



SERVICE PARTS LIST

1/2" ELECTRIC DRILL

Catalog No. **1101-1**

Starting Serial No. **493-1001**

Specify Catalog and Serial No. when ordering parts

BUL. 54-08-1180

REVISED BUL.

WIRING INSTRUCTIONS
58-01-0215

500 R.P.M.

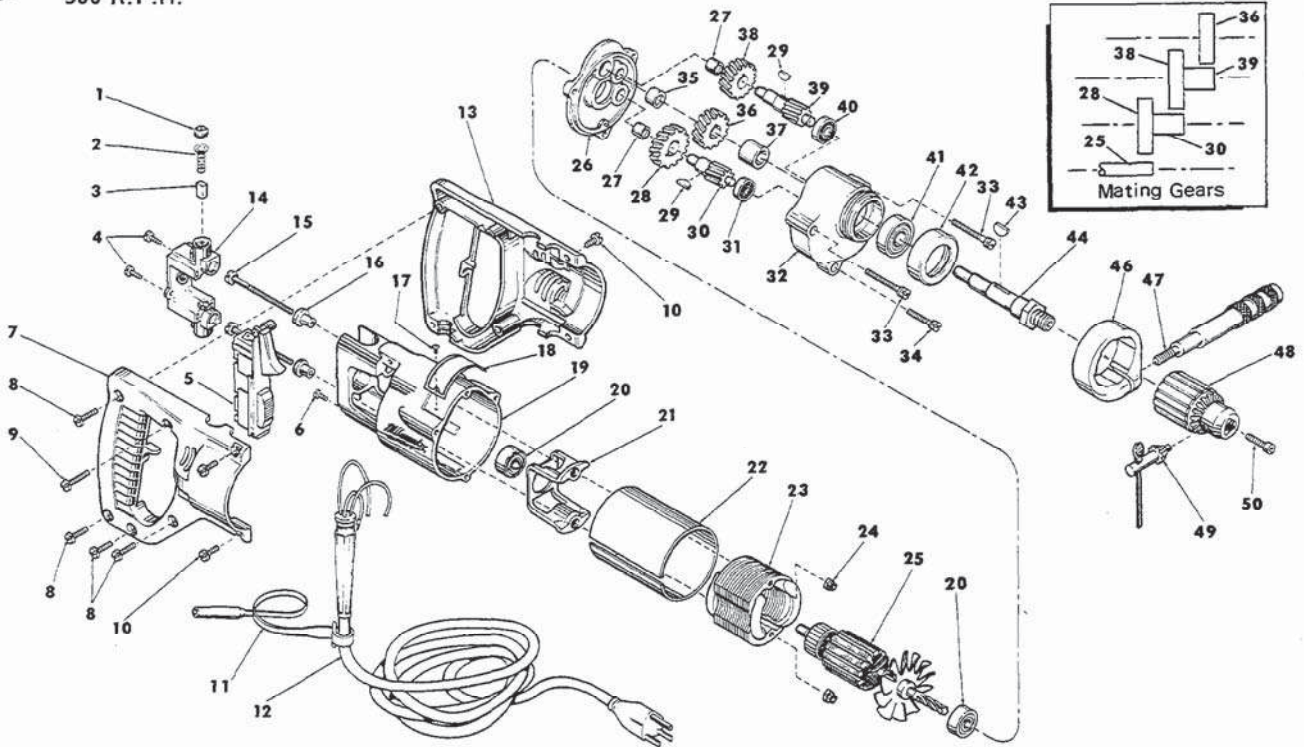


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	23-44-0120	Brush Retaining Screw	(2)	27	02-50-1640	Needle Bearing	(2)
2	23-52-0160	Brush Spring	(2)	28	32-40-1241	Intermediate Gear	(1)
3	22-16-0250	Carbon Brush	(2)	29	06-42-0800	Woodruff Key	(2)
4	06-81-5475	6-32x3/8 Binding Hd. Sem	(2)	30	36-66-2801	Intermediate Shaft	(1)
5	23-66-0751	Switch	(1)	31	02-04-0640	Ball Bearing	(1)
6	06-81-8625	6-32x1/4 Ground Screw	(1)	32	28-14-1261	Gear Case	(1)
7	31-44-0320	R.H. Half D Handle	(1)	33	06-81-6705	8-32x 1-7/8 Fil. Hd. Sem	(2)
8	06-81-0400	8-32x3/4 Pan Hd. Screw	(4)	34	06-81-6400	8-32x 1-1/8 Fil. Hd. Sem	(1)
9	06-81-0470	8-32x1 Pan Hd. Screw	(1)	35	02-50-2110	Needle Bearing	(1)
10	06-81-0045	8-32x1/2 Pan Hd. Screw	(4)	36	32-75-2061	Spindle Gear	(1)
11	48-66-4040	Key Holder	(1)	37	45-36-0210	Spindle Gear Spacer	(1)
12	22-64-0385	Cord Set	(1)	38	32-75-2041	Spindle Gear	(1)
13	31-44-0321	L.H. Half D Handle	(1)	39	36-66-4001	Intermediate Shaft	(1)
14	22-22-0300	Brush Holder Assembly	(1)	40	02-04-0820	Ball Bearing	(1)
15	06-81-1050	8-32x2-7/16 Field Bolt	(2)	41	02-04-1560	Ball Bearing	(1)
16	31-86-0120	Insulating Spacer	(2)	42	42-52-0071	Bearing Cap	(1)
17	06-85-0200	6x1/4 Rd. Hd. Type Z Screw	(2)	43	06-42-1600	Woodruff Key	(1)
18	12-99-0030	Nameplate	(1)	44	38-50-3651	Spindle	(1)
19	28-50-6141	Motor Housing	(1)	45	49-15-0200	Side Handle Assy. (Includes Nos. 46 & 47)	(1)
20	02-04-0940	Ball Bearing	(2)	46	28-82-0130	Handle Ring	(1)
21	31-55-0080	Coil Shield	(1)	47	43-62-0160	Side Handle	(1)
22	23-16-0435	Field Insulator	(1)	48	48-66-1360	1/2" Chuck (Includes Fig. No. 49)	(1)
23	18-42-1040	115 V. Field	(1)	49	48-66-3280	Chuck Key	(1)
24	06-57-2975	8-32 Flexlock Hex Nut	(2)	50	06-75-3150	1/4-20x1 L.H. Skt. Hd. Cap Screw	(1)
25	16-42-1410	115 V. Armature	(1)				
26	28-28-0661	Diaphragm	(1)				



