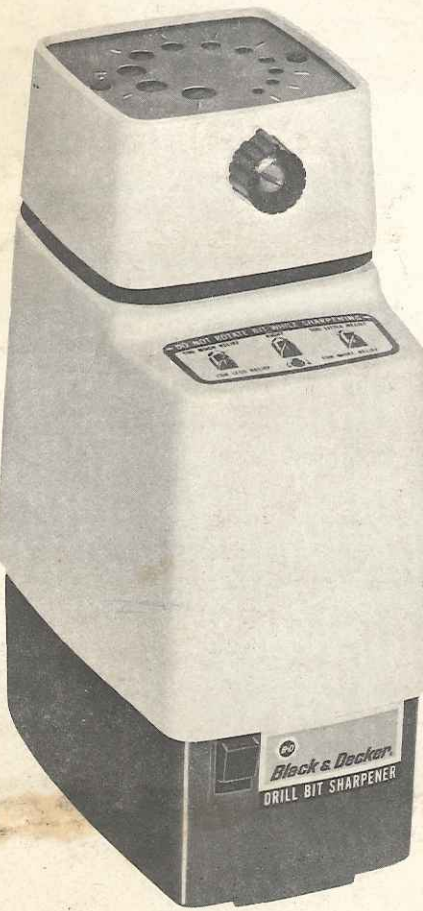




Black & Decker

OWNER'S MANUAL



Your Black & Decker Drill Bit Sharpener will save you time and money by extending the useful life of your bits. You can buy high quality bits and keep them much longer. With a little practice, you will be able to quickly sharpen your drill bits to the proper shape and angle, which will help you to make holes of the right size and roundness, located where you want them. You can drill holes faster, using less power. **Note:** Do not attempt to sharpen Carbide-Tipped Bits with this tool.

Please read all of the instructions carefully before operating the Sharpener, and for your own protection, pay close attention to the Safety Rules! Don't forget to send in the guarantee registration card. **THANK YOU** for buying **BLACK & DECKER!**

DOUBLE INSULATED DRILL BIT SHARPENER

GUARANTEE

Black & Decker guarantees, for one year from date of purchase, to correct by repair or parts replacement without charge any defect due to faulty material or workmanship. Simply return the complete unit, transportation prepaid, to any Black & Decker Service Center or Authorized Service Station. Naturally, we assume no responsibility for damage caused by misuse, careless handling or where repairs have been made or attempted by others. No other guarantee, written or verbal, is authorized by us.

IMPORTANT!

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment should be performed by BLACK & DECKER Service Centers or other qualified service organizations, always using BLACK & DECKER replacement parts. When servicing Double-Insulated Tools, it is extremely important that ONLY IDENTICAL REPLACEMENT PARTS BE USED and that REASSEMBLY OF TOOL IS IDENTICAL TO THE ORIGINAL ASSEMBLY.

