OPERATING INSTRUCTIONS & PARTS MANUAL

3/4 HP, 8″ BENCH GRINDER

MODEL 1Z707W
(ALSO USED FOR MODELS 1Z707U AND 1Z707V)

FORM 5S1065
03521
0390/101/1M

READ CAREFULLY BEFORE ATTEMPTING TO ASSEMBLE, INSTALL, OPERATE OR MAINTAIN THE PRODUCT DESCRIBED. PROTECT YOURSELF AND OTHERS BY OBSERVING ALL SAFETY INFORMATION. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE! RETAIN INSTRUCTIONS FOR FUTURE REFERENCE.

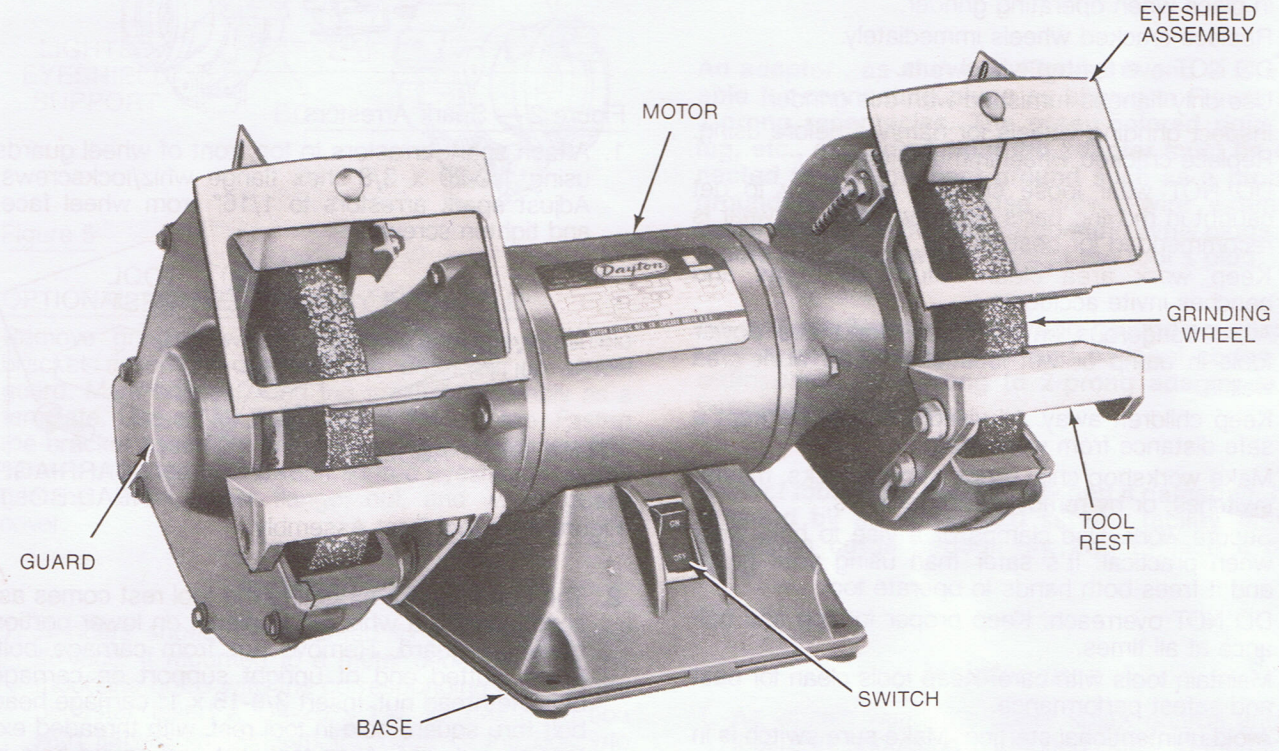


Figure 1 — Dayton Bench Grinder Nomenclature

Description

The 3/4 HP, Dayton 8″ bench grinder is built to quality standards. The grinder is equipped with a totally enclosed ball bearing motor. Rotor and shaft assembly is dynamically balanced for smooth operation. The motor housing is compact, so long pieces of work can press against either wheel, without touching motor frame. Ample side clearance is provided on wheels. Threaded shafts secure the grinding wheels. Wheel guards are removable. Two-way tool rests are adjustable for wheel wear and angle grinding. Grinder comes complete with spark arrestors and safety eye shields.