SERVICE PARTS LIST

1/2" ELECTRIC DRILL

Catalog No. **1101-1**

Starting Serial No. **493-2151**

Specify Catalog and Serial No. when ordering parts

BUL. 54-08-1181

REVISED BUL.
54-08-1180

DATE
Sept. '74

WIRING INSTRUCTIONS
58-01-0217

500 R.P.M.

FOR 230V TOOL USE:
18-46-1230 FIELD
16-46-1440 ARMATURE
22-16-0255 CARBON BRUSH
22-64-2385 CORD SET

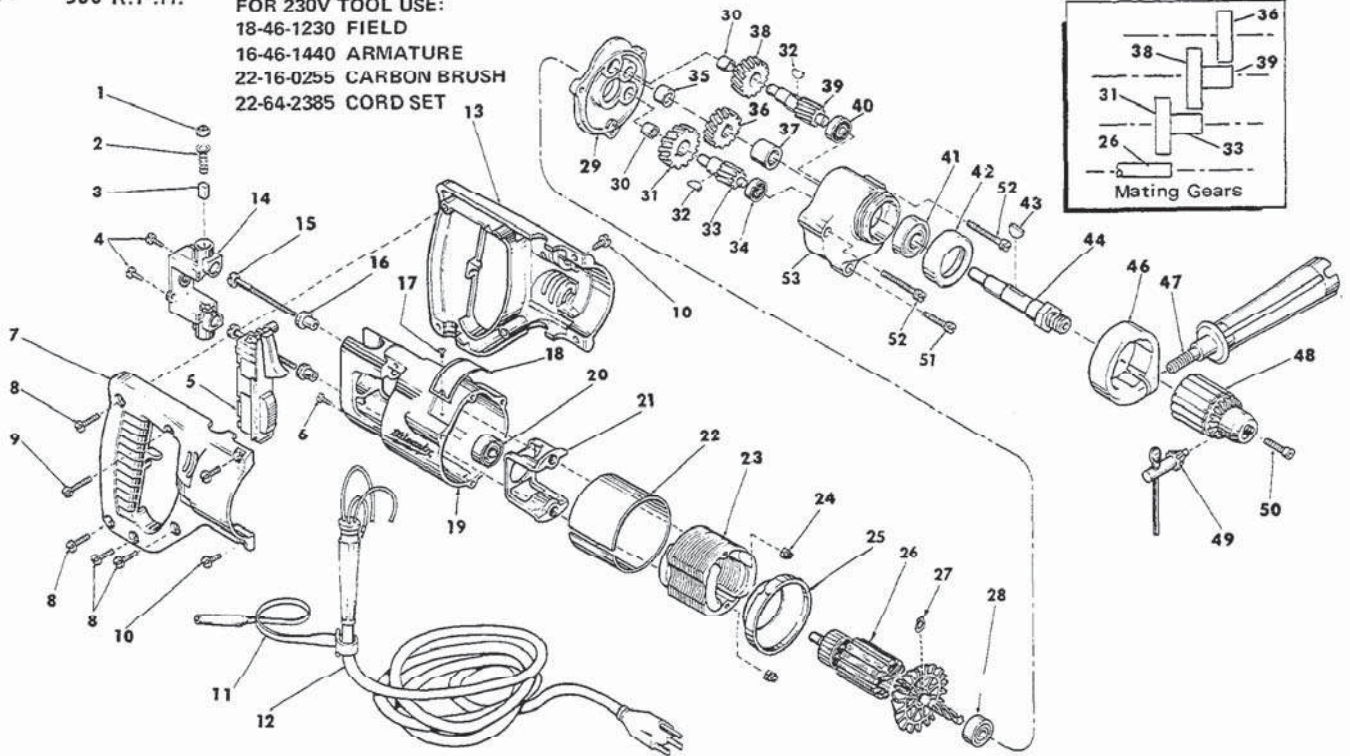


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	23-44-0120	Brush Retaining Screw	(2)	28	02-04-0940	Ball Bearing	(1)
2	23-52-0160	Brush Spring	(2)	★ 29	28-28-0662	Diaphragm	(1)
3	22-16-0250	Carbon Brush	(2)	30	02-50-1640	Needle Bearing	(2)
4	06-81-5475	6-32x3/8 Binding Hd. Sem	(2)	31	32-40-1241	Intermediate Gear	(1)
5	23-66-0751	Switch	(1)	32	06-42-0800	Woodruff Key	(2)
6	06-81-8625	6-32x1/4 Ground Screw	(1)	33	36-66-2801	Intermediate Shaft	(1)
7	31-44-0320	R.H. Half D Handle	(1)	34	02-04-0640	Ball Bearing	(1)
8	06-81-0400	8-32x3/4 Pan Hd. Screw	(4)	35	02-50-2110	Needle Bearing	(1)
9	06-81-0470	8-32x1 Pan Hd. Screw	(1)	36	32-75-2061	Spindle Gear	(1)
10	06-81-0045	8-32x1/2 Pan Hd. Screw	(4)	37	45-36-0210	Spindle Gear Spacer	(1)
11	48-66-4040	Key Holder	(1)	38	32-75-2041	Spindle Gear	(1)
12	22-64-0385	Cord Set	(1)	39	36-66-4001	Intermediate Shaft	(1)
13	31-44-0321	L.H. Half D Handle	(1)	40	02-04-0820	Ball Bearing	(1)
14	22-22-0300	Brush Holder Assembly	(1)	41	02-04-1560	Ball Bearing	(1)
15	06-81-1050	8-32x2-7/16 Field Bolt	(2)	42	42-52-0071	Bearing Cap	(1)
16	31-86-0120	Insulating Spacer	(2)	43	06-42-1600	Woodruff Key	(1)
17	06-85-0200	6x1/4 Rd. Hd. Type Z Screw	(2)	44	38-50-3651	Spindle	(1)
18	12-99-0030	Nameplate	(1)	45	49-15-0200	Side Handle Assy. (Includes Nos. 46 & 47)	(1)
★ 19	28-50-6147	Motor Housing	(1)	46	28-82-0130	Handle Ring	(1)
★ 20	02-04-0891	Ball Bearing	(1)	★ 47	43-62-0550	Side Handle	(1)
21	31-55-0080	Coil Shield	(1)	48	48-66-1360	1/2" Chuck (Includes Fig. No. 49)	(1)
★ 22	23-16-0455	Field Insulator	(1)	49	48-66-3280	Chuck Key	(1)
★ 23	18-42-1230	115 V. F field	(1)	50	06-75-3150	1/4-20x1 L.H. Skt. Hd. Cap Screw	(1)
★ 24	06-57-2975	8-32 Flexlock Hex Nut	(2)	51	06-81-6400	8-32x1-1/8 Fil. Hd. Sem	(1)
★ 25	31-05-0050	Baffle	(1)	52	06-81-6705	8-32x1-7/8 Fil. Hd. Sem	(2)
★ 26	16-42-1440	115 V. Armature (Incl. F ig. No. 27)	(1)	53	28-14-1261	Gear Case	(1)
27	34-60-0700	Snap Ring	(1)	★ 54	12-98-7081	Caution Plate (Not Shown)	



SERVICE PARTS LIST

1/2" REVERSING DRILL

Catalog No. 1101-1

Starting Serial No. **493-25491**

Specify Catalog and Serial No. when ordering parts

BUL. 54-08-1182

REVISED BUL. 54-08-1181 DATE FEB '78

WIRING INSTRUCTIONS **58-01-0219**

500 R.P.M.
4.5 AMPS
FOR CAT. NO. 1101-3
(240V) TOOL USE:
18-36-0200 FIELD
16-36-0305 ARMATURE
22-16-0255 CARBON BRUSH
22-64-4100 CORD SET

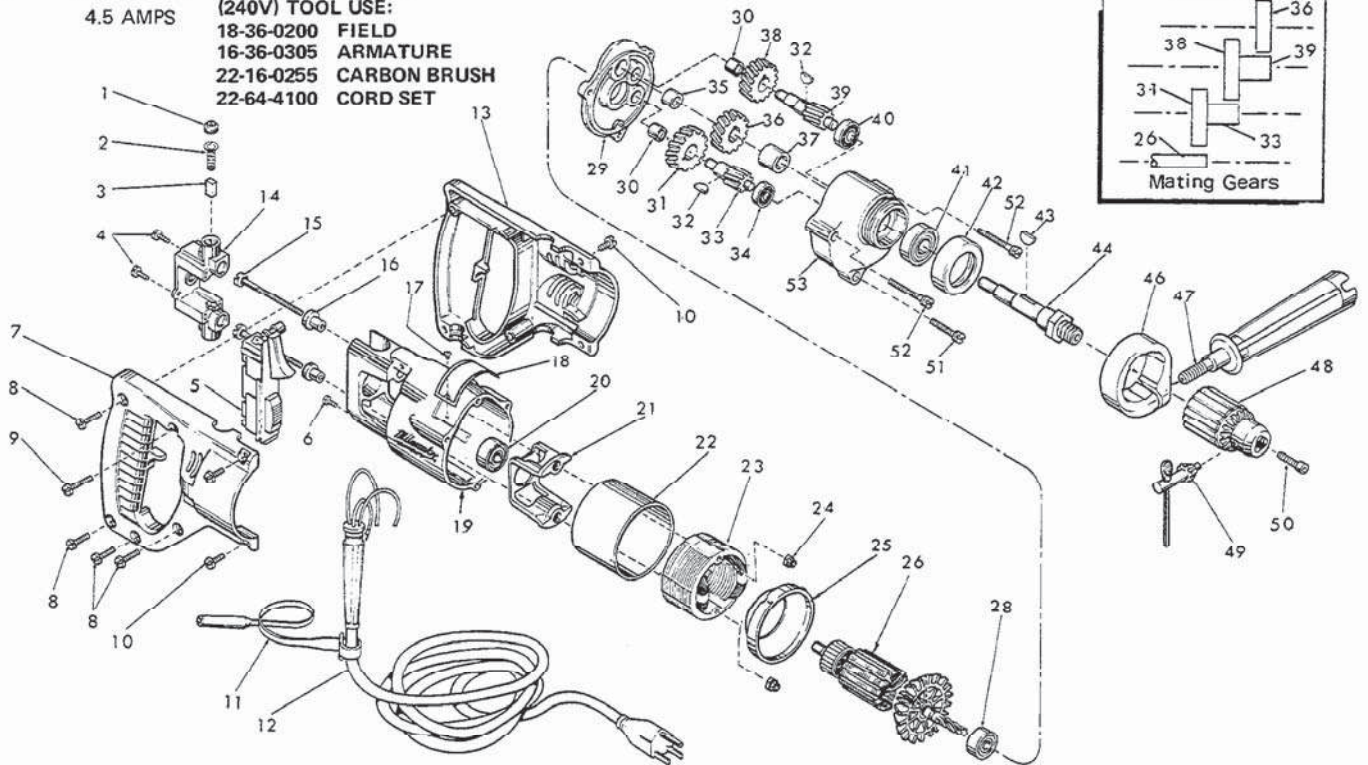
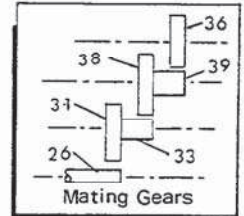


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	1	23-44-0120 Brush Retaining Screw	(2)	29	28-28-0662	Diaphragm	(1)
	2	23-52-0160 Brush Spring	(2)	30	02-50-1640	Needle Bearing	(2)
	3	22-16-0250 Carbon Brush	(2)	31	32-40-1241	Intermediate Gear	(1)
	4	06-81-5477 6-32x3/8 Phillips Pan Hd. Sem	(2)	32	06-42-0800	Woodruff Key	(2)
	5	23-66-0751 Switch	(1)	33	36-66-2801	Intermediate Shaft	(1)
	6	06-81-8625 6-32x1/4 Ground Screw	(1)	34	02-04-0640	Ball Bearing	(1)
★	7	31-44-0326 R.H. Half D Handle	(1)	35	02-50-2110	Needle Bearing	(1)
	8	06-81-0402 8-32x3/4 Pan Hd. Screw	(4)	36	32-75-2061	Spindle Gear	(1)
	9	06-81-0472 8-32x1 Pan Hd. Screw	(1)	37	45-36-0210	Spindle Gear Spacer	(1)
	10	06-81-0047 8-32x1/2 Pan Hd. Screw	(4)	38	32-75-2041	Spindle Gear	(1)
	11	48-66-4040 Key Holder	(1)	39	36-66-4001	Intermediate Shaft	(1)
	12	22-64-0385 Cord Set	(1)	40	02-04-0820	Ball Bearing	(1)
	13	31-44-0321 L.H. Half D Handle	(1)	41	02-04-1560	Ball Bearing	(1)
	14	22-22-0300 Brush Holder Assembly	(1)	42	42-52-0071	Bearing Cap	(1)
★	15	06-81-1055 8-32x2-3/16 Field Bolt	(2)	43	06-42-1600	Woodruff Key	(1)
	16	31-86-0120 Insulating Spacer	(2)	44	38-50-3651	Spindle	(1)
	17	06-85-0200 6x1/4 Rd. Hd. Type Z Screw	(2)	45	49-15-0200	Side Handle Assy (Includes Nos. 46 & 47)	(1)
	18	12-99-0030 Nameplate	(1)	46	28-82-0130	Handle Ring	(1)
	19	28-50-6147 Motor Housing	(1)	47	43-62-0550	Side Handle	(1)
	20	02-04-0891 Ball Bearing	(1)	48	48-66-1360	1/2" Chuck (Includes Fig. No. 49)	(1)
	21	31-55-0030 Coil Shield	(1)	49	48-66-3280	Chuck Key	(1)
★	22	23-16-0456 Field Insulator	(1)	50	06-75-3150	1/4-20x1 L.H. Skt. Hd. Cap Screw	(1)
★	23	18-30-0200 120 V. Field	(1)	51	06-81-6402	8-32x1-1/8 Fil. Hd. Sem	(1)
	24	06-57-2975 8-32 Flexlock Hex Nut	(2)	52	06-81-6707	8-32x1-7/8 Fil. Hd. Sem	(2)
	25	31-05-0050 Baffle	(1)	53	28-14-1261	Gear Case	(1)
★	26	16-30-0305 120 V. Armature	(1)	54	12-98-7081	Caution Plate (Not Shown)	(1)
	28	02-04-0940 Ball Bearing	(1)				



