



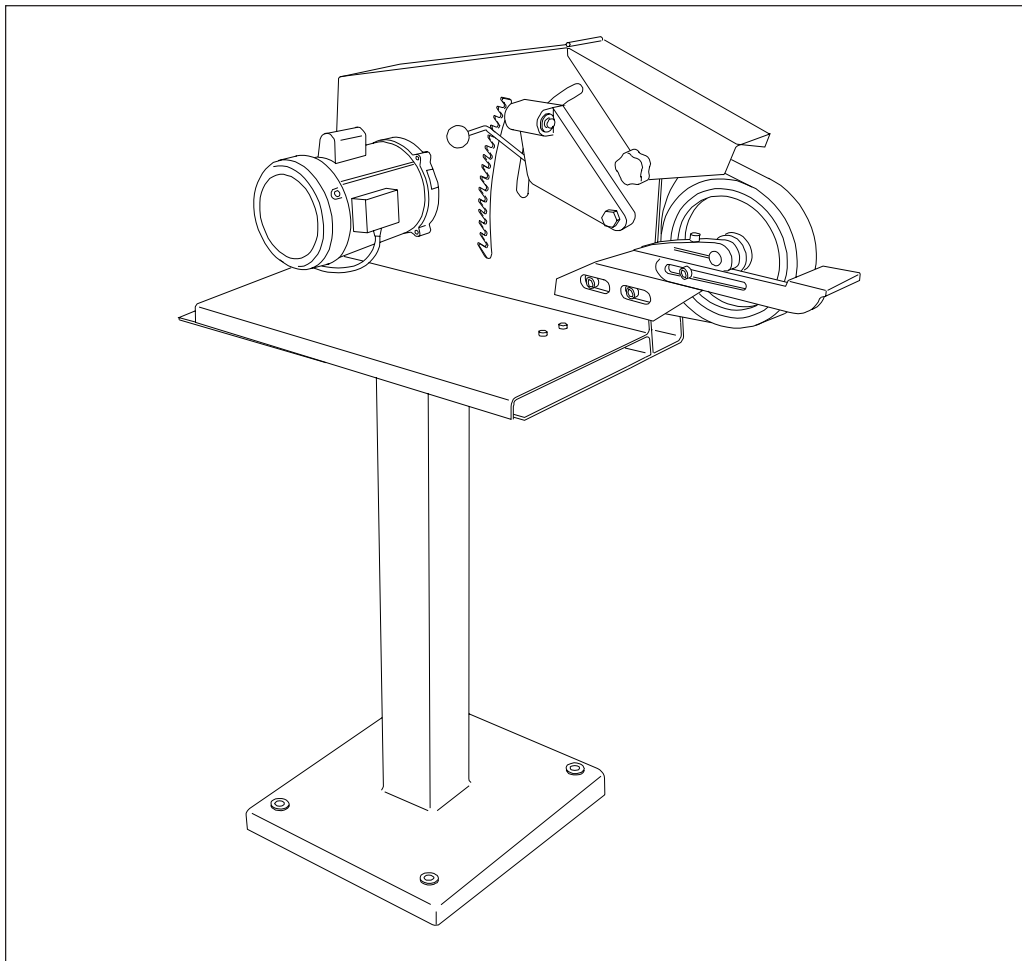
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WMH TOOL GROUP

