
22. **Do not** leave the machine running unattended. Always turn off machine and wait for it to stop before walking away.

3. Operation of the machine:

3.1 Adjusting the machine for comfortable height.

1. Loosen the head tilt lock bolt on the pivoting point of the base. Do not loosen too much that the grinding head tilts too freely. With this bolt loosened tilt the grinding head up or down to suit your needs. Securely tighten this bolt. (Figure 12)

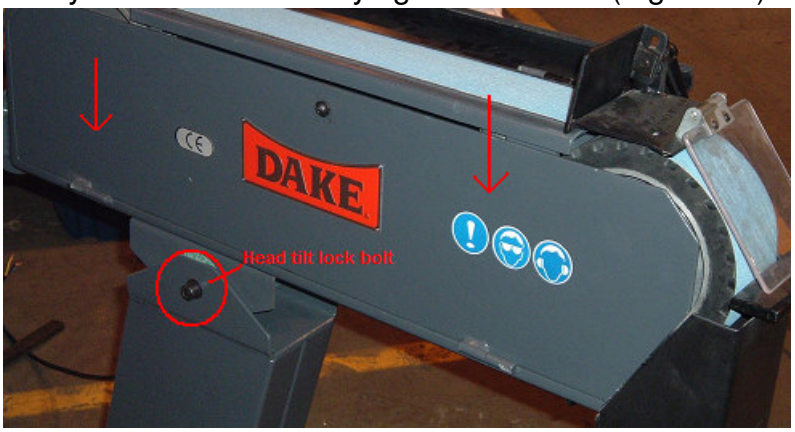


Figure 12

3.2 Adjustment of tool / material holder and angle guide plate.

1. Adjustment of tool / material rest and eye guard is outlined in section 1.4 and figure 4

2. Adjustment of upper angle guide. This guide is to be used as a guide when grinding across the surface of the belt. This feature allows you to grind long or flat pieces of material without obstructions. (Figure 14) The guide must be used to prevent the material from getting away from you and causing possible injury. This guide can also be used at an angle for grinding bevels on material. This adjustment is made by opening the top cover (Rear cover flap must be folded forward before cover will open all the way. This cover will rest on the motor) loosen the locking handle on the motor side of the machine on the guide. Angle this guide to the angle you require by moving it up or down and setting the desired angle. Make sure this guide is not on the belt but slightly above it. Lock the handle down. (Figure 13) **NOTE: When grinding on the surface use extreme caution and safety measures!**