See Tools-Electric
—Yellow Pages—
for Service & Sales



FACTORY SALES & SERVICE CENTERS

	Area Code	Telephone No.		Area Code	Telephone No.
ALABAMA: Birmingham 35233, 1717 Third Ave., South	205	324-6691	NEBRASKA: Omaha 68102, 2218 Leavenworth Street	402	345-2330
ARIZONA: Phoenix 85004, 537 E. McDowell Rd.	602	AL-1332	NEW JERSEY: Newark 07104, 868 Broadway	201	HU 3-1076
ARKANSAS: Little Rock, 72201, 519 West Seventh Street	501	FR 2-3040	NEW MEXICO: Albuquerque 87110, 4700 Lomas Blvd., N.E.	505	265-6401
CALIFORNIA: Anaheim 92802, 1235 So. Euclid Ave.	714	772-4050	NEW YORK: Buffalo 14209, 881 W. Delaware Ave.	716	TT 4-6220
Los Angeles 90007, 2432 S. Broadway	213	352-3731	New York 10462, 1694 E. Tremont Avenue (Bronx)	212	SY 2-2700
Oakland 94608, 1107 E. 14th St.	415	TE 4-5944	New York 10014, 227 Varick St. (Manhattan)	212	WA 9-6450
Sacramento 95814, 1915 Seventeenth Street	916	444-3188	New York 11377, 56-15 Queens Blvd. (Woodside)	212	DE 5-1042
San Diego 92105, 3811 El Cajon Blvd.	619	280-3331	Rochester 14620, 476 Clinton Ave. S.	716	454-3814
San Francisco 94080, 1139 Airport Blvd.	415	871-7278	Syracuse 13224, 2140 Erie Blvd. E.	315	446-3086
Santa Clara 95050, 2291 The Alameda	408	241-9162	NORTH CAROLINA: Charlotte 28206, 1710 N. Graham St.	704	FR 5-3721
Van Nuys 91401, 14920 Victory Blvd.	213	787-5531	Fayetteville 28306, P.O. Box 4305, Highway 301, S.	919	425-1181
COLORADO: Denver 80204, 675 Kalamath St.	303	222-6621	Greensboro 27403, 1008 W. Lee Street	919	275-0906
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FLORIDA: Jacksonville 32208, 5224 Pearl Street	904	356-2951	Solon 44139, 6225 Cochran Road	216	CH 8-5330
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Chicago 60643, Beverly Hills, 10708 S. Western Ave.	312	BE 3-8832	Pittsburgh 15232, 5437 Baum Blvd.	412	362-2700
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THE BLACK & DECKER MFG. CO., TOWSON, MD. 21204, U.S.A.

Form No. 97976-02

(B11-PS) Printed in U.S.A.

Safety Features & Safety Instructions

1. The full length cover of the sharpener head is designed to protect you in case a drill bit breaks or foreign matter jams the machine.
2. If the wheel becomes jammed, or if the wheel or a bit breaks, immediately release the ON-OFF switch. **UNPLUG TOOL!** Follow the instructions for disassembling the sharpening head (page 3) to inspect the grinding wheel for damage, or for any other cause of jamming.
3. Your sharpener is **DOUBLE INSULATED** to give you **MAXIMUM SAFETY** from shock. This means the electrical parts are protected by two separate insulating systems that make it unnecessary to "GROUND" the tool. Therefore, your unit has a two-prong plug—no grounding wire is provided.
4. When servicing **DOUBLE INSULATED** tools, it is extremely important that only identical replacement parts be used and that reassembly of tool is identical to the original assembly.
5. To assure product **SAFETY AND RELIABILITY**, any repairs (other than wheel replacement) should be performed only at a Black & Decker Service Center.
6. **DRILL BITS MUST BE SHARPENED DRY. DO NOT USE WATER OR ANY OTHER COOLANT!**

Safety Rules for Stationary Power Tools

1. **Keep Work Area Clean.** Cluttered areas and benches invite accidents.
2. **Avoid Dangerous Environment.** Don't use power tools in damp or wet locations. Keep work area well lit.
3. **Keep Children Away.** All visitors should be kept safe distance from work area.
4. **Make Workshop Kid Proof**—with padlocks, master switches, or by removing starter keys.
5. **Don't Force Tool.** It will do the job better and safer at the rate for which it was designed.
6. **Use Right Tool.** Don't force tool or attachment to do a job it was not designed for.
7. **Wear Proper Apparel.** No loose clothing or jewelry to get caught in moving parts. Rubber-soled footwear is recommended for best footing.
8. **Use Safety Glasses.** Also use face or dust mask if cutting operation is dusty.
9. **Don't Overreach.** Keep proper footing and balance at all times.
10. **Disconnect Tools** before servicing; when changing accessories such as blades, bits, cutters, etc.
11. **Avoid Accidental Starting.** Make sure switch is in "Off" position before plugging in.