Specifications

Motor	3/4 HP, 3450 RPM, 115 Volt, 1 Ph., 60 Hz., Totally Enclosed
Circuit requirements	15 Amps min.
Wheels	8″ Dia., 1″ face, 5/8″bore Vitrified. One 36 (coarse) grit, and one 60 (med.) grit. 17⅜″ Center to center distance between wheels.
Approvals	UL and CSA Wheels conform to ANSI standards. Meets OSHA requirements.

General Safety Information

1. DO NOT operate grinder unless safety eyeshields and guards are properly mounted. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses. (Ne jamais utiliser sans pare-etincelles et lunette de protection.)
2. Always disconnect power supply when handling, moving or assembling the grinder.
3. Do not grind on side of wheel.
4. DO NOT force work against grinding wheel. Excessive pressure may cause damage or breakage of the grinding wheel, resulting in injury to the operator or bystander.
5. Always have wheel guard cover securely fastened in place when operating grinder.
6. Replace cracked wheels immediately.
7. DO NOT overtighten wheel nuts.
8. Use only flanges furnished with this grinder.
9. Inspect grinding wheels for damage before using. Replace cracked wheel immediately.
10. DO NOT wear loose clothing or jewelry to get caught in moving parts. Rubber soled footwear is recommended for best footing.
11. Keep work area clean. Cluttered areas and benches invite accidents.
12. Avoid dangerous environment. Don't use power tools in damp or wet locations. Keep work area well lit.
13. Keep children away. All visitors should be kept a safe distance from work area.
14. Make workshop child proof with padlocks, master switches, or by removing starter keys.
15. Secure work. Use clamps or a vise to hold work when practical. It's safer than using your hand, and it frees both hands to operate tool.
16. DO NOT overreach. Keep proper footing and balance at all times.
17. Maintain tools with care. Keep tools clean for best and safest performance.
18. Avoid unintentional starting. Make sure switch is in OFF position, before plugging in.
19. Never stand on tool. Serious injury could occur if the tool is tipped, or if the cutting tool is unintentionally contacted.
20. Check damaged parts. Before further use of the tool, a guard or other part that is damaged should be carefully checked, to ensure that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
21. Direction of feed. Feed work into a wheel or cutter against the direction of rotation of the wheel or cutter only.
22. Adjust distance between wheel and work rest to maintain 1/2 inch or less separation, as the diameter of the wheel decreases with use.
23. Do not expose to rain or use in damp locations. (Ne pas exposer a la pluie et ne pas utilser dans les emplacemenis humides).
24. Never leave tool running unattended. Turn power OFF.
25. Do not operate tool when you are tired.
26. Remove adjusting key and wrenches before turning ON.
27. Keep guards in place and in working order.

Assembly

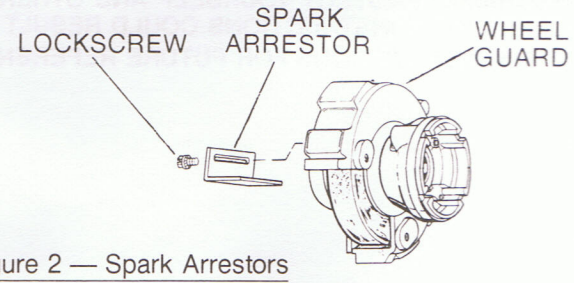


Figure 2 — Spark Arrestors

1. Attach spark arrestors to top front of wheel guards using 1/2-20 x 3/8" hex flange whiz/lockscrews. Adjust spark arrestors to 1/16" from wheel face, and tighten screws.