SERVICE PARTS LIST

1/2" REVERSING DRILL

BUL. 54-08-1183

REVISED BUL. 54-08-1182 DATE Aug. '78

Catalog No. 1101-1

Starting Serial No. **493-74100**

WIRING INSTRUCTIONS
58-01-0243

Specify Catalog and Serial No. when ordering parts

500 R.P.M.
4.5 AMPS

FOR CAT. NO. 1101-3
(240V) TOOL USE:
18-36-0200 FIELD
16-36-0305 ARMATURE
22-16-0255 CARBON BRUSH
22-64-4100 CORD SET

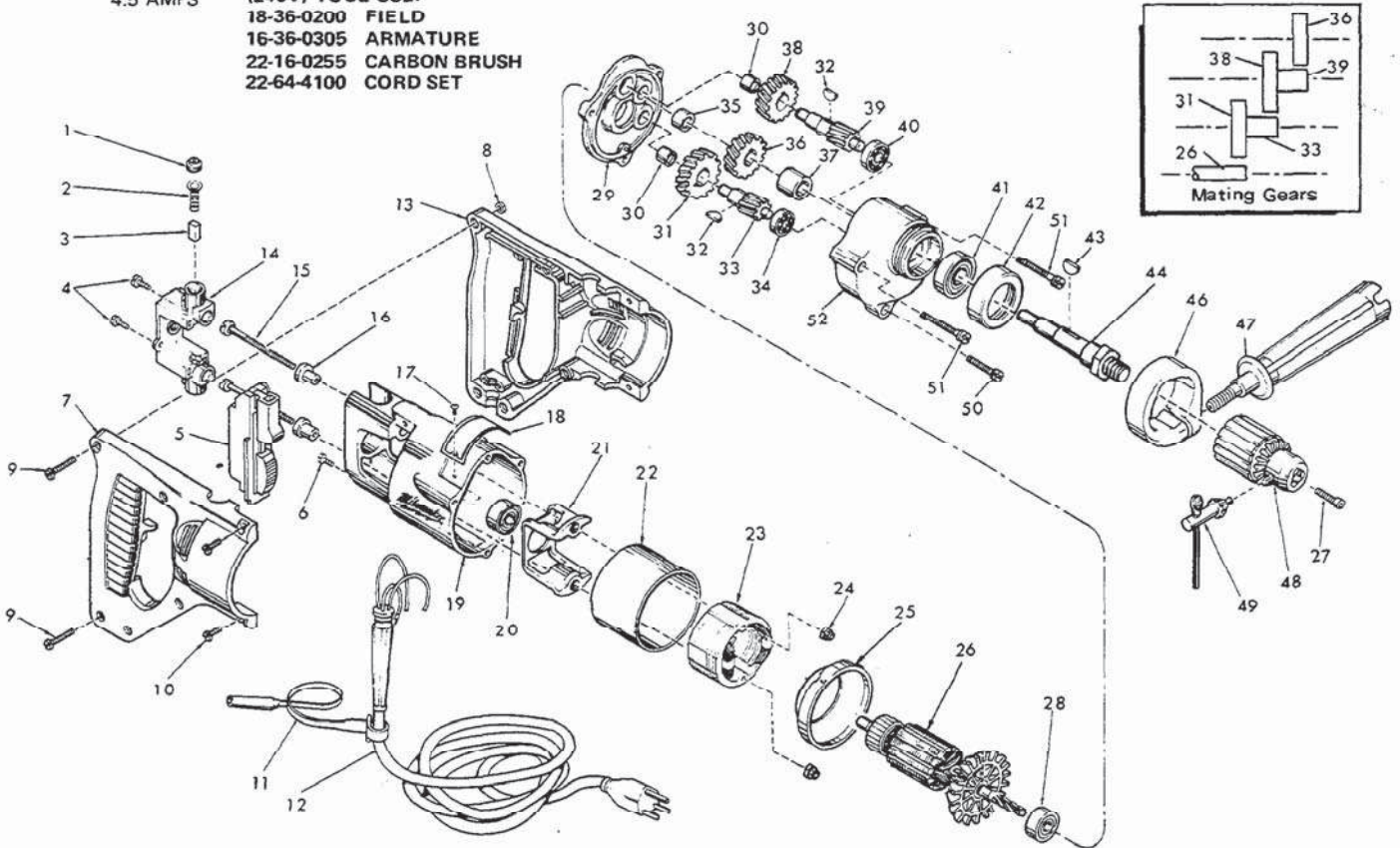


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	1	23-44-0120 Brush Retaining Screw	(2)	28	02-04-0940	Ball Bearing	(1)
	2	23-52-0160 Brush Spring	(2)	29	28-28-0662	Diaphragm	(1)
	3	22-16-0250 Carbon Brush	(2)	30	02-50-1640	Needle Bearing	(2)
	4	06-81-5477 6-32x3/8 Phillips Pan Hd. Sem	(2)	31	32-40-1241	Intermediate Gear	(1)
★	5	23-66-1020 Switch	(1)	32	06-42-0800	Woodruff Key	(2)
	6	06-81-8625 6-32x1/4 Ground Screw	(1)	33	36-66-2801	Intermediate Shaft	(1)
★	7	31-44-0565 R.H. Half D Handle	(1)	34	02-04-0640	Ball Bearing	(1)
★	8	06-55-0825 8-32 Hex Nut	(5)	35	02-50-2110	Needle Bearing	(1)
	9	06-81-0472 8-32x1 Pan Hd. Screw	(5)	36	32-75-2061	Spindle Gear	(1)
	10	06-81-0047 8-32x1/2 Pan Hd. Screw	(4)	37	45-36-0210	Spindle Gear Spacer	(1)
	11	48-66-4040 Key Holder	(1)	38	32-75-2041	Spindle Gear	(1)
★	12	22-64-0405 Cord Set	(1)	39	36-66-4001	Intermediate Shaft	(1)
★	13	31-44-0575 L.H. Half D Handle	(1)	40	02-04-0820	Ball Bearing	(1)
★	14	22-22-0302 Brush Holder Assembly	(1)	41	02-04-1560	Ball Bearing	(1)
	15	06-81-1055 8-32x2-3/16 Field Bolt	(2)	42	42-52-0071	Bearing Cap	(1)
	16	31-86-0120 Insulating Spacer	(2)	43	06-42-1600	Woodruff Key	(1)
	17	06-85-0200 6x1/4 Rd. Hd. Type Z Screw	(2)	44	38-50-3651	Spindle	(1)
	18	12-99-0030 Nameplate	(1)	45	49-15-0200	Side Handle Assy. (Includes Nos. 46 & 47)	(1)
	19	28-50-6147 Motor Housing	(1)	46	28-82-0130	Handle Ring	(1)
	20	02-04-0891 Ball Bearing	(1)	47	43-62-0550	Side Handle	(1)
	21	31-55-0030 Coil Shield	(1)	48	48-66-1360	1/2" Chuck (Includes Fig. No. 49)	(1)
	22	23-16-0456 Field Insulator	(1)	49	48-66-3280	Chuck Key	(1)
	23	18-30-0200 120 V. Field	(1)	50	06-81-6402	8-32x1-1/8 Fil. Hd. Sem	(1)
	24	06-57-2975 8-32 Flexlock Hex Nut	(2)	51	06-81-6707	8-32x1-7/8 Fil. Hd. Sem	(2)
	25	31-05-0050 Baffle	(1)	52	28-14-1261	Gear Case	(1)
	26	16-30-0305 120 V. Armature	(1)	53	12-98-7081	Caution Plate (Not Shown)	(1)
	27	06-75-3150 1/4-20x1 L.H. Skt. Hd. Cap Screw	(1)				



SERVICE PARTS LIST

BULLETIN NO.
54-08-1184

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1183	DATE May '83
1/2" REVERSING DRILL			
CATALOG NO. 1101-1	STARTING SERIAL NO. 493-87600	WIRING INSTRUCTION 58-01-0243	
CAT. NO. 1101-8	START SER. NO. 493-87600	BILINGUAL LABEL 10-98-6400	