Sharpening Drill Bits

A properly sharpened bit is one in which there is a good cutting edge and with the point in the center of the bit. Cutting relief (clearance) prevents the back edge of the bit (edge "B" of Figure 1) from "dragging" when cutting the hole. Edge "A" is the sharp, leading edge which actually does the cutting. If reverse relief (edge "B" higher than edge "A") is put on the bit, the sharp edge cannot contact the work and the bit will not cut. The adjusting knob on the sharpener head changes the position of the bit inside the sharpener and enables you to control bit cutting relief as follows:

1. Turn the knob in a clockwise direction to increase the angle of cutting relief.
2. Turn the knob in a counterclockwise direction to decrease cutting relief.

For small size bits move the knob only slightly in either direction. For larger size bits move it a little more.

If the point of the bit is not in the center, the bit will drill oversized holes which may not be exactly located where intended. The bit will tend to "WALK" or drill holes which are not round. You can control point position by the length of time the motor is left "ON" and how hard you push down on the bit when sharpening. **STEP BY STEP OPERATING INSTRUCTIONS ARE ON THE NEXT PAGE.**

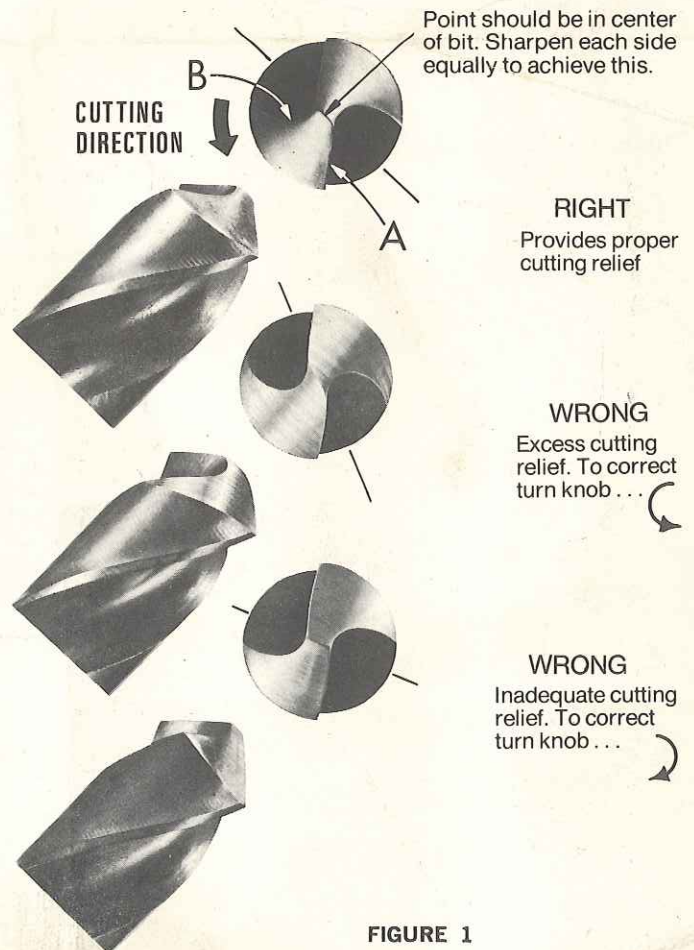


FIGURE 1

Operation **Wear Safety Glasses or Other Eye Protection**

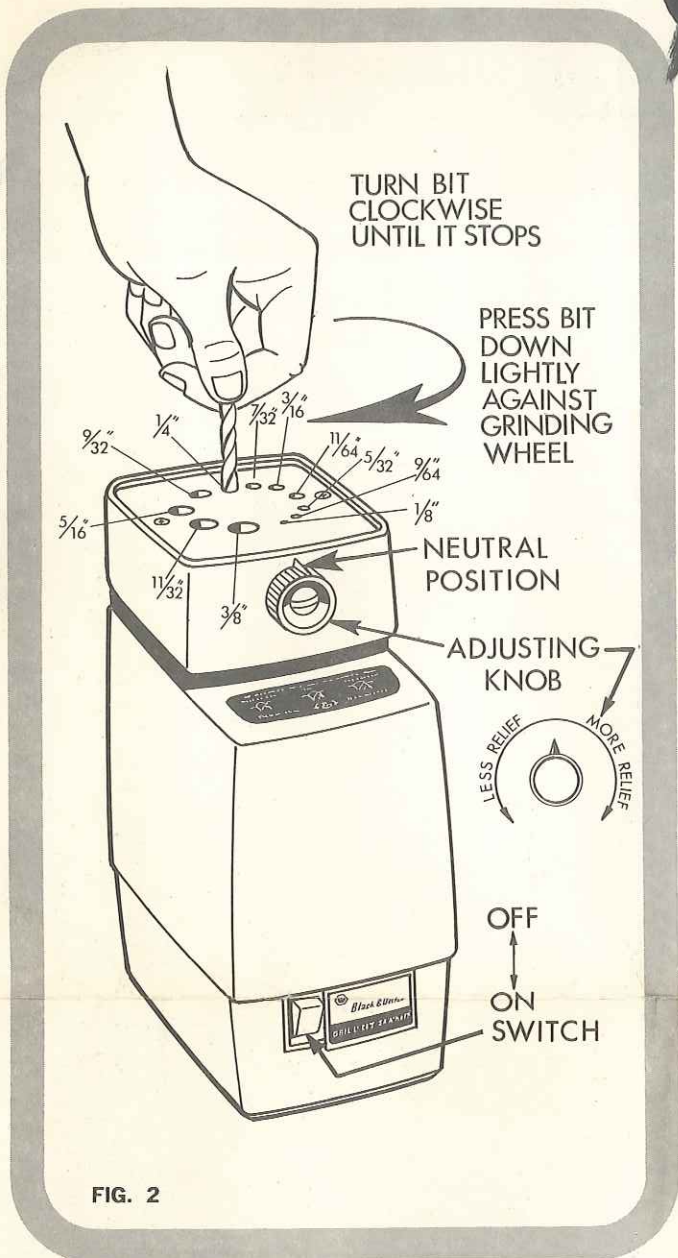


FIG. 2

1. Set knob with pointer vertical, in neutral position.
2. Insert the bit in the smallest hole in the index head into which it will fit.
3. Rotate bit clockwise until rotation is stopped, see Figure 2, hold it steady in this position.