Operating Instructions — Parts Manual

Square Wheel Belt Grinder

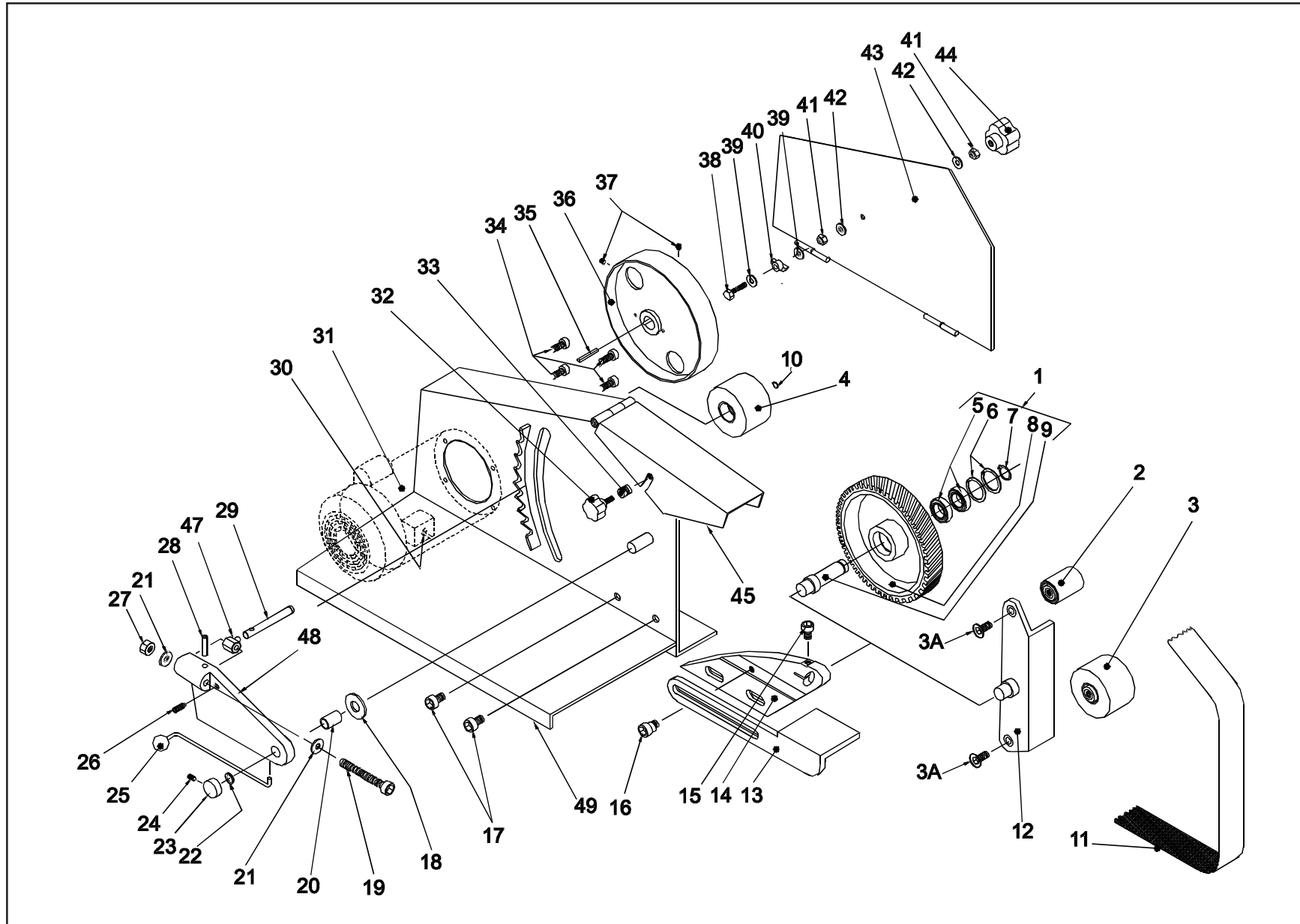
Models: 4103, 4106, and 4126AC



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Exploded View - Square Wheel Belt Grinder