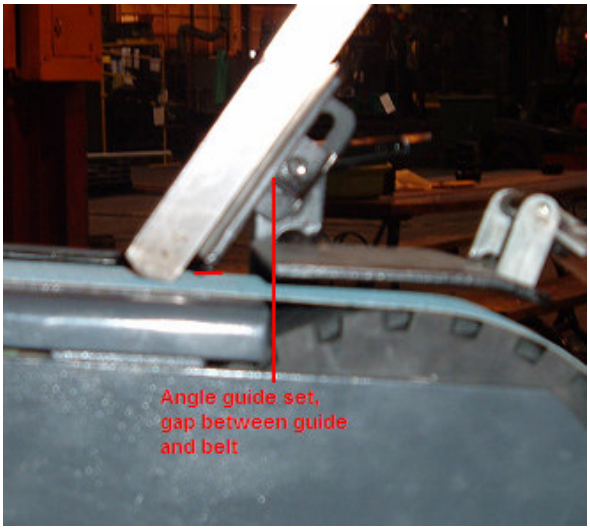


Figure13

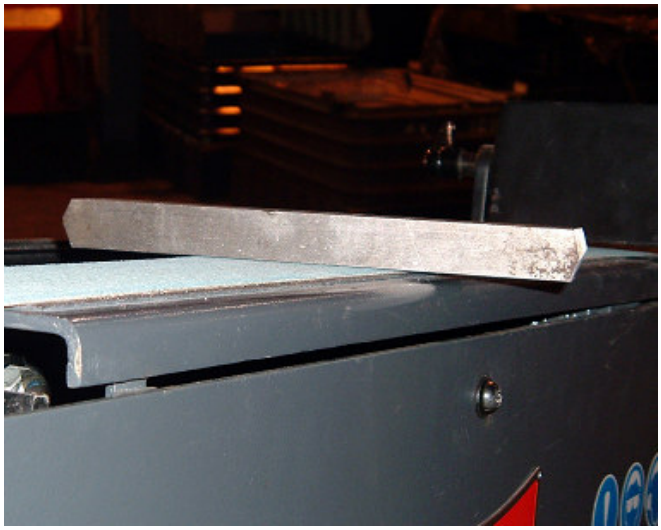


Figure 14

3.3 Grinding of material:

1. Always introduce the material to the belt with a slow motion. Do not jab the material into the belt. Doing this can cause the belt to tear or cut. Once contact is made with the belt keep a firm steady pressure on it. Do not apply so much pressure that it causes the motor to bog down. This creates excessive heat, contact wheel wear, belt wear and could cause motor damage. **Always hold the material with both hands! Always use the tool / material rest or guide surfaces! Never make adjustments while the machine is running!**

4. Cleaning and Maintenance:

1. After every use clean the machine thoroughly. If using compressed air take extra care. Keep contact wheel and vent grooves clean, upper grinding surface clean especially the graphite strip under the belt. Sweep floor around machine to prevent build up of grinding dust.

2. Routine Maintenance consist of frequent cleaning, replacement of contact wheel when needed, keeping all fasteners tight, emptying the spark catch box often. Replace any worn parts without delay. Keep Plexiglas eye guard clean, and replace when necessary.

3. After time the graphite wear strip may need to be changed. (Figure 15) This is done by removing the old strip with a putty knife and cleaning the surface. Using contact cement the new strip can be glued into place. **NOTE: Never use the machine if the graphite wear strip is damaged or missing!**

4. TIP: Exhaust from the grinder will throw sparks a good distance and should be controlled. One way of keeping the area safe and clean is to install a metal elbow (such as used on dryer vents) to the exhaust flange on the back of the grinder head. This elbow is then directed downward into a bucket of water. This keeps sparks from flying outward, cools the material slag and keeps dust to a minimum.

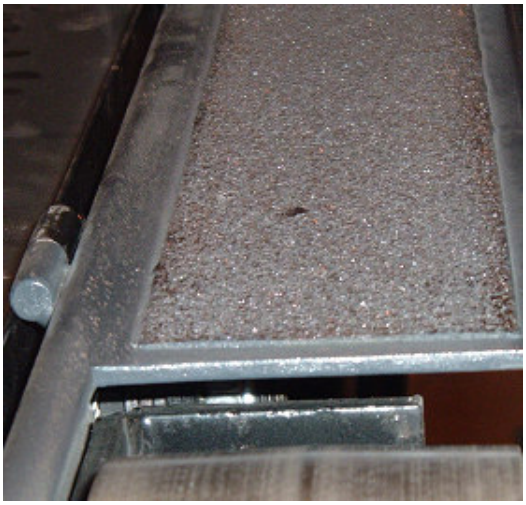
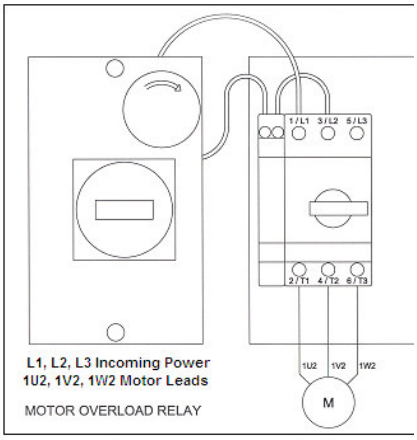