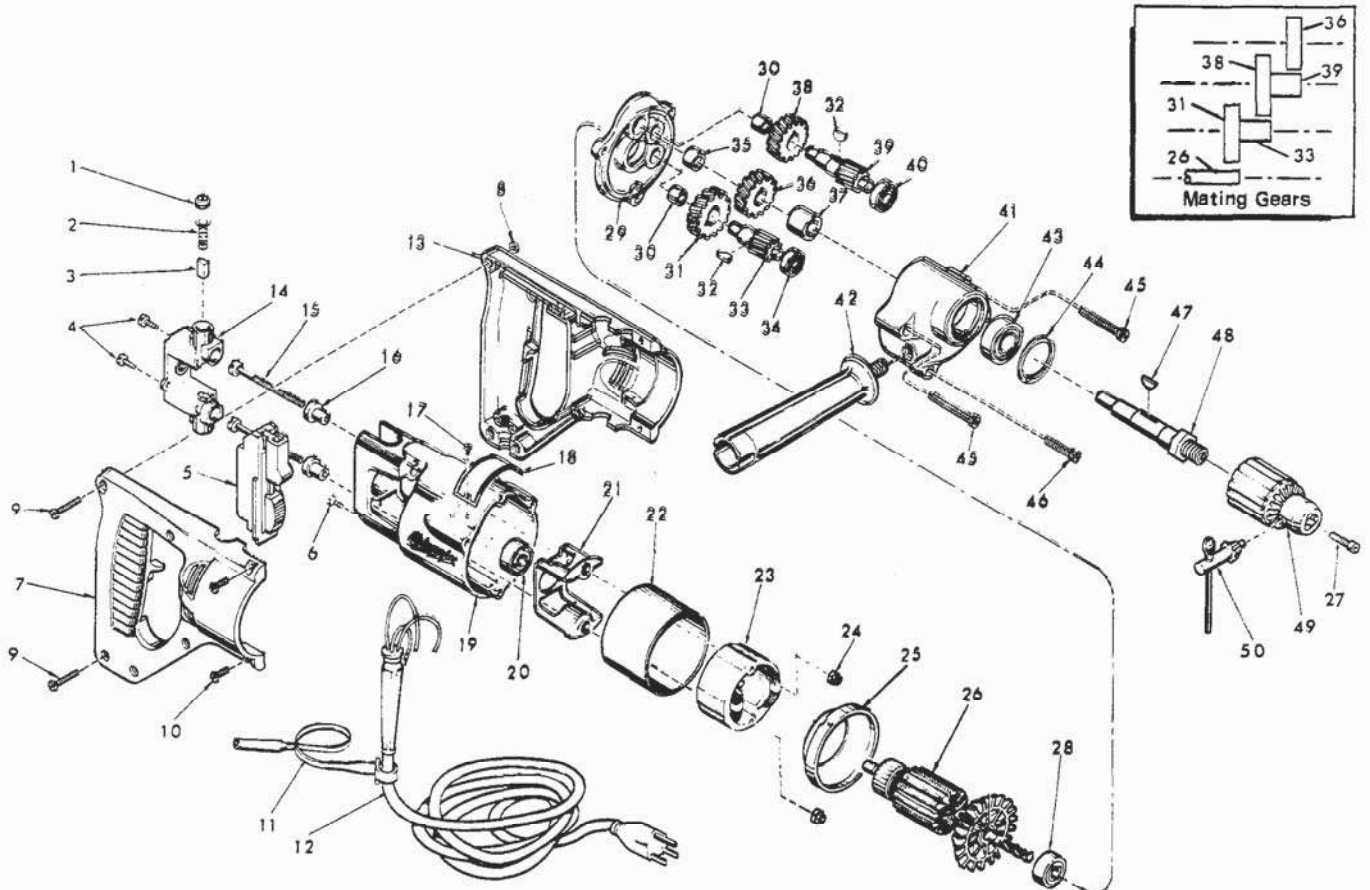


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	23-44-0120	Brush Retaining Screw	(2)	27	06-75-3150	1/4-20x1 L.H. Skt. Hd. Cap Screw	(1)
2	23-52-0160	Brush Spring	(2)	28	02-04-0940	Ball Bearing	(1)
3	22-16-0250	Carbon Brush	(2)	29	28-28-0662	Diaphragm	(1)
★ 4	06-95-0116	6-32 x 5/8" Pan Hd. Taptite Screw	(2)	30	02-50-1640	Needle Bearing	(2)
5	23-66-1020	Switch	(1)	31	32-40-1241	Intermediate Gear	(1)
★ 6	06-95-5150	Ground Screw	(1)	32	06-42-0800	Woodruff Key	(2)
7	31-44-0565	R.H. Half D Handle	(1)	33	36-66-2801	Intermediate Shaft	(1)
★ 8	06-55-0835	8-32 Hex Nut	(5)	34	02-04-0640	Ball Bearing	(1)
★ 9	06-81-0473	8-32 x 1" Pan Hd. Pozidriv Screw	(5)	35	02-50-2110	Needle Bearing	(1)
★ 10	06-95-0700	8-32 x 1/2" Pan Hd. Taptite Screw	(4)	36	32-75-2061	Spindle Gear	(1)
11	48-66-4040	Key Holder	(1)	37	45-36-0210	Spindle Gear Spacer	(1)
12	22-64-0405	Cord Set	(1)	38	32-75-2041	Spindle Gear	(1)
13	31-44-0575	L.H. Half D Handle	(1)	39	36-66-4001	Intermediate Shaft	(1)
14	22-22-0302	Brush Holder Assembly	(1)	40	02-04-0820	Ball Bearing	(1)
15	06-81-1055	8-32x2-3/16 Field Bolt	(2)	★ 41	28-14-0691	Gear Case	(1)
16	31-86-0120	Insulating Spacer	(2)	★ 42	43-62-0605	Side Handle	(1)
17	0-85-0200	6x1/4 Rd. Hd. Type Z Screw	(2)	43	02-04-1560	Ball Bearing	(1)
18	12-99-0030	Nameplate	(1)	★ 44	34-80-2500	Retaining Ring	(1)
19	28-50-6147	Motor Housing	(1)	45	06-81-6707	8-32x1-7/8 Fil. Hd. Sem	(2)
20	02-04-0891	Ball Bearing	(1)	46	06-81-6402	8-32x1-1/8 Fil. Hd. Sem	(1)
21	31-55-0030	Coil Shield	(1)	47	06-42-1600	Woodruff Key	(1)
22	23-16-0456	Field Insulator	(1)	48	38-50-3651	Spindle	(1)
23	18-30-0200	120 V. Field	(1)	49	48-66-1360	1/2" Chuck (Includes Fig. No. 50)	(1)
24	06-57-2975	8-32 Flexlock Hex Nut	(2)	50	48-66-3280	Chuck Key	(1)
25	31-05-0050	Baffle	(1)	★ 51	10-98-5987	Warning Label	(1)
★ 26	16-30-0310	120 V. Armature	(1)			Omit For Canadian Tools	



SERVICE PARTS LIST

BULLETIN NO.
54-08-1185

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1184	DATE Oct. '84
1/2" REVERSING DRILL			
CATALOG NO. 1101-1		STARTING SERIAL NO. 493-175000	
CAT. NO. 1101-6	START SER. NO. 493-175000	BILINGUAL LABEL 10-98-6400	