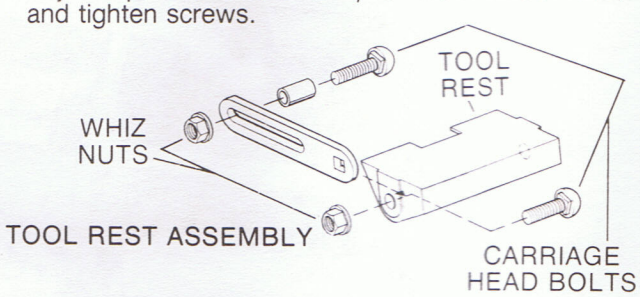


Figure 3 — Tool Rest Assembly

2. The bolt used for mounting the tool rest comes assembled with a whiz nut in place, on lower portion of wheel guard. Remove nut from carriage bolt. Place slotted end of upright support on carriage bolt. Rethread nut. Insert 3/8-16 x 1" carriage head bolt thru square hole in tool rest, with threaded extension outward. Align tool rest with round hole in upright support, and extend carriage bolt thru it. Fasten tool rest securely with 3/8"-16 whiz nut and once desired location is achieved. Adjust distance between wheel and work rest to maintain 1/8 inch or less separation, as the diameter of the wheel decreases with use.

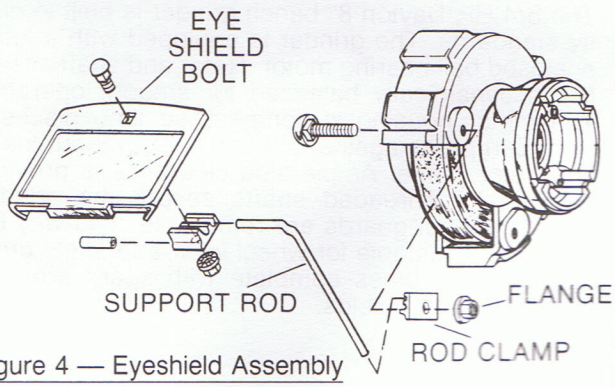


Figure 4 — Eyeshield Assembly

Assembly (Continued)

3. The bolt used for mounting the eyeshield comes assembled with a nut in place on the upper portion of the wheel guard. Remove the nut from the carriage bolt, and insert clamp on the bolt. Thread the nut loosely onto the bolt. Insert L-rod under clamp in the top notch. Slide glass eyeshield with its attached clamp onto the short leg of the L-rod. Tighten the nuts on the clamps just enough to maintain the desired eyeshield location.

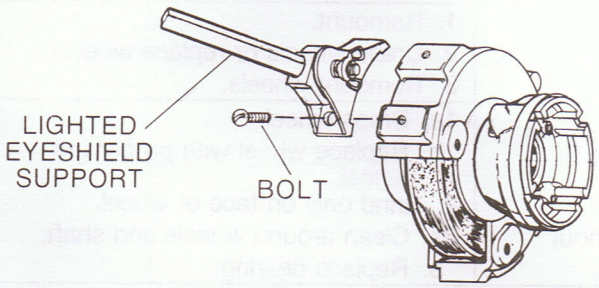


Figure 5

OPTIONAL LIGHTED STANLEY EYESHIELD

Remove grinding wheel. Position Stanley eyeshield bracket assembly over bosses provided on wheel guard. Mark bosses using the bracket assembly as a template. Use a No. 7 drill and a 1/4″-20 tap. Fasten the bracket assembly to the wheel guard with the two screws provided with 6X854 lighted eyeshields. Install grinding wheel, outer flange, nut, and wheel guard cover.

Installation

1. Grinders should be mounted to a solid horizontal surface. If mounted to a metal pedestal, align the mounting holes with the corresponding holes in the pedestal. Insert a 1/4-20 x 1¼″ lg. hex head bolt with flatwasher beneath the head of the bolt into each mounting hole, from the top. From the bottom of the pedestal place a 1/4″ flatwasher and 1/4″-20 hex head nut onto the end of the bolt. Tighten only until the space between the grinder base and the pedestal is 1/8″. Using a second nut on each bolt, jam tighten against the first, to prevent loosening by vibration.
2. To mount your grinder to wooden bench top, use 1/4″ dia. wood screws, 1-1/4″ large with flatwasher beneath the heads. Tighten screws until the space between the grinder base and the pedestal is 1/8″.

WARNING: THIS TOOL SHOULD BE GROUNDED WHILE IN USE, TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK. Grinder is equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding type receptacle. The green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal. Your grinder is for use on 115 volts, and has plug that is as shown in Figure A.