4. Push drill bit down and hold it against grinding wheel with medium-light (about 1/2 pound pressure). **DO NOT ROTATE BIT WHEN SHARPENING!**
5. Sharpening time for each edge of the bit will range from about one to three seconds, depending upon the size of the bit. The smaller the bit, the quicker it will sharpen! Try to keep the sharpening time equal on both edges of the bit. Now push switch button down to turn motor "ON" for one (1), two (2), or three (3) seconds. Release switch button to turn motor "OFF", still holding bit against wheel. (The switch button is normally in the "OFF" position. It must be pushed down and held there to turn the motor "ON". Releasing the switch button turns the motor "OFF" instantly, but the grinding wheel will continue to rotate for a few seconds).
6. After wheel rotation has stopped, withdraw bit and rotate it 1/2 turn (180°). **This is very important**, and can be done easily by placing a mark (with chalk or a grease pencil) on the first side of the bit near the mark in the top plate of the sharpener. Sharpen again as in step 5.
7. Sharpen each side equally to center point of bit.
8. Examine bit for proper form, see Figure 3. Point must be in the center and bit must have proper cutting relief.
9. If bit is not to proper form, turn the adjusting knob slightly as shown in Figure 3 and repeat the sharpening process.
10. Try drilling with bit to be sure it cuts properly.
11. If you are sharpening a group of bits, do not be concerned if the sharpener head gradually becomes quite warm.

Point should be in center of bit. Sharpen each side equally to achieve this.