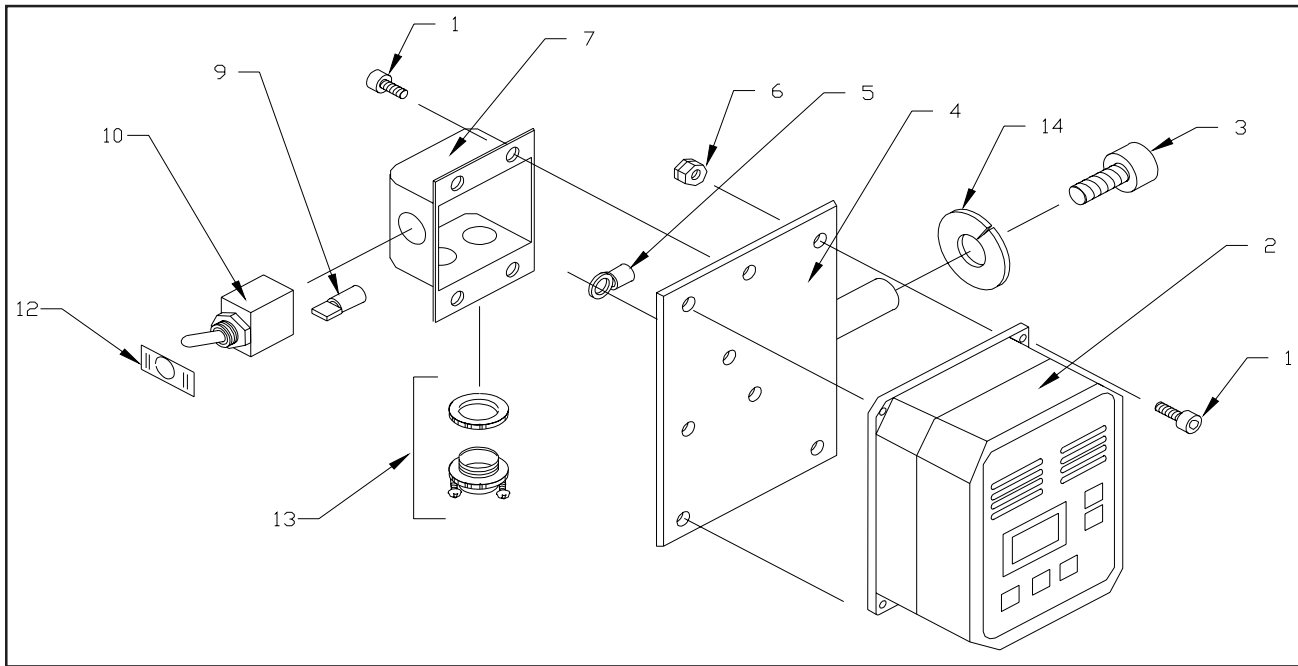


Parts List - Square Wheel Belt Grinder

Ref. No.	Part Number	Description	Qty.
1	5510944	Contact Wheel Assy, 10 x 2 Serrat, 90 Duro	1
	5510943	Contact Wheel Assy, 8 x 2 Smooth, 50 Duro	1
	5510942	Contact Wheel Assy, 8 x 2 Serrated, 50 Duro	1
2	5044590	Contact Wheel Assy, 1-1/2 x 2	1
3	5044610	Contact Wheel Assy, 3 x 2	1
3A	9049821	Screw, Flat Head Cap	2
4	5507582	Idler Wheel	1
5	9100331	Bearing	2
6	9074011	Retaining Ring, Internal	2
7	9074081	Retaining Ring, External	2
8	5510946	Contact Wheel, 8 x 2 Serrated, 50 Duro	1
	5510947	Contact Wheel, 8 x 2 Smooth, 50 Duro	1
	5510948	Contact Wheel, 10 x 2 Serrated, 90 Duro	1
9	5053231	Shaft, 8 x 10 Wheel	1
10	9074381	Retaining Ring, External	1
11	9112811	Abrasive Belt, 2 x 72, 50 Grit (Standard - optional grit below) (10 piece minimum order)	1
12	5044400	Platen Casting	1
13	5044410	Work Rest Casting	1
14	5044370	Head Casting	1
15	9128441	Screw, Socket Head Cap 3/8-16 x 1	1
16	5049990	Screw, Work Rest Machine	1
17	9129881	Screw, Socket Head Cap 3/8-16 x 5/8	2
18	9055361	Flat Washer, Nylon 1/2 I.D. x 1 O.D.	1
19	9129861	Scr, Socket Head Cap, Fill Thrd, 3/8-24 x 3	1
20	5046571	Bearing, Idler Housing	1
21	9055381	Flat Washer, Nylon, 3/8	2
22	9010271	O-Ring, 1/2	1
23	5044651	Cap, Idler Housing Pin	1
24	9133041	Set Screw, Socket Head 1/4-20 x 1/4	1
25	5046560	Lever, Tension	1
26	9133191	Set Screw, Nylon Tipped 5/16-18 x 3/4	1
27	9129561	Locknut, Hex, 3/8-24	1
28	9059811	Roll Pin, 3/16 x 1-1/2	1
29	5053301	Shaft, Idler Pulley	1

Ref. No.	Part Number	Description	Qty.
30	5541241	Switch (Model 4103 only)	1
	5644231	Manual Motor Starter (Model 4106 only)	1
31	9066821	Motor & Switch, 1 HP, Single Phase (Model 4103)	1
	9066831	Motor, 2 HP, 3 Phase (Model 4106)	1
	5508076	Motor, 1 HP, 3-Phase (Model 4126AC only)	1
32	9070361	Knob, Hand	1
33	9070781	Nut, Allen, 5/16-18	1
34	9128671	Bolt, Hex Head, w/Nylock 3/8-16 x 3/4	4
35	9114320	Key, 3/16 x 3/16 x 1-1/4	1
36	5044511	Pulley, Drive	1
37	9054541	Set Screw, Socket Head 5/16-18 x 1/2	2
38	5630451	Screw, Socket Head Hex 5/16-18 x 1-1/2	1
39	5077041	Lock Washer, 5/16	2
40	9070381	Latch, Cam	1
41	5630061	Nut, Hex, 5/16-18	1
42	5507583	Washer, Nylon 5/16	2
43	5055311	Door	1
44	9070371	Knob, Hand	1
45	5044630	Guard Flap Assembly	1
46	9057461	Washer, Flat 0.26 x 0.63 x 0.06	1
47	5046600	Tracking Leader Assembly	1
48	5046540	Casting, Idler Housing	1
49	5541030	Main Frame Assembly	1