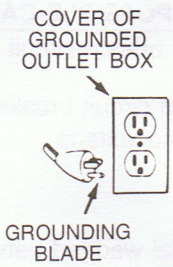


FIGURE A

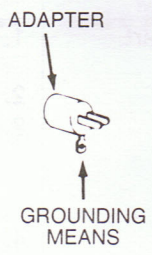


FIGURE B

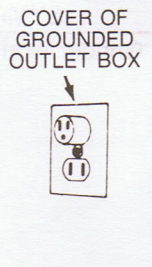


FIGURE C

GROUNDING METHODS

An adapter , as shown in Figures B and C is available for connecting plugs as shown in Figure A to 2-prong receptacles. The green-colored rigid ear, lug, etc., extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box. Use only 3-wire extension cords that have 3-prong grounding type plugs and 3-pole receptacles that accept the tool's plug.

Do not use 3-prong to 2-prong grounding adapter, unless permitted by local and national codes and ordinances. (A 3-prong to 2-prong adapter is not permitted in Canada.)

Inspect tool cords periodically and if damaged, have repaired by an authorized service facility. Inspect extension cords periodically, and replace if damaged.

Maintenance

1. As wheels wear, the upper spark guards and the tool rests should be positioned closer to the face of the wheels. Spacing should be as close to wheels as possible without striking them. Gap should be not greater than 1/8″. When wheels are worn to the extent that the 1/8″ maximum gap cannot be maintained, they should be replaced.
2. Replacement wheels should have maximum rated speed of at least 3600 RPM. Maximum wheel diameter is 8″. (Employer une meule pour 3600 tours/min).
3. To loosen nuts holding wheels, push a wood wedge between the tool rest and the wheel to keep the shaft from turning. The threads on the right side of the grinder (facing unit) are right-hand; threads on the left side are left-hand. Tighten nuts securely before operating the grinder.
4. For best cutting efficiency, wheels should be dressed periodically, especially if they have become clogged from grinding soft metals. Dayton grinding wheels dresser, No. 2X951 is recommended.

Troubleshooting Chart

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Grinder won't start.	1. Blown branch circuit fuse.	1. If fuse is blown, replace with fuse of proper size.
	2. Tripped circuit breaker.	2. Reset circuit breaker.
	3. Low line voltage.	3. If voltage under recommended minimum, check size of wiring from main switch on property. If OK, contact power company.
	4. Material wedged between wheel and guard.	4. Remove material that may be wedged between wheel and guard.
	5. Defective switch.	5. Replace.
	6. Defective motor.	6. Replace.
Excessive vibration.	1. Improper mounting.	1. Remount.
	2. Grinding wheel out of balance.	2. Dress wheels or replace wheels.
	3. Improper wheel mounting.	3. Remount wheels.
Motor heating.	1. Excess pressure required to grind material.	1a. Dress wheel. b. Replace wheel with proper grit wheel.
	2. Grinding on side of wheel.	2. Grind only on face of wheel.
	3. Motor not turning freely (without power).	3a. Clean around wheels and shaft. b. Replace bearing.
Blowing fuses, or tripping circuit breaker.	1. Overloading due to binding.	1a. Clean around wheels and shaft. b. Replace bearing.
	2. Defective plug.	2. Replace plug.
	3. Defective cord.	3. Replace cord.
	4. Defective switch.	4. Replace switch.
	5. Faulty internal wiring.	5. Contact authorized Dayton Service Center.

LIMITED WARRANTY

DAYTON ONE-YEAR LIMITED WARRANTY. Bench grinder, Model 1Z707W is warranted by Dayton Electric Mfg. Co. (Dayton) to the original user against defects in workmanship or materials under normal use for one year after date of purchase. Any part which is determined by Dayton to be defective in material or workmanship and returned to an authorized service location, as Dayton designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced at Dayton's option. For limited warranty claim procedures, see PROMPT DISPOSITION below. This limited warranty gives purchasers specified legal rights which vary from state to state.