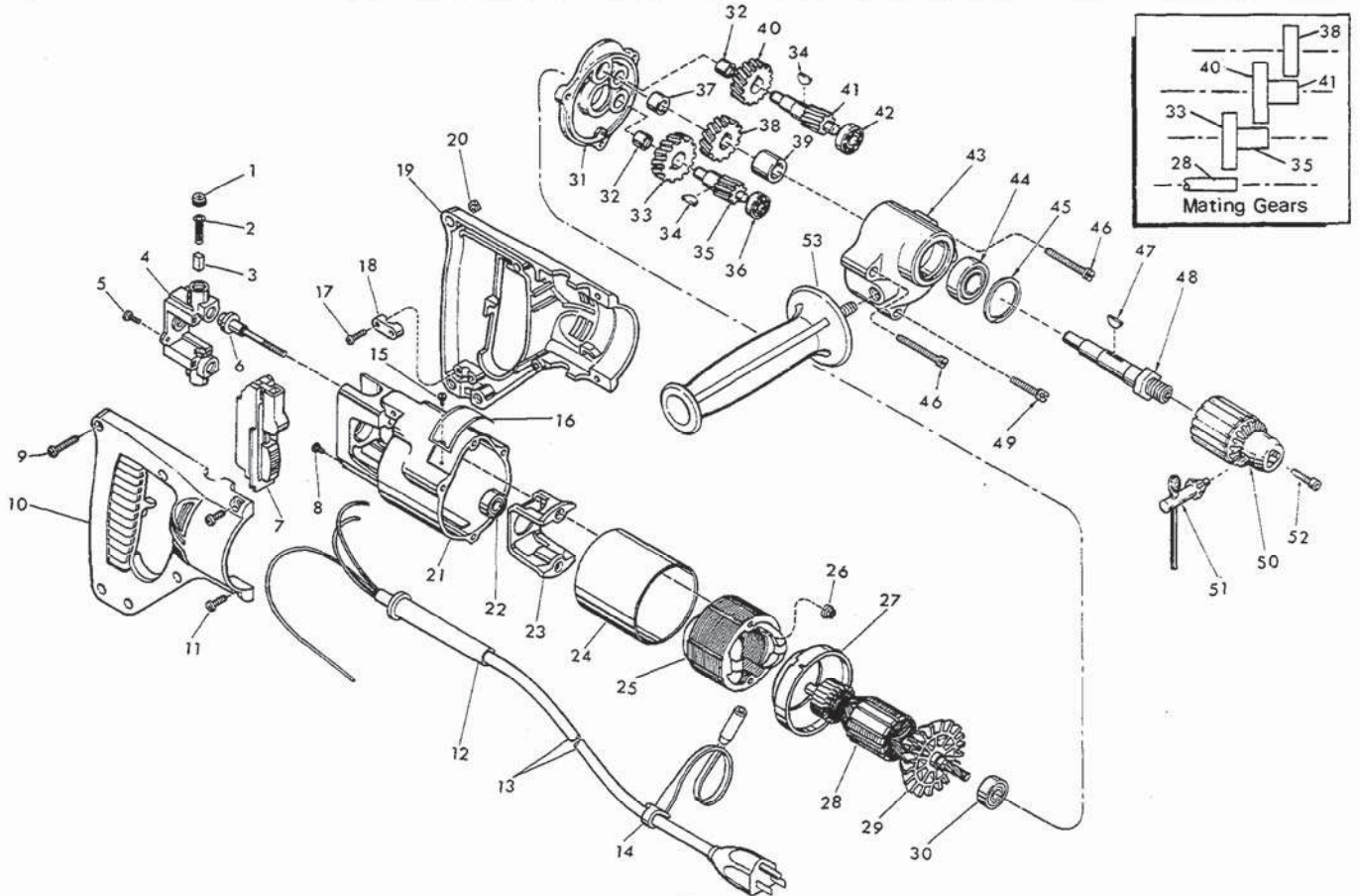


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★ 1	23-44-0190	Brush Retaining Screw	(2)
2	23-52-0160	Brush Spring	(2)
★ 3	22-16-0275	Carbon Brush	(2)
★ 4	22-22-1330	Brush Holder Assembly	(1)
★ 5	06-95-0075	6-32 x 3/8 Trus Hd. Taprite Screw	(2)
★ 6	06-81-1058	Insulated Field Bolt	(2)
7	23-66-1020	Switch	(1)
8	06-95-5150	Ground Screw	(1)
9	06-81-0473	8-32 x 1" Pan Hd. Pozidriv Screw	(5)
★ 10	31-44-1300	R.H. Half D Handle	(1)
11	06-95-0700	8-32 x 1/2" Pan Hd. Taprite Screw	(4)
★ 12	44-76-0150	Cord Protector	(1)
★ 13	22-64-0155	Cord Set	(1)
14	48-66-4040	Key Holder	(1)
15	06-85-0200	6 x 1/4 Rd. Hd. Type Z Screw	(2)
16	12-99-0030	Nameplate	(1)
★ 17	06-95-0216	8-16 x 5/8" Plastite Screw	(2)
★ 18	31-17-0156	Cord Clamp	(1)
★ 19	31-44-1305	L.H. Half D Handle	(1)
20	06-55-0835	8-32 Hex Nut	(5)
★ 21	28-50-6201	Motor Housing	(1)
★ 22	02-04-0845	Ball Bearing	(1)
23	31-55-0030	Coil Shield	(1)
24	23-16-0456	Field Insulator	(1)
25	18-30-0200	120 V. Field	(1)
26	06-57-2975	8-32 Flexlock Hex Nut	(2)
27	31-05-0050	Baffle	(1)
★ 28	16-30-0325	120 V. Armature (Incl. Fig. No. 29)	(1)
29	22-84-0530	Fan Assembly	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★ 30	02-04-0911	Ball Bearing	(1)
★ 31	28-28-0665	Diaphragm	(1)
32	02-50-1640	Needle Bearing	(2)
33	32-40-1241	Intermediate Gear	(1)
34	06-42-0800	Woodruff Key	(2)
35	36-66-2801	Intermediate Shaft	(1)
36	02-04-0640	Ball Bearing	(1)
37	02-50-2110	Needle Bearing	(1)
38	32-75-2061	Spindle Gear	(1)
39	45-36-0210	Spindle Gear Spacer	(1)
40	32-75-2041	Spindle Gear	(1)
41	36-66-4001	Intermediate Shaft	(1)
42	02-04-0820	Ball Bearing	(1)
43	28-14-0691	Gear Case	(1)
44	02-04-1560	Ball Bearing	(1)
45	34-80-2500	Retaining Ring	(1)
★ 46	06-95-5270	8-32 x 1-7/8 Fil. Hd. Sem	(2)
47	06-42-1600	Woodruff Key	(1)
48	38-50-3651	Spindle	(1)
★ 49	06-95-5250	8-32 x 1-1/8 Fil. Hd. Sem	(1)
50	48-66-1360	1/2" Chuck (Includes Fig. No. 51)	(1)
51	48-66-3280	Chuck Key	(1)
52	06-75-3150	1/4-20 x 1 L.H. Skt. Hd. Cap Screw	(1)
★ 53	43-62-0875	Side Handle	(1)
54	10-98-5987	Warning Label Omit For Canadian Tools	(1)



SERVICE PARTS LIST

BULLETIN NO.
54-08-1186

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1185	DATE Nov. '85
1/2" REVERSING DRILL			
CATALOG NO. 1101-1	STARTING SERIAL NO. 493-216000	WIRING INSTRUCTION 58-01-0243	

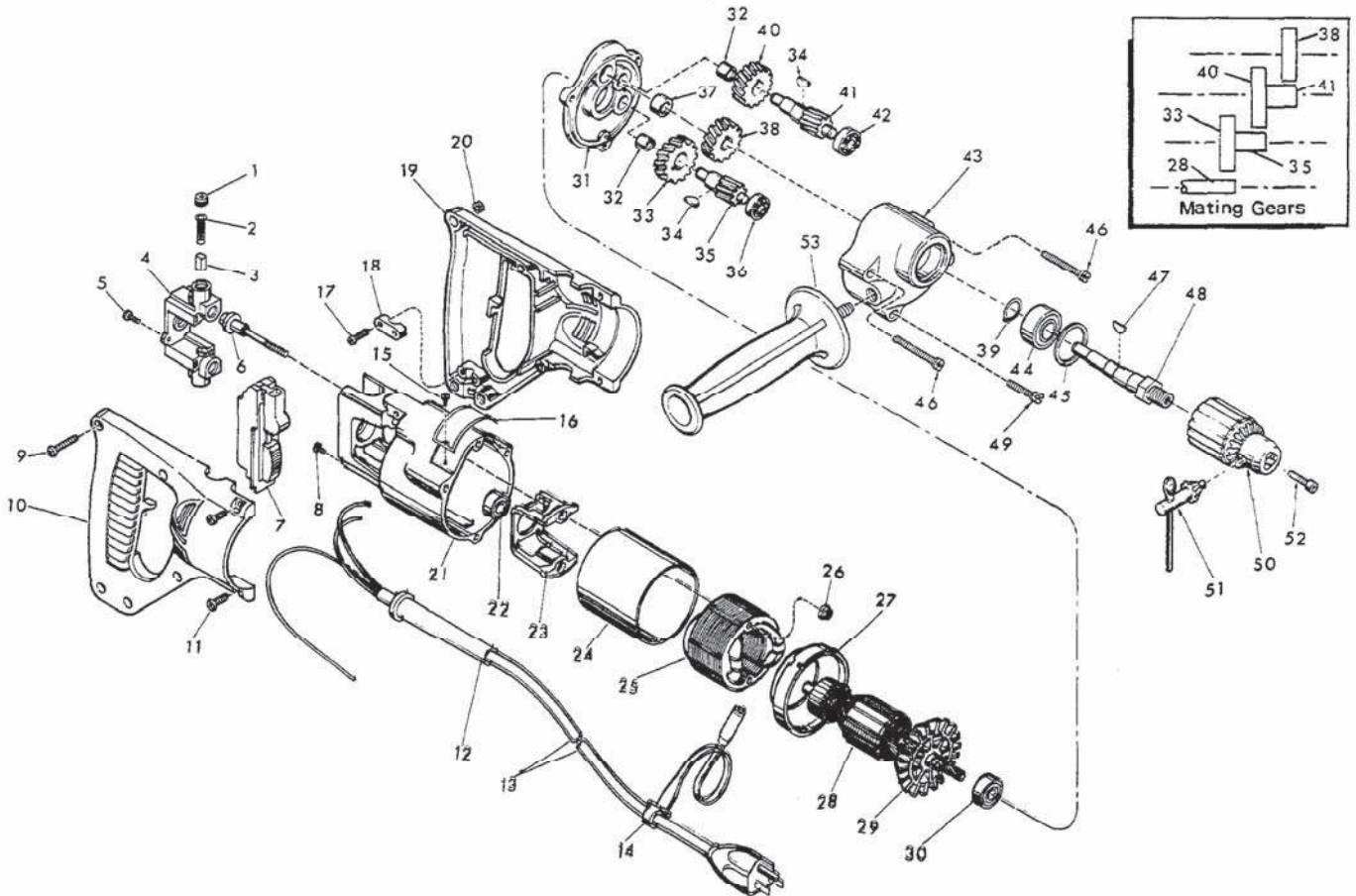


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	23-44-0190	Brush Retaining Screw	(2)	30	02-04-0911	Ball Bearing	(1)
2	23-52-0160	Brush Spring	(2)	31	28-28-0888	Diaphragm	(1)
3	22-16-0275	Carbon Brush	(2)	32	02-60-1840	Needle Bearing	(2)
4	22-22-1330	Brush Holder Assembly	(1)	33	32-40-1241	Intermediate Gear	(1)
5	06-95-0075	6-32 x 3/8 Trus Hd. Taptite Screw	(2)	34	06-42-0800	Woodruff Key	(2)
6	06-81-1058	Insulated Field Bolt	(2)	35	36-66-2801	Intermediate Shaft	(1)
7	23-66-1020	Switch	(1)	36	02-04-0840	Ball Bearing	(1)
8	06-95-5150	Ground Screw	(1)	★37	02-50-2440	Needle Bearing	(1)
9	06-81-0473	8-32 x 1" Pan Hd. Pozidriv Screw	(8)	38	32-75-2061	Spindle Gear	(1)
10	31-44-1300	R.H. Half D Handle	(1)	★39	34-60-1200	Retaining Ring	(1)
11	06-95-0700	8-32 x 1/2" Pan Hd. Taptite Screw	(4)	40	32-75-2041	Spindle Gear	(1)
12	44-76-0150	Cord Protector	(1)	41	36-66-4001	Intermediate Shaft	(1)
13	22-64-0155	Cord Set	(1)	42	02-04-0820	Ball Bearing	(1)
14	48-66-4040	Key Holder	(1)	43	28-14-0691	Gear Case	(1)
15	06-85-0200	6 x 1/4 Rd. Hd. Type Z Screw	(2)	★44	02-04-1536	Ball Bearing	(1)
16	12-99-0030	Nameplate	(1)	45	34-80-2500	Retaining Ring	(1)
17	06-95-0216	8-16 x 5/8" Plastite Screw	(2)	46	06-95-5270	8-32 x 1-7/8 Fil. Hd. Sem	(2)
18	31-17-0156	Cord Clamp	(1)	47	06-42-1600	Woodruff Key	(1)
19	31-44-1305	L.H. Half D Handle	(1)	★48	38-50-5470	Spindle	(1)
20	06-55-0835	8-32 Hex Nut	(5)	49	06-95-5250	8-32 x 1-1/8 Fil. Hd. Sem	(1)
21	28-50-6201	Motor Housing	(1)	50	48-66-1360	1/2" Chuck (Includes Fig. No. 51)	(1)
22	02-04-0845	Ball Bearing	(1)	51	48-66-3280	Chuck Key	(1)
23	31-55-0030	Coil Shield	(1)	52	06-75-3150	1/4-20 x 1 L.H. Skt. Hd. Cap Screw	(1)
24	23-16-0456	Field Insulator	(1)	53	43-62-0875	Side Handle	(1)
25	18-30-0200	120 V. Field	(1)	★54	10-98-5986	Warning Label	(1)
26	06-57-2975	8-32 Flexlock Hex Nut	(2)				
27	31-05-0050	Baffle	(1)				
28	16-30-0325	120 V. Armature (Incl. Fig. No. 29)	(1)				
29	22-84-0530	Fan Assembly	(1)				



SERVICE PARTS LIST

BULLETIN NO.
54-08-1187

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1186	DATE Oct '87
1/2" REVERSING DRILL			
CATALOG NO. 1101-1	STARTING SERIAL NO. 493-226500	WIRING INSTRUCTION 58-01-0213	

EXAMPLE:



Component Parts (Small #) Are Included When Ordering The Assembly Part (Large #).