Parts List - Inverter

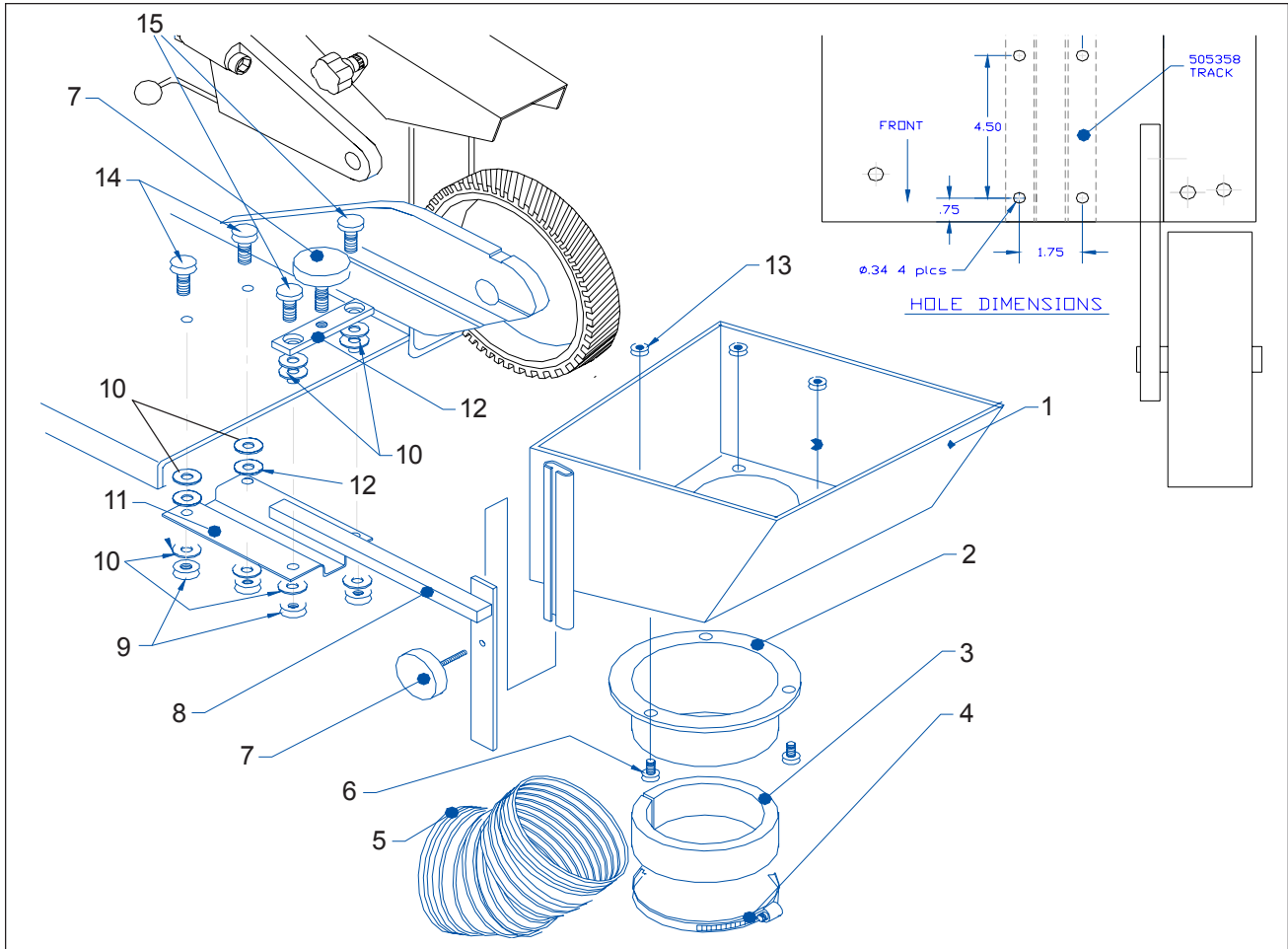


Ref. No.	Part Number	Description	Qty.
1	5550874	Screw, Socket head Cap, 10-32NF x 3/8	7
2	5507817	inverter (1ph, 120V, 50/60Hz)	1
	5507818	Inverter (3ph, 220V, 50/60Hz)	
	5511447	Inverter (3ph, 440V, 50/60Hz)	
3	9128571	Screw, Hex Head 1/2-13 x 1	1
4	5515215	Mount, Inverter	1
5	9119481	Terminal, Full Closed	1

Ref. No.	Part Number	Description	Qty.
6	5508073	Nut, Lock, 10-32 Nylock	4
7	5507934	Box, Switch	1
9	9119721	Spade, Female 16-14AWG	4
10	9117401	Switch, Toggle	1
12	9085061	Dial, ON-OFF	1
13	9119071	Grip, Cord	2
14	5628371	Lock Washer, 1/2	1

Exploded View - Vacuum Scoop

A vacuum scoop connects the machine to the vacuum system. The mounting provisions for the scoop are shown in the exploded view below.



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Ref. No.	Part Number	Description	Qty.
1	5053531	Scoop Assembly	1
2	5052471	Adapter, Hose	1
3	5053601	Reducer, 4 x 3 in. (Woodworkers)	1
	5053611	Reducer, 4 x 3 in. (Metal Workers)	1
4	5507534	Clamp, Hose 3 in.	1
5	5507533	Hose, 3 x 5 in.	1
6	9128241	Screw, HH Cap	3
7	9070361	Knob	2

Ref. No.	Part Number	Description	Qty.
8	5053571	Rail	1
9	9032961	Lock Nut, Nylon Insert	4
10	9055411	Washer, Nylon	8
11	5053581	Channel	1
12	9057391	Washer, Flat	2
13	9056411	Nut, Hex Jam	3
14	9062111	Screw, SHCS (5/16-18 X 3/4)	2
15	9146801	Screw, SHCS Low Head (5/16-18 X 1 1/2)	2

Figure 11: Vacuum Scoop Exploded View

Air Cushioned Dead Head Assembly

Refer to Figures 10 and 11. The air-cushioned dead head is for use on very small radius grinding. When connected to a source of shop air (80-90 psi), the belt rides on a cushion of air to decrease head and belt wear. The dead head is easy to use, and adapts to any of the available radius tips.