LIMITATION OF LIABILITY. To the extent allowable under applicable law, Dayton's liability for consequential and incidental damages is expressly disclaimed. Dayton's liability in all events is limited to, and shall not exceed, the purchase price paid.

WARRANTY DISCLAIMER. Dayton has made a diligent effort to illustrate and describe the product in this literature accurately; however, such illustrations and descriptions are for the sole purpose of identification, and do not express or imply a warranty that the product is merchantable, or fits a particular purpose, or that the product will necessarily conform to the illustrations or descriptions.

Except as provided below, no warranty or affirmation of fact, expressed or implied, other than as stated in "LIMITED WARRANTY" above is made or authorized by Dayton.

PRODUCT SUITABILITY. Many states and localities have codes and regulations governing sales, construction, installation, and/or use of products for certain purposes, which may vary from those in neighboring areas. While Dayton attempts to assure that its products comply with such codes, it cannot guarantee compliance, and cannot be responsible for how the product is installed or used. Before purchase and use of a product, please review the product application, and national and local codes and regulations, and be sure that the product, installation, and use will comply with them.

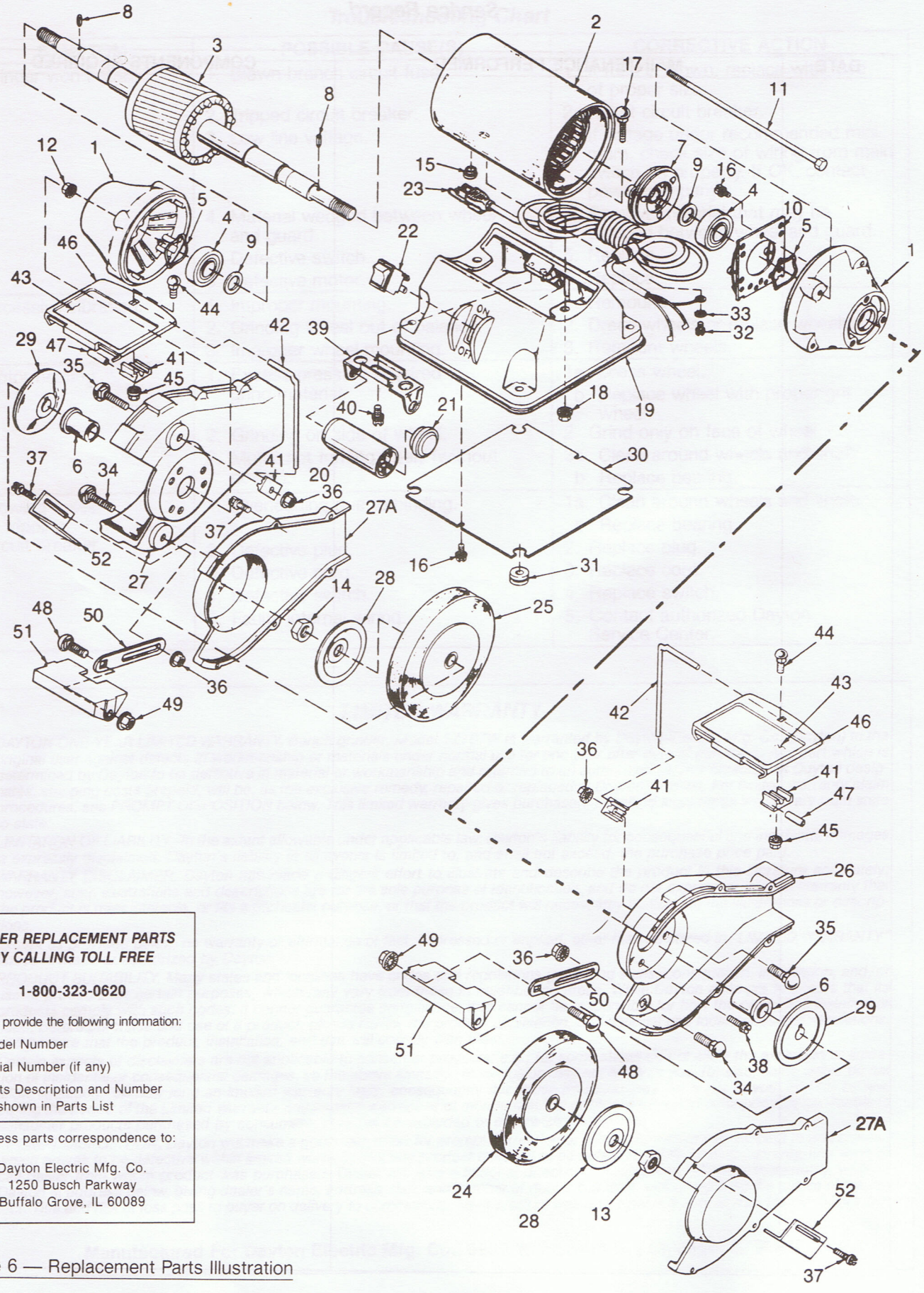
Certain aspects of disclaimers are not applicable to consumer products; e.g., (a) some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you; (b) also, some states do not allow limitations on how long an implied warranty lasts, consequently the above limitation may not apply to you; and (c) by law, during the period of the Limited Warranty, any implied warranties of merchantability or fitness for a particular purpose applicable to consumer products purchased by consumers, may not be excluded or otherwise disclaimed.