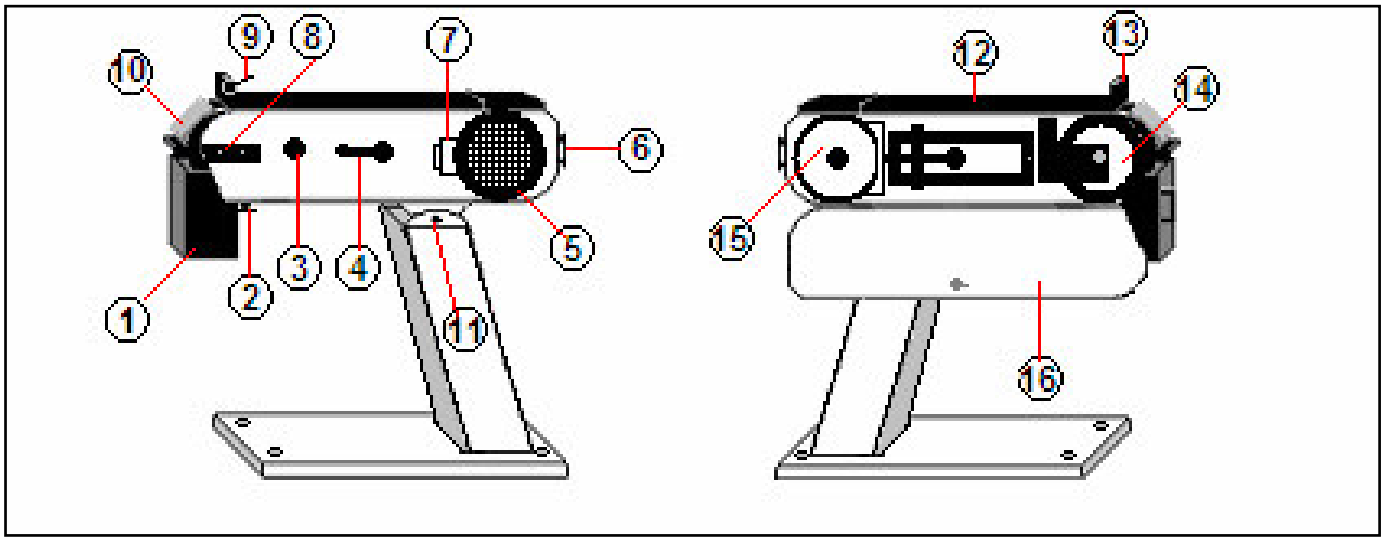
Figure 15

5. Machine specifications:

Machine type	Horizontal belt grinder
Belt size	3” x 79”
Horse Power	4 HP
Contact wheel size	3” x 8”
Belt speed	6600 f.p.m.
Grinding plane	3” x 21”
Electrical components	CE approved
Weight	187 lbs.
Work height	18 - 48 in.
Base dimensions	17 x 21 in.
Machine width	22 in.
Machine length	39 in.
Over all height	43 in.
Noise levels	85 dB @ no load



5.1 Machine part descriptions:



1. Spark catch box
2. Spark catch box lock knob
3. Tracking adjustment
4. Belt tension release
5. Motor
6. Exhaust port
7. Start switch
8. Tool / material rest
9. Angle guide handle
10. Plexiglas eye shield
11. Height adjustment bolt
12. Top cover and flap
13. Angle / work guide
14. Contact wheel
15. Drive / Steering wheel
16. Side cover

6. Warranty:

WARRANTY: If, within a period of one (1) year from date of shipment, any part of any equipment sold by Dake is defective in material or workmanship and is so found after inspection by Dake, it will be replaced or repaired at the option of Dake, providing the equipment has been given normal and proper usage and is still the property of the original Purchaser. Purchased components such as Micro Drop mist system or the like, installed as a part of Dake equipment are warranted only to the extent of the original Manufacturer's warranty. Dake is not responsible for any service work performed unless authorized in advance.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER WRITTEN, ORAL OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE). UNDER NO CIRCUMSTANCES SHALL DAKE BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