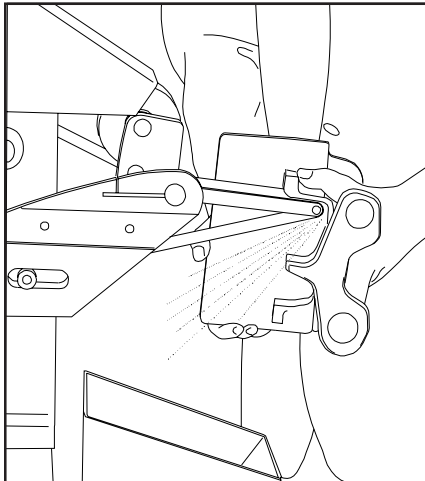
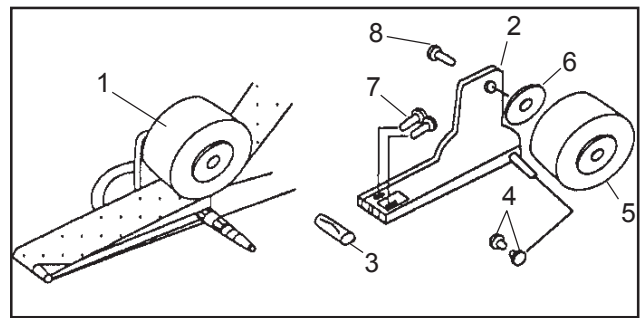


Figure 10: Internal Contouring with Air Cushioned Dead Head



Ref. No.	Part Number	Description	Qty.
1	5044960	Air Cushion Dead Head Assembly (Note 1)	1
2	5044970	Casting, Dead Head	1
3	5044991	Tip, Dead Head, 3/16 R x 2	1
	5045011	Tip, Dead Head, 1/4 R x 2	1
	5045031	Tip, Dead Head, 5/16 R x 2	1
	5045051	Tip, Dead Head, 3/8 R x 2	1
4	5045071	Fitting, Flareless Compression, 1/4 x 1/8	1
5	5044610	Contact Wheel Assembly 3 x 2	1
6	5045101	Spacer	1
7	9062441	Screw, Socket Head Cap 10-32 x 1/2	2
8	9049761	Screw, Socket Head Flare	1

Note 1: Includes 3/8 R x 2 dead head tip 5045051. Other tips available at additional cost.

Install the dead head assembly as follows:

WARNING: DISCONNECT ELECTRICAL POWER TO THE MACHINE BEFORE INSTALLING THE DEAD HEAD ASSEMBLY.

1. Lower tension lever to release belt tension.
2. Loosen clamping screw and remove platen or contact wheel.
3. Insert the shaft of the dead head assembly in head casting. Position dead head assembly with the tip parallel with the machine base. Tighten the clamping screw.
4. Install the belt under the dead head contact wheel and over the dead head tip.
5. Lift the tension lever to tighten the belt.
6. Check belt tracking.
7. Connect pressurized air supply (80-90 psi).
8. Check operation of the dead head assembly.

Figure 11: Air Cushioned Dead Head Assembly Parts Breakdown

Hub and Wheel Assembly

Refer to Figures 12 and 13. The hub and wheel assembly Small Diameter Contact Wheels can be used to adapt a number of other optional attachments for use on the belt grinder. The assembly consists of a pre-balanced hub shaft, collar, and V-belt and a special wrench to enable quick change of the optional attachments.

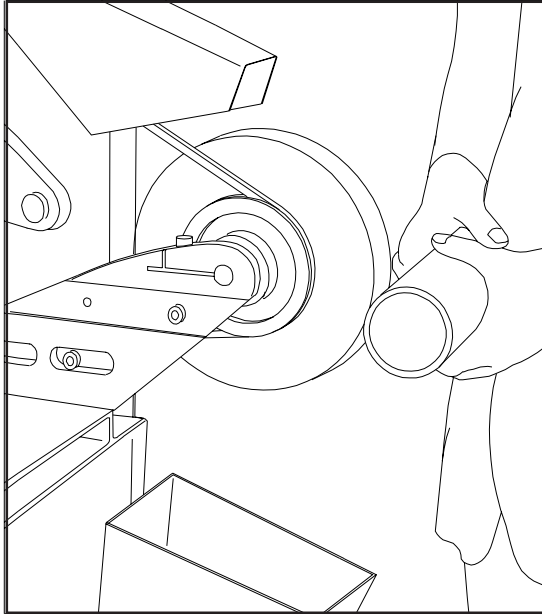
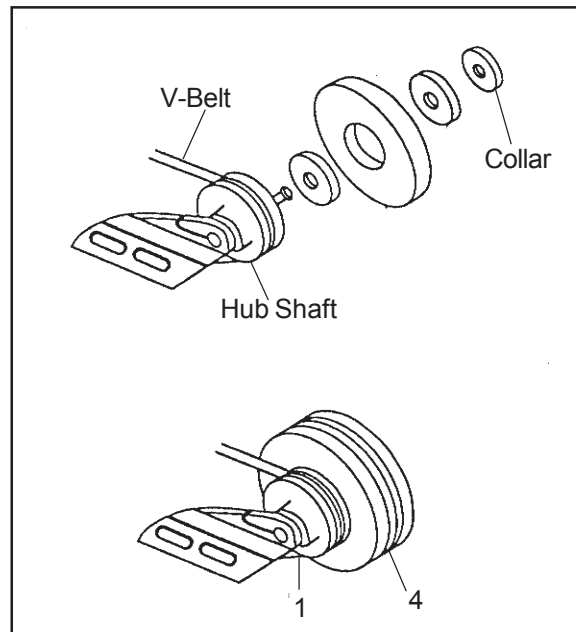


Figure 12: Polishing with Hub and Wheel Assembly



Ref. No.	Part Number	Description	Qty.
1	5054920	Hub and Wheel Assembly (Includes Hub Shaft, V-Belt, Collar, and Special Wrench)	1
2	5045141	Polishing Wheel	1
3	5058071	Spacer Plate	2
4	5044620	Buffer Pad	1

Figure 13: Hub and Wheel Assembly

Install the hub and wheel assembly as follows:

WARNING: DISCONNECT ELECTRICAL POWER TO THE MACHINE BEFORE INSTALLING THE HUB AND WHEEL ASSEMBLY.