PROMPT DISPOSITION. Dayton will make a good faith effort for prompt correction or other adjustment with respect to any product which proves to be defective within limited warranty. For any product believed to be defective within limited warranty, first write or call dealer from whom product was purchased. Dealer will give additional directions. If unable to resolve satisfactorily, write to Dayton at address below, giving dealer's name, address, date and number of dealer's invoice, and describing the nature of the defect. Title and risk of loss pass to buyer on delivery to common carrier. If product was damaged in transit to you, file claim with carrier.

Manufactured For Dayton Electric Mfg. Co., 5959 W. Howard St., Chicago, IL 60648

Service Record

DATE	MAINTENANCE PERFORMED	COMPONENTS REQUIRED



ORDER REPLACEMENT PARTS BY CALLING TOLL FREE

1-800-323-0620

Please provide the following information:

- Model Number
- Serial Number (if any)
- Parts Description and Number as shown in Parts List

Address parts correspondence to:

Dayton Electric Mfg. Co.
1250 Busch Parkway
Buffalo Grove, IL 60089

Figure 6 — Replacement Parts Illustration

Replacement Parts List

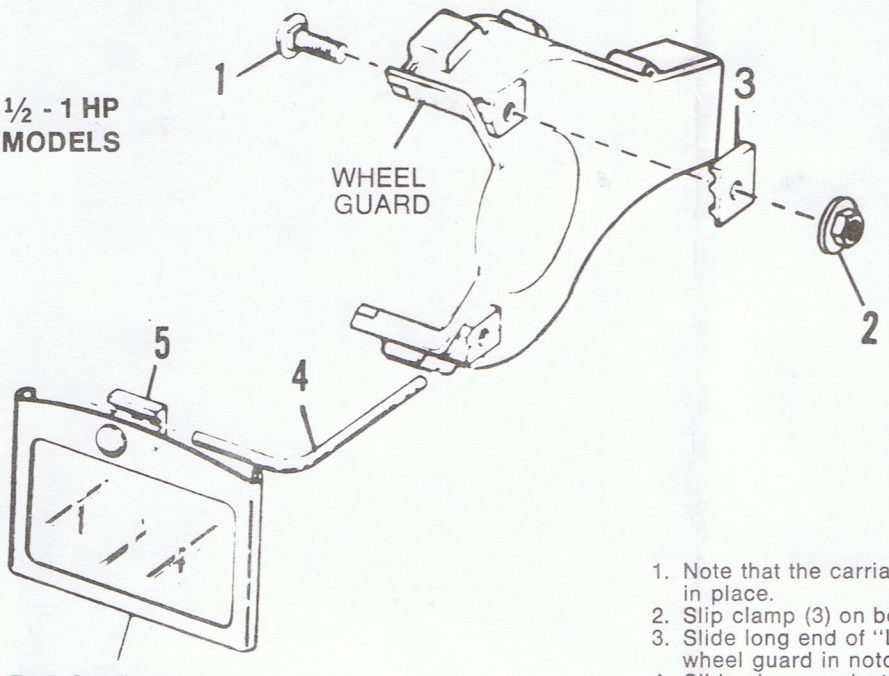
REF NO.	DESCRIPTION	PART NO.	QTY.
1	Endshield	07C022380401	2
2	Wound stator and frame assembly	@	1
3	Rotor and shaft assembly	@	1
4	Bearing	IL017	2
5	Spring	22A022920200	2
6	Wheel flange spacer	28A088240100	2
7	Rotary switch	17A025110200	1
8	Roll pin	24A115360400	2
9	Spacer	28A056220300	2
10	Stationary switch	93A114700200	1
11	Thru bolt, 10-32 x 10⅛″ long	19A012543500	4
12	Whiz nut, 10-32	*	4
13	Hex nut, 5/8″-18 RH	24A100350600	1
14	Hex nut, 5/8″-18 LH	24A100350700	1
15	Strain relief bushing	29A097181900	1
16	Self-tapping screw, 8-32 x 3/8″	**	4
17	Carriage bolt, 5/16-18 x 1″	*	2
18	Flanged nut, 5/16″-18	*	2
19	Base	93D400920000	1
20	Capacitor	15A021310600	1
21	Capacitor cap	29A099020200	1
22	ON/OFF switch	93A118283012	1
23	Cord assembly, 16-3 SJT	93A119241002	1