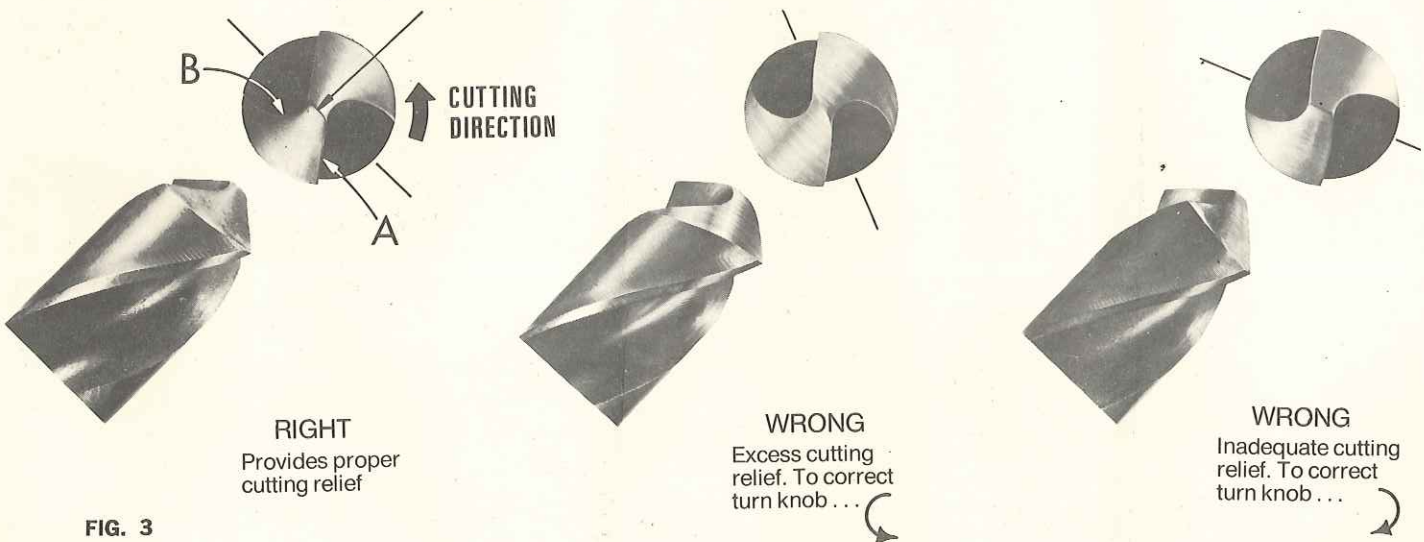


FIG. 3

Changing Grinding Wheel

If sharpened bit shows signs of surface unevenness (grooves or ridges), or a proper cutting angle cannot be ground, the grinding wheel should be replaced.

DISASSEMBLY

1. Unplug the unit from the electrical outlet.
2. Remove two screws, No. 1 (See Figure 4).
3. Remove index plate (No. 2) exposing four screws (one in each corner). Remove these screws.
4. Lift head (No. 11) from sharpener motor unit.
5. Lay head on its side exposing spindle (No. 4) and nut (No. 5). Insert screwdriver blade into spindle slot to keep spindle from turning, and using a wrench (11/16") remove the retaining nut (No. 5).
6. Remove washer (No. 6), grinding wheel (No. 7), drive washer (No. 8), felt washer (No. 9), and spindle (No. 4) from unit.
7. The spindle (No. 4) and spindle hole (No. 10) should be wiped clean of all grinding grit. Any grit accumulation should be removed from inside the lower part of the head and especially the bearing hole. Wipe grit from top of motor housing but do not loosen the rubber seal around the outside edge or attempt to remove the circular felt seal.
8. At this time, examine grinding wheel for cracks and make sure paper blotters (No. 12) on both sides of wheel are in place. (Blotters on a grinding wheel are necessary to prevent cracking the wheel when it is tightened on the spindle). **BE SURE** to replace a grinding wheel that is worn or damaged.