1. Lower tension lever to release belt tension.
2. Loosen clamping screw and remove platen or contact wheel.
3. Remove work rest.
3. Insert the shaft of the hub in head casting. Tighten the clamping screw.
4. Install the V-belt around the idler wheel, drive wheel, and wheel of hub and wheel assembly.
5. Raise tension lever to tighten belt.
6. Install polishing wheel or buffing pad as follows:
 - A. Install one spacer plate on threaded shaft.
 - B. Install polishing wheel or buffing pad.
 - C. Install second spacer plate and collar.
 - D. Tighten collar using special wrench.

Small Diameter Contact Wheels

Small diameter contact wheels are useful for grinding or contouring difficult, hard to reach areas (refer to Figure 15). The small diameter contact wheels are available in several sizes. Refer to Figure 14 for a listing of small diameter contact wheels.

Dia. (In.)	Part Number	Description
1/2	5057871	Contact Wheel, 70 Duro
5/8	5057881	Contact Wheel, 70 Duro
3/4	5057891	Contact Wheel, 70 Duro
1	5057901	Contact Wheel, 70 Duro

Figure 14: Small Diameter Contact Wheels.

Assembly of Pedestal

Unpacking

The grinding machine pedestal is shipped separately from the grinding machine. Transport the shipping containers to the installation site before unpacking.

Unpack the pedestal and grinding machine. Locate and open the plastic bag containing four 5/16-18 socket head cap screws. Verify that there are two screws 1-inch long and two screws 1-3/4 inches long (Figure 16, View A).

Securing the Pedestal

WARNING: BOLTING THE PEDESTAL TO THE FLOOR IS STRONGLY RECOMMENDED. THE PEDESTAL IS BOLTED TO THE FLOOR TO ELIMINATE THE POSSIBILITY OF TIP-OVER WHILE THE MACHINE IS BEING OPERATED. FAILURE TO DO SO CAN RESULT IN INJURY TO THE OPERATOR AND/OR OTHER NEARBY PERSONNEL.

The pedestal has four mounting holes in its base. Use these mounting holes to secure the pedestal to the floor before installing the grinder. Shims should be used to level the pedestal before the attaching bolts are tightened.

Assembly

WARNING: THE MACHINE MOUNTING PLATE IS NOT CENTERED ON THE LEG OF THE PEDESTAL. THIS OFFSET EVENLY DISTRIBUTES THE WEIGHT OF THE GRINDING MACHINE.