24	Grinding wheel, 36 Grit	5X599	1
25	Grinding wheel, 60 Grit	5X598	1
26	Wheel guard, RH	93D401103000	1
27	Wheel guard, LH	93D401103000	1
27A	Wheel guard cover	93C305485001	2
28	Wheel flange, outer	28A006140100	2
29	Wheel flange, inner	08A005870002	2
30	Base cover	28B047740100	1
31	Base bumper	29A100530100	4
32	Ground screw, 8-32 x 1/4″	*	1
33	External tooth lockwasher, 8-32	*	1
34	Carriage bolt, 5/16-18 x 1¼″	*	2
35	Carriage bolt, 5/16-18 x 1⅜″	*	2
36	Flanged nut, 5/16″-18	*	4
37	Self-tapping screw, 1/4-20 x 7/8″	**	12
38	Machine screw, 5/16-18 x 3/4″	*	6
39	Capacitor bracket	28A099010100	1
40	Self-tapping screw, 10-32 x 1/2″	1	
41	▲ Rod clamp	93A122828001	4
42	▲ Support rod	28A087700100	2
43	▲ Glass	29A008320100	2
44	▲ Carriage bolt, 1/4-20 x 3/4″	*	2
45	▲ Flanged nut, 1/4″-20	*	2
46	▲ Frame	28A006790100	2
47	▲ Rubber tube	93A122832001	2
48	● Carriage bolt, 3/8-16 x 1″	*	2
49	● Flanged nut, 3/8″-16	*	2
50	● Upright	93A117940001	2
51	● Tool rest	93B207896001	2
52	● Spark guard	93A120989001	2

(*) Standard hardware item, available locally.
(**)Must use lockwasher under head.
(@) Stator and rotor not available as a replacement part.
(▲) Model 4X868, complete set of eyeshields (includes 4 each of Ref. No. 41 and 2 each of Ref. Nos. 42 thru 47).
(●) Part No. 93A121276001, tool rest package (includes 2 each of Ref. Nos. 48 thru 52).
Note: Old type switch No. 93A118283004 has four prongs.

Notes

INSTALLATION OF EYE SHIELDS

½ - 1 HP MODELS



1. Note that the carriage bolt (1) and nut (2) are already in place.
2. Slip clamp (3) on bolt and then thread on nut (2).
3. Slide long end of "L" shaped rod (4) between clamp and wheel guard in notch provided, and tighten nut (2).
4. Slide glass or plastic eye shield with its attached clamp (5) onto short end of "L" shaped rod (4) and tighten nut on clamp with just enough friction so that eye shield will stay in place at desired angle. Note rubber tube is inserted in clamp (5) at eyeshield to enable positioning of eyeshield.

¼ & ⅓ HP MODELS