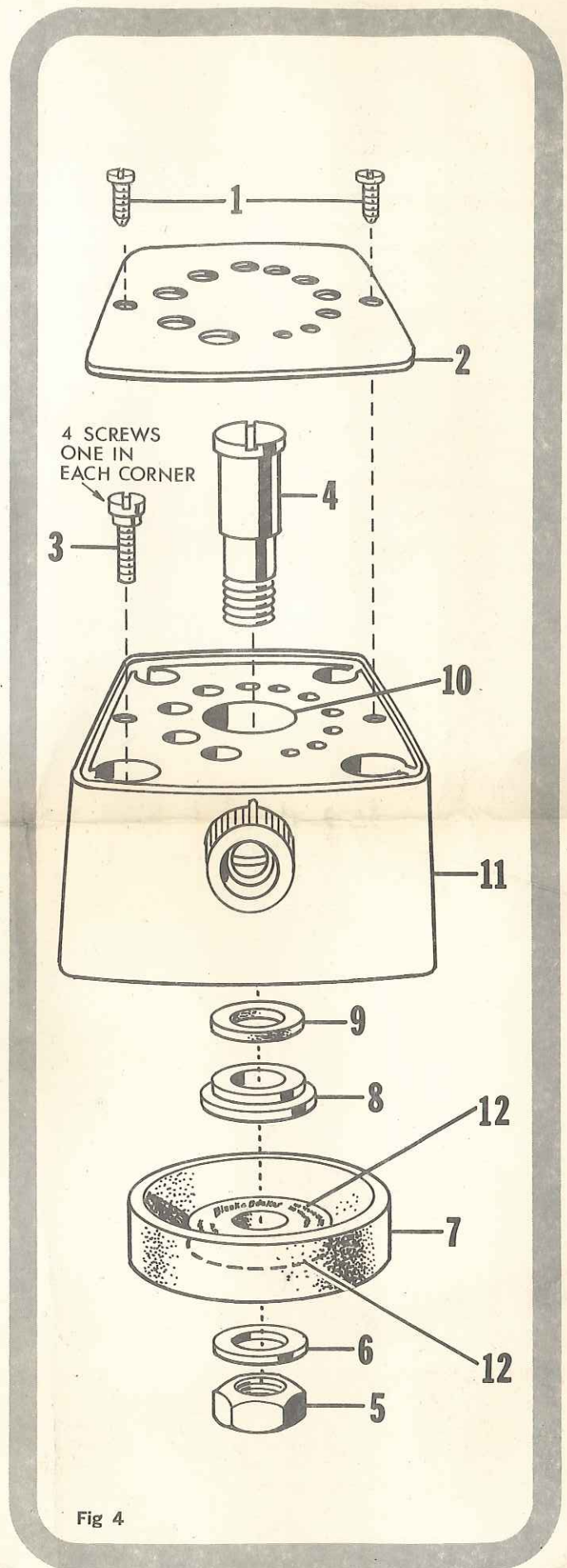
ASSEMBLY

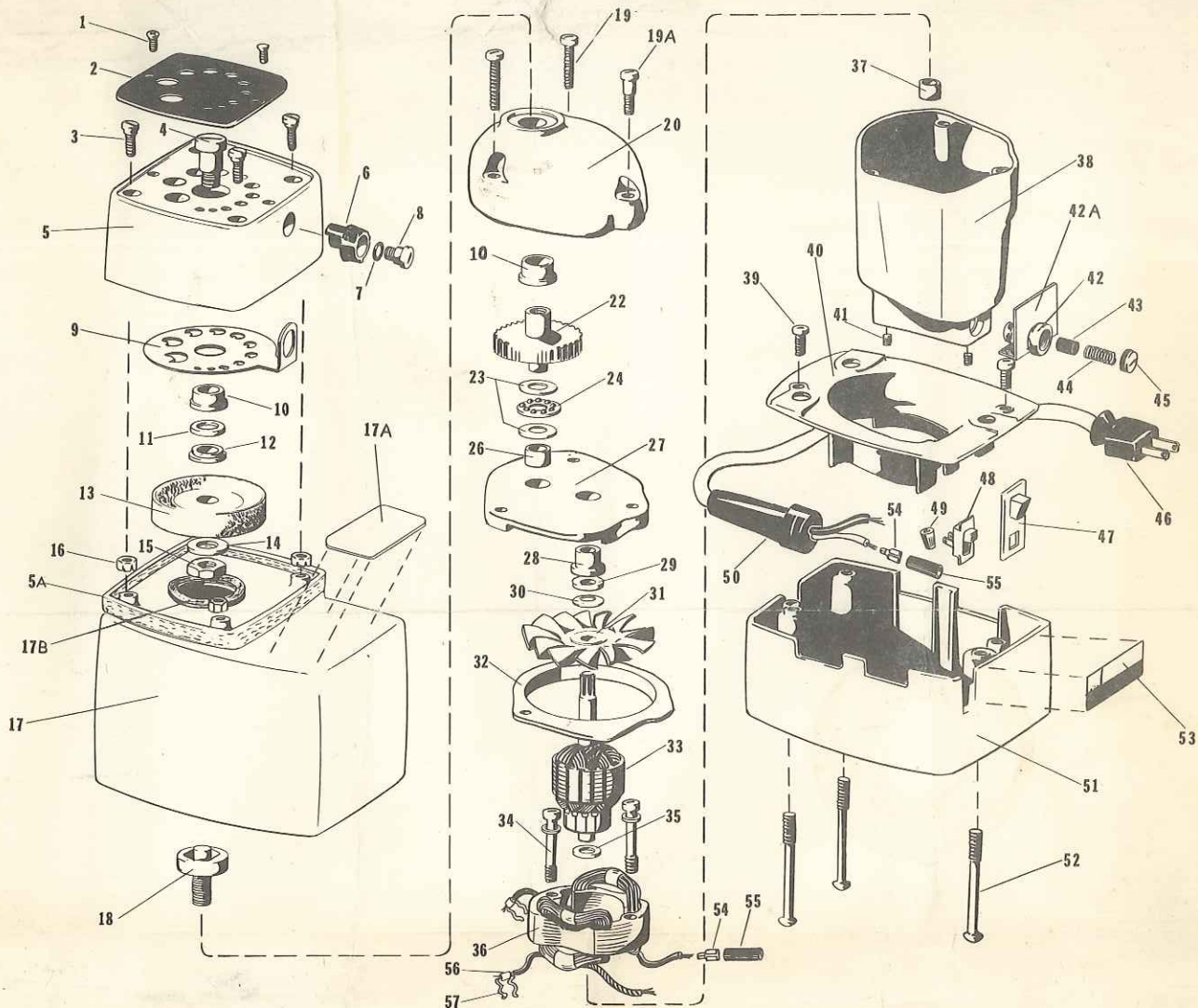
NOTE: When replacing parts make certain they are positioned as shown in Figure 4.

1. Insert spindle (No. 4) into spindle hole (No. 10).
2. Put felt washer (No. 9) over bearing shoulder inside bottom of head. Add two (2) drops of machine oil in bearing hole. Now put drive washer (No. 8) on spindle so the smaller diameter top extension of the drive washer is inserted into the felt washer.
3. Put the grinding wheel (No. 7) on the spindle with the recessed side to the top. This is the wheel surface which actually does the sharpening.
4. Put on washer (No. 6) and nut (No. 5).
5. Insert screwdriver into spindle slot and hold it in order to tighten nut. **DO NOT OVER TIGHTEN.**
6. Now assemble the head to the motor housing and thread the four screws (No. 3) into the corner holes in the housing. Keep the head square and even on the motor housing, and turn the motor "ON", while tightening the four screws. Any change in motor speed will indicate that the head is being tightened in an uneven position on the housing. Tighten screws until they are firm, but do not overtighten them.
7. Index plate (No. 2) and plate retaining screws (No. 1) may now be assembled and the unit is ready to be operated.