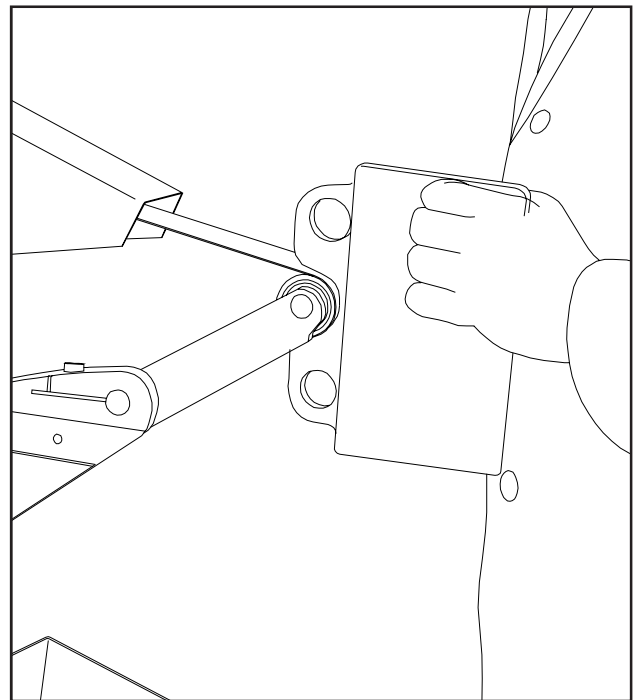


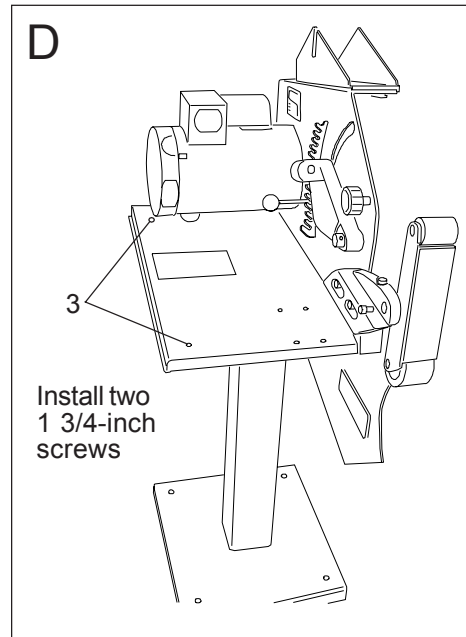
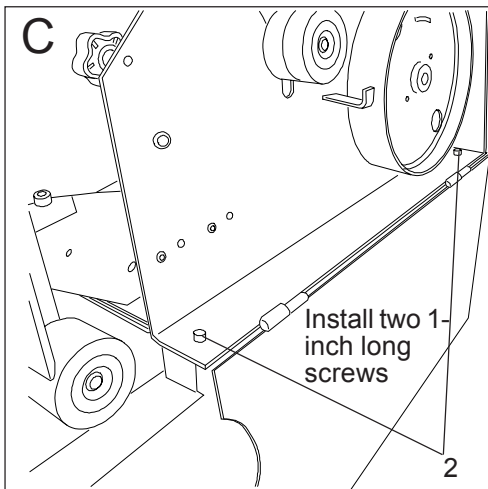
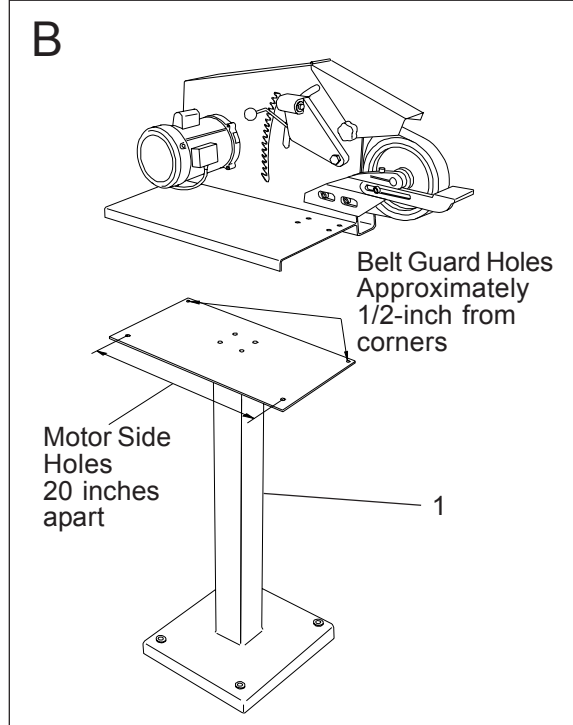
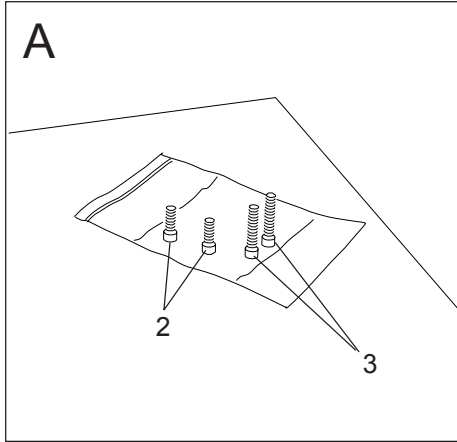
Figure 15: Contouring Using Small Diameter Contact Wheel

MAKE SURE THE GRINDING MACHINE IS CORRECTLY POSITIONED AND SECURED TO THE PEDESTAL BEFORE LEAVING THE MACHINE UNATTENDED. FAILURE TO CORRECTLY POSITION AND SECURE THE MACHINE COULD RESULT IN THE MACHINE TIPPING OVER, CAUSING INJURY TO PERSONNEL.

There are four mounting holes in the mounting plate on the pedestal. The holes on the motor side of the machine are approximately 20 inches apart. The holes on the belt-guard side of the machine are located approximately 1/2-inch from the corners of the plate. When correctly installed, all four screw holes in the machine base plate and belt guard will align with the holes in the mounting plate of the pedestal.