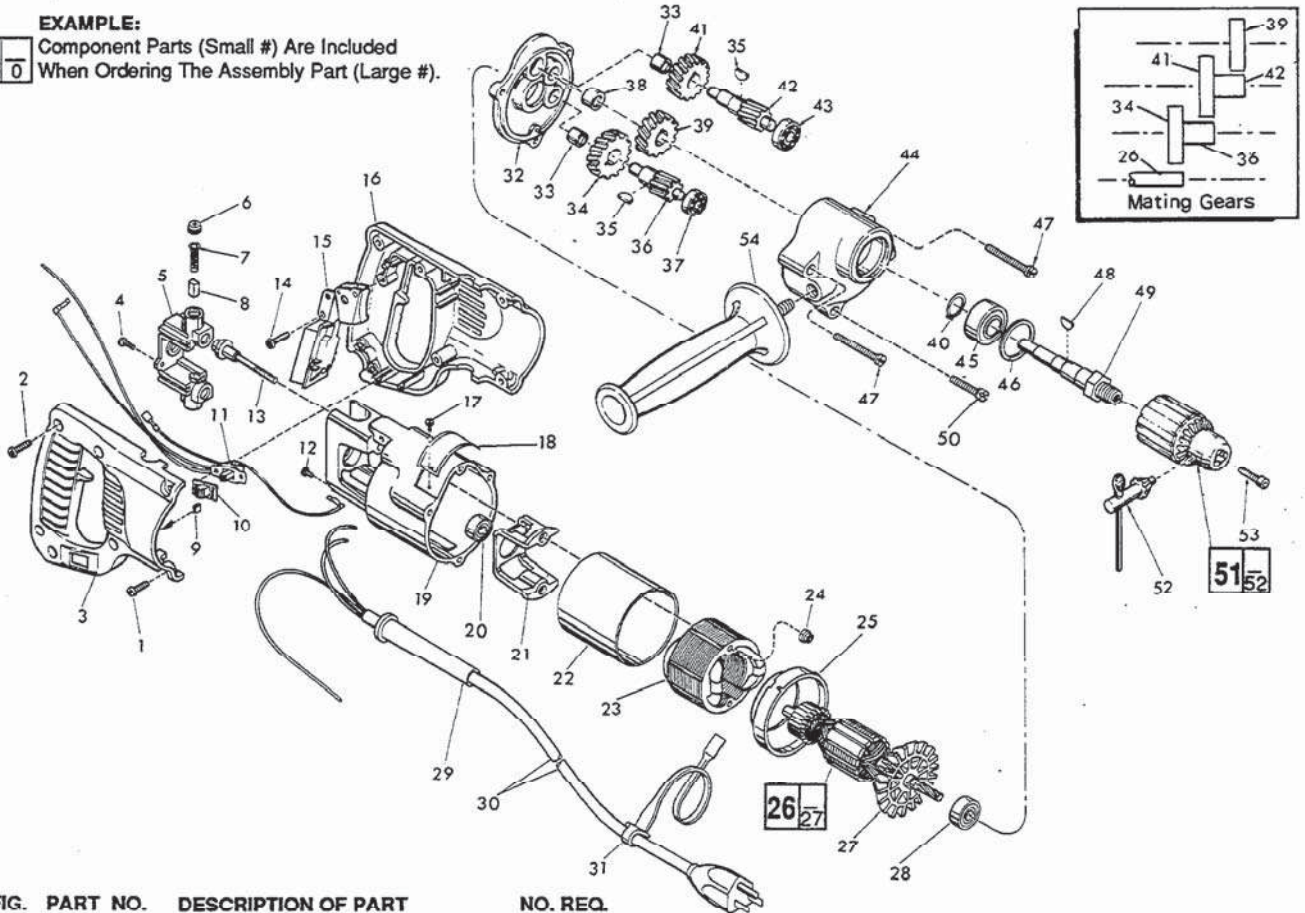


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★ 1	06-82-5316	8-32x1/2" Slot Pan Hd. Torx Screw	(4)	★ 32	28-28-0668	Diaphragm	(1)
★ 2	06-82-7260	7-18 x 5/8" Pan Hd. Plastite Torx Screw	(5)	33	02-50-1640	Needle Bearing	(2)
★ 3	31-44-1466	Right Handle Half	(1)	34	32-40-1241	Intermediate Gear	(1)
4	06-95-0075	6-32 x 3/8" Truss Hd. Taptite Screw	(2)	35	06-42-0800	Woodruff Key	(2)
5	22-22-1330	Brush Holder Assembly	(1)	36	36-66-2801	Intermediate Shaft	(1)
6	23-44-0190	Brush Retaining Cap	(2)	37	02-04-0640	Ball Bearing	(1)
7	23-52-0160	Brush Spring	(2)	38	02-50-2440	Needle Bearing	(1)
8	22-16-0275	Carbon Brush	(2)	39	32-75-2061	Spindle Gear	(1)
★ 9	42-38-0240	Bumper	(2)	40	34-60-1200	Retaining Ring	(1)
★ 10	31-12-0195	Switch Cap	(1)	41	32-75-2041	Spindle Gear	(1)
★ 11	23-66-1453	Switch Assembly	(1)	42	36-66-4001	Intermediate Shaft	(1)
12	06-95-5150	6-32 x 1/4" Hex Hd. Taptite Sems	(1)	43	02-04-0820	Ball Bearing	(1)
13	06-81-1058	8-32 x 2.19 Field Bolt	(2)	★ 44	28-14-1920	Gear Case	(1)
★ 14	06-82-7260	7-18 x 5/8" Pan Hd. Plastite Torx Screw	(1)	45	02-04-1536	Ball Bearing	(1)
★ 15	23-66-0167	On-Off Switch	(1)	46	34-80-2500	Retaining Ring	(1)
★ 16	31-44-1471	Left Handle Half	(1)	★ 47	06-82-5502	8-32 x 2-1/4" Pan Taptite Torx	(2)
17	06-85-0200	Nameplate Screw	(2)	48	06-42-1600	Woodruff Key	(1)
★ 18	12-99-0043	Nameplate Blank	(1)	49	38-50-5470	Spindle	(1)
19	28-50-6201	Motor Housing	(1)	★ 50	06-82-5404	8-32 x 1-3/8" Pan Taptite Torx	(1)
20	02-04-0845	Ball Bearing	(1)	51	48-66-1360	1/2" Chuck	(1)
21	31-55-0030	Coil Shield	(1)	52	48-66-3280	Chuck Key	(1)
22	23-16-0456	Field Insulator	(1)	53	06-76-3150	1/4 20 x 1 L.H. Skt. Hd. Cap Screw	(1)
23	18-30-0200	120 V. Field	(1)	54	43-62-0875	Side Handle	(1)
24	06-57-2975	8-32 Flexlock Hex Nut	(2)				
25	31-05-0050	Baffle	(1)				
26	16-30-0325	120 V. Armature	(1)				
27	22-84-0530	Fan Assembly	(1)				
28	02-04-0911	Ball Bearing	(1)				
29	44-76-0150	Cord Protector	(1)				
30	22-64-0155	Cord Set	(1)				
31	48-66-4040	Key Holder	(1)				

LUBRICATION:

44 3-1/4 Oz. Type "A" Grease, 49-08-0800.



SERVICE PARTS LIST

BULLETIN NO.
54-08-1188

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
1/2" REVERSING DRILL		54-08-1187	Mar. '93
CATALOG NO. 1101-1		WIRING INSTRUCTION	
STARTING SERIAL NO. 493-317519		58-01-0214	

EXAMPLE:
Component Parts (Small #)
Are Included When Ordering
The Assembly (Large #).