Repairs & Maintenance

No maintenance is normally required other than grinding wheel replacement. A worn or damaged wheel should be replaced immediately. Replacement wheels (Cat. No. 79-520) are available at any Black & Decker Service Center or write to Towson, Maryland. (See last page for addresses).





Index No.	Part No.	Description	Qty.
1	73122	6-32 x 3/8 Screw	2
2	72449	Top Plate	1
3	73120	8-18 Shoulder Screw	4
4	72419	Spindle	1
5	72488	Head (Incls. #9 & #10)	1
5A	86585	Seal	1
6	72421	Adjusting Knob	1
7	34158	O-ring	1
8	72560	Shoulder Screw	1
9	72425	Index Plate	1
10	27764	Sleeve Bearing	2
11	73463	Felt Ring	1
12	73457	Spacer	1
13	72423	Grinding Wheel	1
14	53506	Flat Washer	1
15	99365-07	Hex Nut 7/16-20	1
16	73326	"On Sert" Nut (8-18 thread)	4
17	86613	Upper Housing (Incls. 5A, 17A, 17B)	1
17A	86636	Instruction Label	1
17B	86586	Felt Seal	1
18	72669	Coupling	1
19	13205	8-32 x 1 1/4 FHM Screw	2
19A	378	8-32 x 1 1/4 FHM Screw	1
20	38484-11	Gear Case (Incls. #21)	1
21	27764	Sleeve Bearing	1
22	73373	Spindle and Gear	1
23	22308	Ball Thrust Washer	2
24	10511	Ball Thrust Retainer	1
26	27763	Sleeve Bearing	1
27	51033	Gear Case Cover (Incls. #26 & #28)	1
28	27762-02	Sleeve Bearing	1

Index No.	Part No.	Description	Qty.
29	37414	Washer	1
30	37413	Spring Washer	1
31	71372	Fan	1
32	27767	Fan Baffle Plate	1
33	60546-31	Armature & Fan (Incl. #31)	1
34	14831-01	FHM Screw & Washer	2
35	37381	Washer	1
36	85611-71	Field (Incl. #56, #57, #54, #55)	1
37	27761-02	Sleeve Bearing	1
38	51054-05	Field Case (Incl. #37)	1
39	69771	8-18 x 3/4 Screw	2
40	72466	Baffle	1
41	24857	8-32 x 3/16 Set Screw	2
42	50233	Brush Holder	2
42A	86589	Fibre Insulator	2
43	55707	Brush	2
44	50129	Brush Spring	2
45	49944	Brush Holder Cap	2
46	56499	Attachment Plug	1
47	72686	Lever	1
48	72972	Switch	1
49	32114	Wire Nut	1
50	54057-02	Cord & Plug (Incl. #46)	1
51	72473	Lower Housing	1
52	73371	#10 x 3 1/8 Self-Tap Screw	3
53	72923-01	Ident. Label	1
54	51350	Connector	2
55	73425	Heat Shrinkable Tube	2
56	50182	Brush Lead Connector	2
57	50230	Brush Lead Terminal	2

PARTS NOT SHOWN:
 72919 Connection Diagram
LUBRICATION: 0.9 Oz. U-2194 (ML54-1)
 Heavy-Duty Grease



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When servicing Double Insulated Tools, it is extremely important that ONLY IDENTICAL REPLACEMENT PARTS BE USED and that REASSEMBLY OF TOOL IS IDENTICAL TO THE ORIGINAL ASSEMBLY.

WHEN ORDERING REPLACEMENT PARTS YOU MUST GIVE UNIT, TYPE AND CATALOG NUMBER AS SHOWN ON NAMEPLATE, PLUS PART NUMBER AND NAME OF PART NEEDED.

No. 7980 DOUBLE INSULATED DRILL BIT SHARPENER

Cat. No.	Volts	Type	Amps.	RPM
7980	120	1	1.9	2250

The Black & Decker Mfg. Co.
 Towson, Maryland 21204