Mounting Procedure

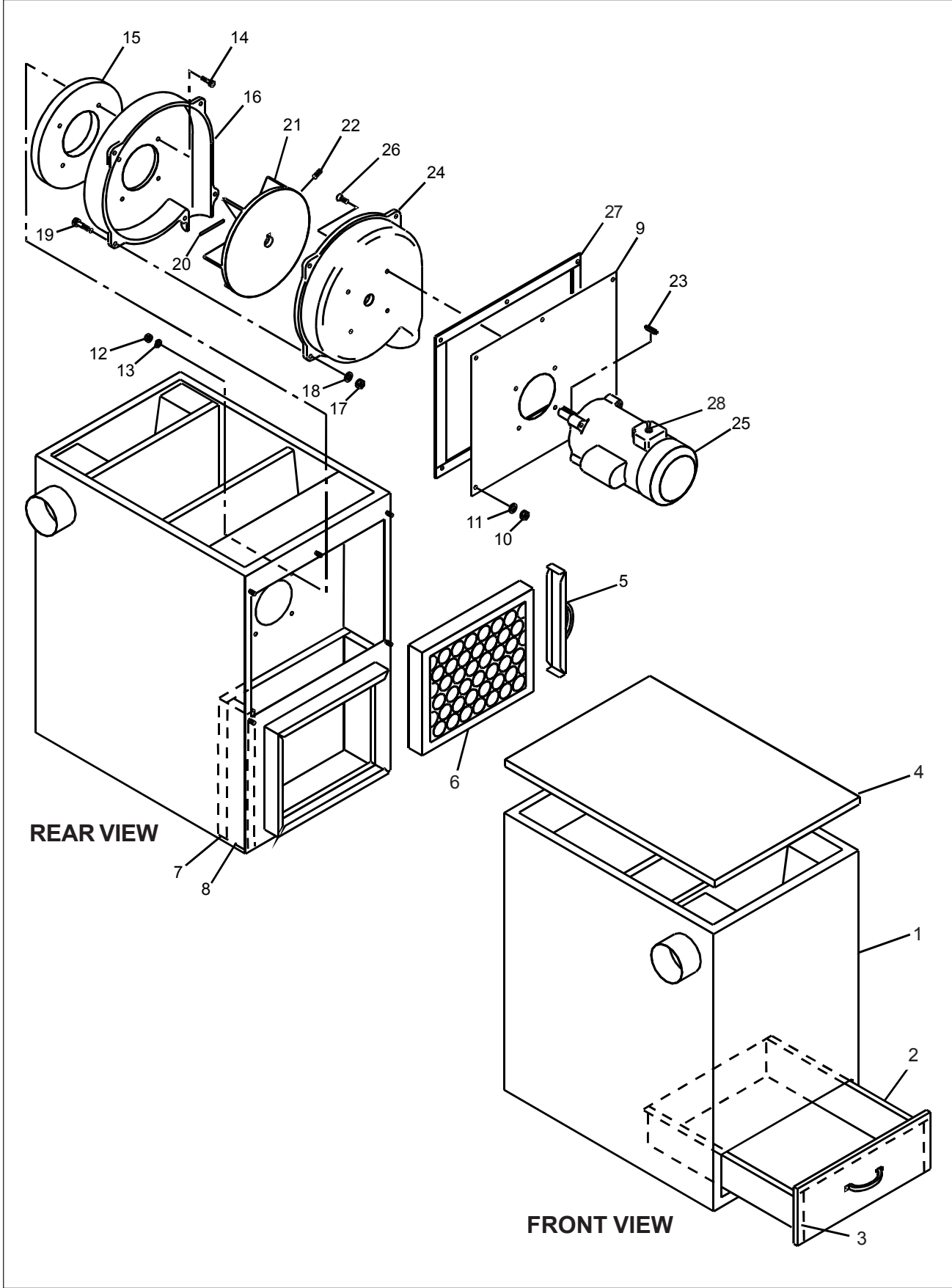
- Using two people or a hoisting device, lift the grinding machine and set it on the pedestal. Align all four screw holes in the machine base plate and belt guard with the holes in the mounting plate of the pedestal (Figure 16, View B).
- Open the grinding belt guard door (Figure 16, View C). Install two 5/16-18 x 1-inch long screws in the base of the grinding belt guard. Install screws finger-tight.
- Install the two 5/16-18 x 1-3/4-inch long screws in the screw holes on the motor side of the machine base (Figure 16, View D). Tighten all four screws.



<u>Ref. No.</u>	<u>Part Number</u>	<u>Description</u>	<u>Qty.</u>
1	5248081	Pedestal	1
2	9062121	Socket Head Cap Screw (5/16-18 x 1)	2
3	5511051	Socket Head Cap Screw (5/16-18 x 1 3/4)	2

Figure 16: Assembly of Grinding Machine and Pedestal

Exploded View – Model 5511885 Dust Collection System



Parts List – Model 5511885 Dust Collection System

Ref. No.	Part Number	Description	Qty	Ref. No.	Part Number	Description	Qty
1	5514731	Base	1	19	5514748	Screw, Hex Head	5
2	5514732	Drawer, Chip		20	5514749	Strap, Guard	1
3	5514733	Seal, Tape (5-feet long)	1	21	5514750	Fan	1
4	5514734	Cover	1	22	5514751	Screw, Set	1
5	5514735	Cover, Filter		23	5514752	Key	1
6	5514779	Filter	1	24	5514753	Housing, Inner Fan	1
7	5514736	Panel, Rear Foam	1	25	5514754	Motor	1
8	5514737	Panel, Side Foam	2	26	5514755	Screw, Hex Head	4
9	5514738	Panel, Motor Support	1	27	5514756	Seal, Tape 5-feet long	1
10	5514739	Nut, Hex	5	28	5514757	Switch, Motor	1
11	5514740	Washer, Lock	5	Connection Kits: Refer to Wilton catalog for appropriate connection kit for your grinding machine or contact Wilton for assistance.			
12	5514741	Nut, Hex	4				
13	5514742	Washer, Lock	4				
14	5514743	Screw, Hex Head	4				
15	5514744	Spacer	1				
16	5514745	Housing, Outer Fan	1				
17	5514746	Nut, Hex	5				
18	5514747	Washer, Lock	5				

Wiring Information - Dust Collection System