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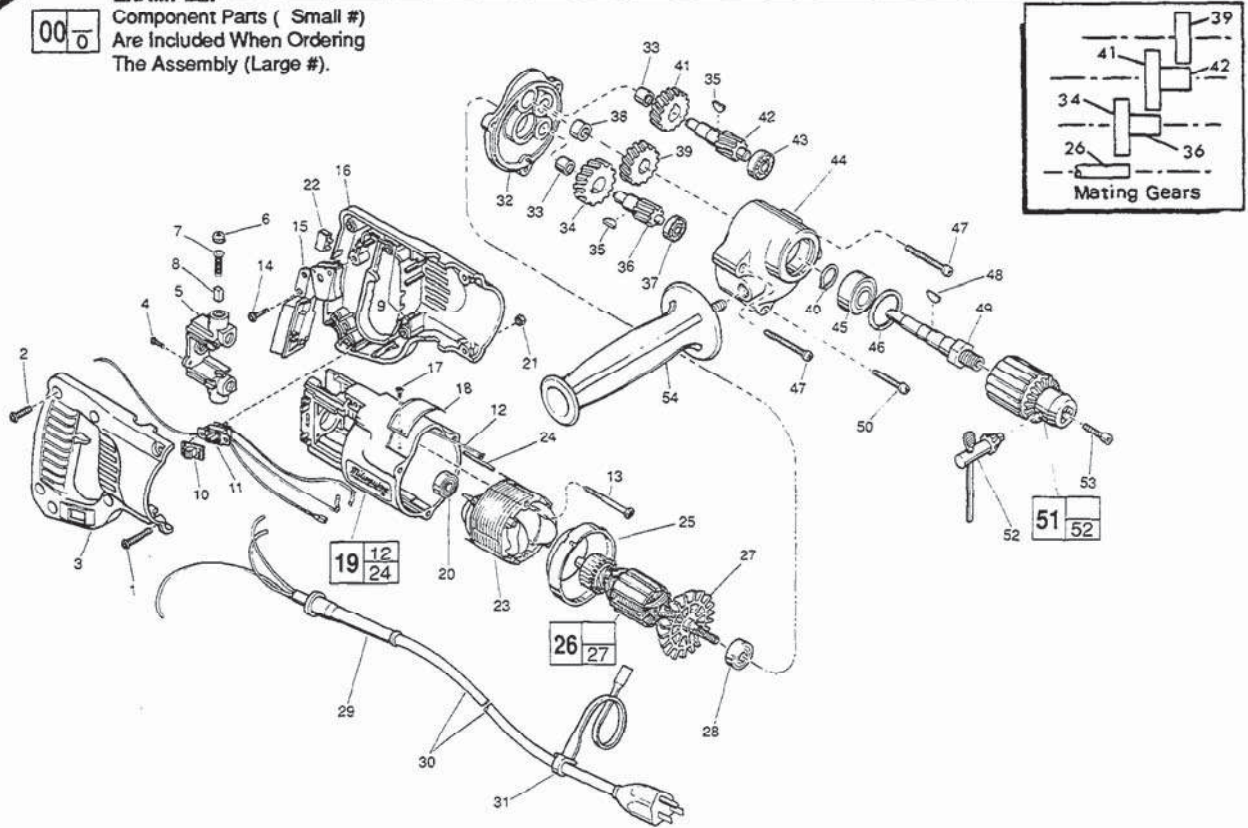


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★ 1	06-82-5390	8-32x1-1/4" Taptite T-20	(2)
★ 2	06-82-7270	8-16 x 5/8" Pan Hd. Plastite T-20	(5)
★ 3	31-44-1650	Right Handle Half	(1)
★ 4	06-82-7240	6-19 x 1/2" Pan Hd. Plast. T-15	(2)
★ 5	22-22-1380	Brush Holder Assembly	(1)
6	23-44-0190	Brush Retaining Cap	(2)
7	23-52-0160	Brush Spring	(2)
8	22-16-0275	Carbon Brush	(2)
★ 9	14-46-1001	Foam Pad Kit (10 Slugs)	(2)
★ 10	31-12-0196	Switch Cap	(1)
★ 11	23-66-1869	Switch Assembly	(1)
★ 12	23-94-6100	Ground Wire Assembly	(1)
★ 13	06-82-7410	8-16 x 1-7/8" Pan Hd. Slit Plastite T-20	(2)
★ 14	06-82-7270	8-16 x 5/8" Pan Hd. Plastite T-20	(1)
15	23-66-0167	On-Off Switch	(1)
★ 16	31-44-1655	Left Handle Half	(1)
17	06-85-0200	Nameplate Screw	(2)
★ 18	12-99-0515	Nameplate Blank	(1)
★ 19	31-50-0846	Motor Housing Assembly	(1)
20	02-04-0845	Ball Bearing	(1)
★ 21	06-55-0835	8-32 Hex Nut	(1)
★ 22	22-56-0456	Terminal Block	(1)
★ 23	18-31-0200	120 V. Field	(1)
★ 24	44-60-0530	Ground Pin	(1)
25	31-05-0050	Baffle	(1)
26	16-30-0325	120 V. Armature	(1)
★ 27	22-84-0531	Fan Assembly	(1)
28	02-04-0911	Ball Bearing	(1)
★ 29	44-76-0210	Cord Protector	(1)
★ 30	22-64-3190	Cord Set	(1)
31	48-66-4040	Key Holder	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★ 32	28-28-0611	Diaphragm	(1)
33	02-50-1640	Needle Bearing	(2)
34	32-40-1241	Intermediate Gear	(1)
35	06-42-0800	Woodruff Key	(2)
36	36-66-2801	Intermediate Shaft	(1)
37	02-04-0640	Ball Bearing	(1)
38	02-50-2440	Needle Bearing	(1)
39	32-75-2061	Spindle Gear	(1)
40	34-60-1200	Retaining Ring	(1)
41	32-75-2041	Spindle Gear	(1)
★ 42	36-66-4002	Intermediate Shaft	(1)
43	02-04-0820	Ball Bearing	(1)
44	28-14-1920	Gear Case	(1)
45	02-04-1536	Ball Bearing	(1)
46	34-80-2500	Retaining Ring	(1)
★ 47	06-82-7453	8-16 x 2-1/4" Pan Hd. Plastite T-20	(2)
48	06-42-1600	Woodruff Key	(1)
49	38-50-5470	Spindle	(1)
★ 50	06-82-7354	8-16 x 1-3/8" Pan Hd. Plastite T-20	(1)
51	48-66-1360	1/2" Chuck	(1)
52	48-66-3280	Chuck Key	(1)
53	06-75-3150	1/4-20 x 1 L.H. Skt. Hd. Cap Screw	(1)
54	43-62-0875	Side Handle	(1)

LUBRICATION:

44 3-1/4 Oz. Type "A" Grease, No. 49-08-0800.



SERVICE PARTS LIST

BULLETIN NO.
54-08-1190

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
1/2" REVERSING DRILL		54-08-1189	Mar. '95
CATALOG NO.	1101-1	WIRING INSTRUCTION	
STARTING SERIAL NO.	493A	58-01-0214	
FOR SERIAL NUMBERS: 493A394500246 TO 493A395100004 USE SERVICE PARTS LIST ON BACK SIDE			

EXAMPLE:

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 Component Parts (Small #) Are Included When Ordering The Assembly (Large #).

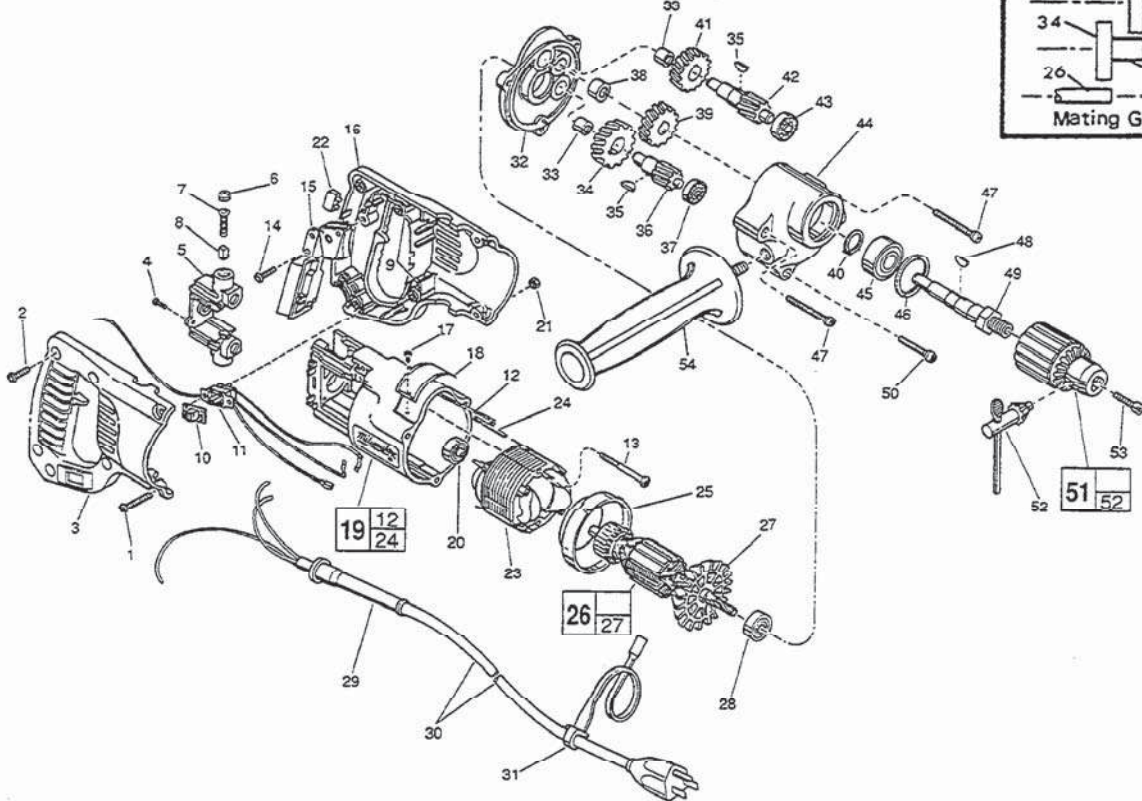
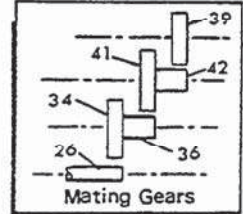
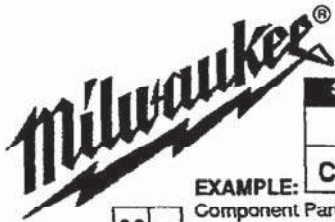