NOTES: _____

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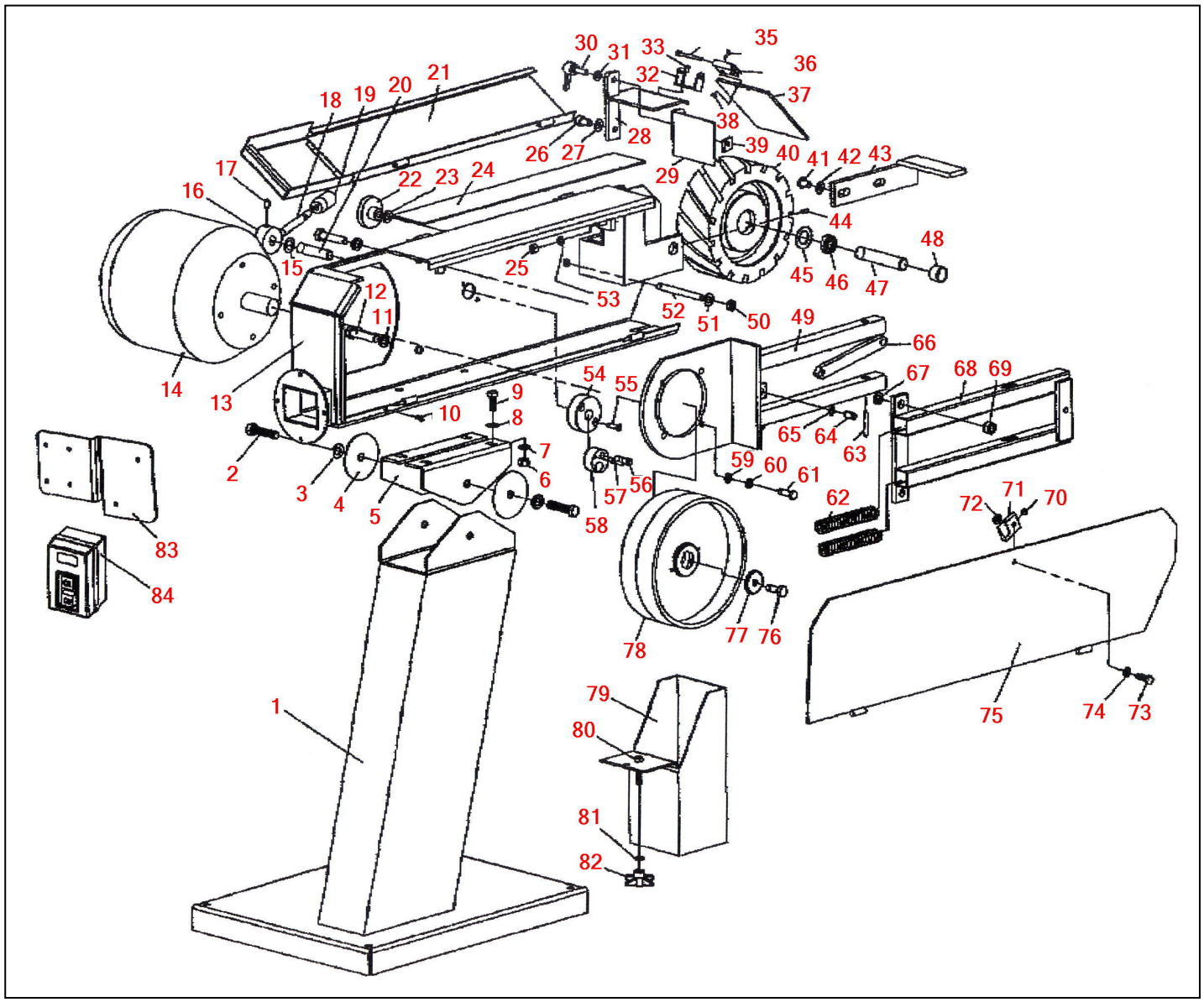
7. Diagram and Parts List:

Model G-75

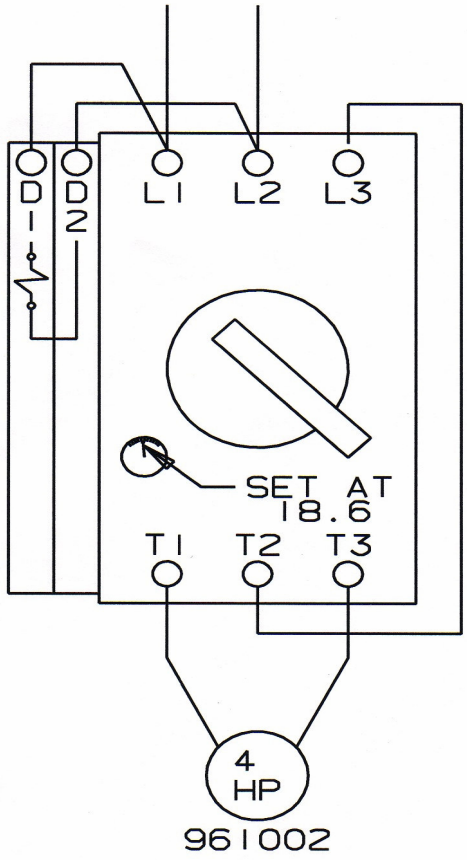


Model G-75 Parts List

Item	Description	Part No	Qty
1	Stand	301488	1
2	Hex. screw M12x30		2
3	Washer		2
4	Paper spacer	301489	2
5	Clamp for angle & height adjustment	301550	2
6	Nut M10		4
7	Washer		4
8	Washer		4
9	Hex. Screw M10x20		4
10	Hex. Screw M5x10		2
11	Washer		2
12	Hex. Screw M12x50		2
13	Body	301490	1
14	Motor 220 volt 3 phase	301491	1
14	Motor 220 1 phase	301815	
15	Washer		1
16	Belt tension release base	301492	1
17	Inner hex. Screw M8x20		1
18	Belt tension release lever	301493	1
19	Sleeve, handle	301494	1
20	Shaft	301551	1
21	Belt guard with flap	301552	1
22	Tracking adjust knob	301553	1
23	Washer		1
24	Graphite wear strip	301554	1
25	Nut		2
26	Hex. Screw M10x15		3
27	Washer		2
28	Top work support	301495	1
29	Top work support plate	301496	1
30	Lock handle	301497	1
31	Washer		1
32	Eye protector base	301498	1
33	Screw M5x8		2
34	Hex. Screw M5x50		1
35	Screw M4x12		2
36	Eye protector hinge	301499	1
37	Eye protector, clear	301500	1
38	Nut M4		2
39	Block with thread	301501	1
40	Contact wheel	301555	1
41	Hex. Screw M10x15		2
42	Washer		2
	60 Grit belt	77021	

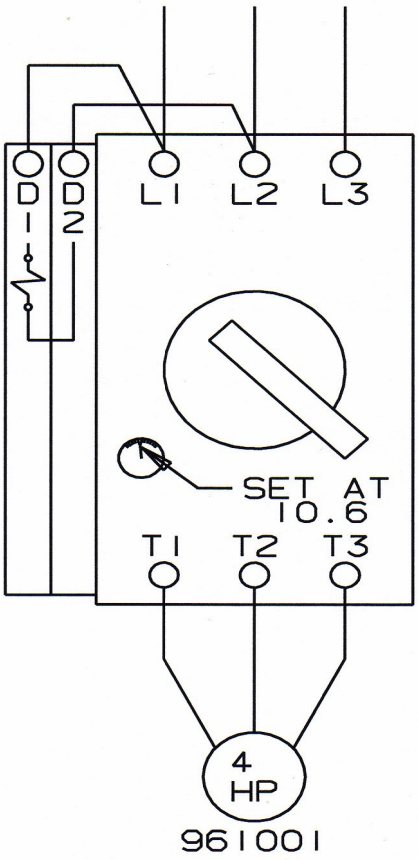
Item	Description	Part No	Qty
43	Work support		1
44	Screw M5x16		1
45	Stop ring	301502	2
46	Bearing	301643	2
47	Shaft, axle	301503	1
48	Spacer, bushing	301504	2
49	Motor support	301505	1
50	Nut		1
51	Butterfly spring	301556	1
52	Screw bar	301506	1
53	Washer		2
54	Base	301507	1
55	Screw M6x25		2
56	Shaft	301508	1
57	Roll Pin		1
58	Eccentric wheel	301509	1
59	Washer		4
60	Bolt M8x22		4
61	Spring	301510	2
62	Spring	301512	2
63	Roll pin	301511	2
64	Pin shaft	301513	1
65	Stop ring	301514	3
66	Draw bar	301515	1
67	Butterfly spring	301516	12
68	Support	301517	1
69	Belt adjustment device	301518	1
70	Screw		1
71	Protect buckle	301519	1
72	Butterfly spring	301520	2
73	Screw M10x30		1
74	Washer		1
75	Side cover	301521	1
76	Bolt M10x30		1
77	Washer		1
78	Steering/drive wheel	301522	1
79	Spark catch box	301523	1
80	Bolt M8x15		1
81	Washer		1
82	Knob, spark catch box	301524	1
83	Fixture plate	301577	1
84	On/off switch (see elect. Diagram)		1
	40 Grit belt	77010	

MACH'G. TOLERANCE UNLESS SPECIFIED	DATE	SYM.	CHANGES	BY
FRACTIONAL: ±.010 DECIMAL: ±.002 ANGLE: ±1/2° BREAK EDGES REMOVE BURRS				
UNDERSCORED DIMENSIONS NOT TO SCALE				



961002

220V SINGLE PHASE



961001

230 VOLT THREE PHASE

DAKE GRAND HAVEN, MICH.	WIRING FOR 9-61XXX GRINDER			
SCALE:	MAT'L.		STOCK NO.	USED ON
DR. HDD TR.				
CH. AP.	DESIGNED BY	PATT. NO.	FILE NO.	DRW. NO.
DATE: 7/21/08 02:18P	APPROVED BY			87203

Part number	Part name	Qty.
302062	Starter Enclosure	1
302063	Under voltage protection	1
302065	3 phase starter 10-16 amp	1
301781	1 phase starter 16-20 amp	1
302236	300 mf (blue startcapacitor)	1
302381	40 mf (black run capacitor)	1