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	06-82-5390	8-32x1-1/4" Tapite T-20	(2)
2	06-82-7270	8-16 x 5/8" Pan Hd. Plastite T-20	(5)
3	31-44-1651	Right Handle Half	(1)
4	06-82-7240	6-19 x 1/2" Pan Hd. Plast. T-15	(2)
5	22-22-1380	Brush Holder Assembly	(1)
6	23-44-0190	Brush Retaining Cap	(2)
7	23-52-0160	Brush Spring	(2)
8	22-16-0275	Carbon Brush	(2)
9	14-46-1001	Foam Pad Kit (10 Slugs)	(2)
10	31-12-0196	Switch Cap	(1)
11	23-66-1869	Switch Assembly	(1)
12	23-94-6100	Ground Wire Assembly	(1)
13	06-82-7410	8-16 x 1-7/8" Pan Hd. Slt Plastite T-20	(2)
14	06-82-7270	8-16 x 5/8" Pan Hd. Plastite T-20	(1)
15	23-66-0167	On-Off Switch	(1)
16	31-44-1656	Left Handle Half	(1)
★ 17	06-72-1720	Nameplate Rivet	(2)
★ 18	12-99-1750	Service Nameplate	(1)
19	31-50-0846	Motor Housing Assembly	(1)
20	02-04-0845	Ball Bearing	(1)
21	06-55-0835	8-32 Hex Nut	(1)
22	22-56-0456	Terminal Block	(1)
23	18-31-0200	120 V. Field	(1)
24	44-60-0530	Ground Pin	(1)
25	31-05-0050	Baffle	(1)
26	16-30-0325	120 V. Armature	(1)
27	22-84-0531	Fan Assembly	(1)
28	02-04-0911	Ball Bearing	(1)
29	44-76-0210	Cord Protector	(1)
30	22-64-3190	Cord Set	(1)
31	48-66-4040	Key Holder	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
32	28-28-0611	Diaphragm	(1)
33	02-50-1640	Needle Bearing	(2)
34	32-40-1241	Intermediate Gear	(1)
35	06-42-0800	Woodruff Key	(2)
36	36-66-2801	Intermediate Shaft	(1)
37	02-04-0640	Ball Bearing	(1)
38	02-50-2440	Needle Bearing	(1)
39	32-75-2061	Spindle Gear	(1)
40	34-60-1200	Retaining Ring	(1)
41	32-75-2041	Spindle Gear	(1)
42	36-66-4002	Intermediate Shaft	(1)
43	02-04-0820	Ball Bearing	(1)
44	28-14-1920	Gear Case	(1)
45	02-04-1536	Ball Bearing	(1)
46	34-80-2500	Retaining Ring	(1)
47	06-82-7453	8-16 x 2-1/4" Pan Hd. Plastite T-20	(2)
48	06-42-1600	Woodruff Key	(1)
49	38-50-5470	Spindle	(1)
50	06-82-7354	8-16 x 1-3/8" Pan Hd. Plastite T-20	(1)
51	48-66-1360	1/2" Chuck	(1)
52	48-66-3280	Chuck Key	(1)
53	06-75-3150	1/4-20 x 1 L.H. Skt. Hd. Cap Screw	(1)
54	43-62-0875	Side Handle	(1)

LUBRICATION:

44 3-1/4 Oz. Type "A" Grease, No. 49-08-0800.



SERVICE PARTS LIST

BULLETIN NO.

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
1/2" REVERSING DRILL			
CATALOG NO.	1101-1	WIRING INSTRUCTION 58-01-0224	
EXAMPLE: STARTING SERIAL NO.			

EXAMPLE:
Component Parts (Small #)
Are Included When Ordering
The Assembly (Large #).

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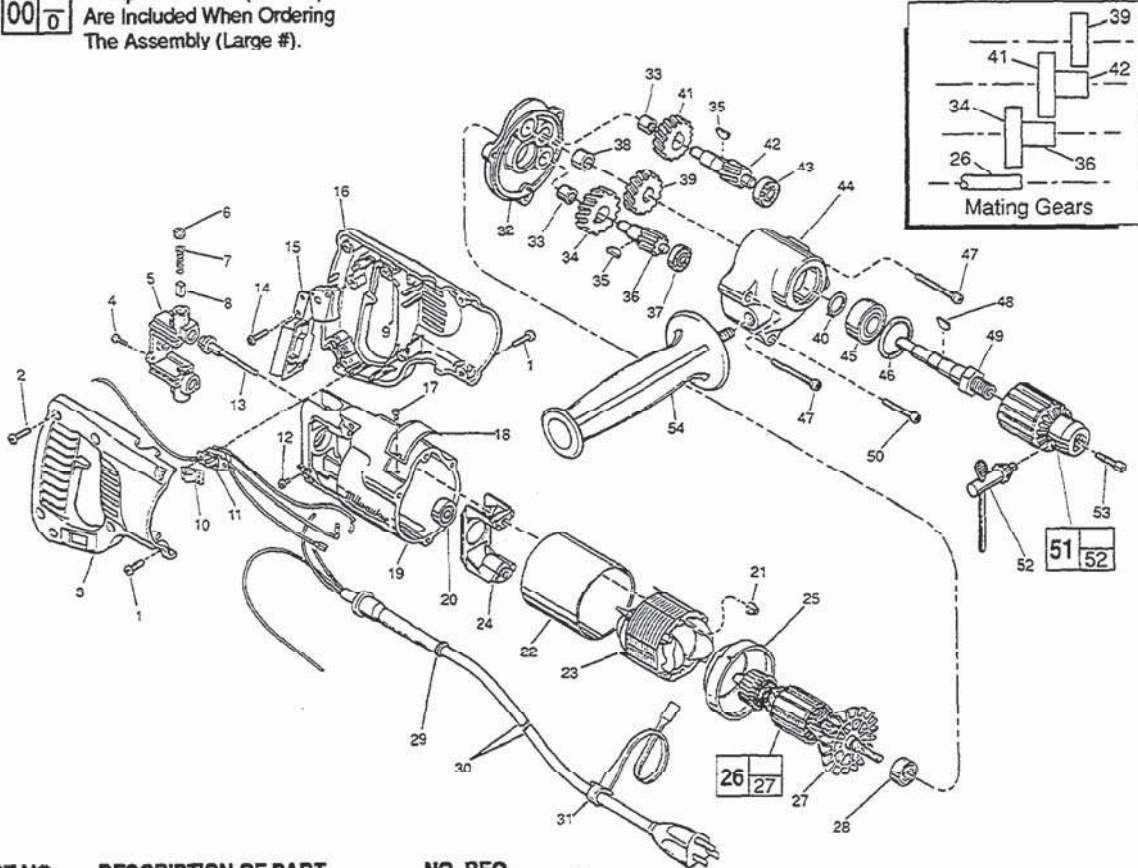


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★ 1	06-82-5316	8-32 x 1/2" Pan Hd. Slit. Taprite T-20	(4)
2	06-82-7270	8-16 x 5/8" Pan Hd. Plastite T-20	(5)
3	31-44-1651	Right Handle Half	(1)
★ 4	06-95-0075	6-32 x 3/8" Truss Hd. Taprite T-10	(2)
5	22-22-1380	Brush Holder Assembly	(1)
6	23-44-0190	Brush Retaining Cap	(2)
7	23-52-0160	Brush Spring	(2)
8	22-16-0275	Carbon Brush	(2)
★ 9	14-46-1001	Foam Pad Kit (10 Slugs)	(1)
10	31-12-0196	Switch Cap	(1)
11	23-66-1869	Switch Assembly	(1)
★ 12	06-95-5150	6-32 x 1/4" Hex Hd. Taprite Sems	(1)
★ 13	06-81-1060	8-32 x 2-1/4" Field Bolt	(2)
14	06-82-7270	8-16 x 5/8" Pan Hd. Plastite T-20	(1)
15	23-66-0167	On-Off Switch	(1)
16	31-44-1656	Left Handle Half	(1)
17	06-72-1720	Nameplate Rivet	(2)
18	12-99-1750	Sense Nameplate	(1)
★ 19	28-50-5220	Motor Housing	(1)
20	02-04-0845	Ball Bearing	(1)
★ 21	06-57-2975	8-32 Flexlock Hex Nut	(1)
★ 22	23-16-0456	Field Insulator	(1)
23	18-31-0200	120 V. Field	(1)
★ 24	31-55-0190	Coil Shield	(1)
25	31-05-0050	Baffle	(1)
26	16-30-0325	120 V. Armature	(1)
27	22-84-0531	Fan Assembly	(1)
28	02-04-0911	Ball Bearing	(1)
29	44-76-0210	Cord Protector	(1)
30	22-64-3190	Cord Set	(1)
31	48-66-4040	Key Holder	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
32	28-28-0611	Diaphragm	(1)
33	02-50-1640	Needle Bearing	(2)
34	32-40-1241	Intermediate Gear	(1)
35	06-42-0800	Woodruff Key	(2)
36	36-66-2801	Intermediate Shaft	(1)
37	02-04-0640	Ball Bearing	(1)
38	02-50-2440	Needle Bearing	(1)
39	32-75-2061	Spindle Gear	(1)
40	34-60-1200	Retaining Ring	(1)
41	32-75-2041	Spindle Gear	(1)
42	36-66-4002	Intermediate Shaft	(1)
43	02-04-0820	Ball Bearing	(1)
44	28-14-1920	Gear Case	(1)
45	02-04-1536	Ball Bearing	(1)
46	34-80-2500	Retaining Ring	(1)
★ 47	06-82-5502	8-32 x 2-1/4" Pan Hd. Taprite T-20	(2)
48	06-42-1600	Woodruff Key	(1)
49	38-50-5470	Spindle	(1)
★ 50	06-82-5404	8-32 x 1-3/8" Pan Hd. Taprite T-20	(1)
51	48-66-1360	1/2" Chuck	(1)
52	48-66-3280	Chuck Key	(1)
53	06-75-3150	1/4-20 x 1" L.H. Skt. Hd. Cap Screw	(1)
54	43-62-0875	Side Handle	(1)

LUBRICATION:

44 3-1/4 Oz. Type "A" Grease, No. 49-08-0800.



SERVICE PARTS LIST

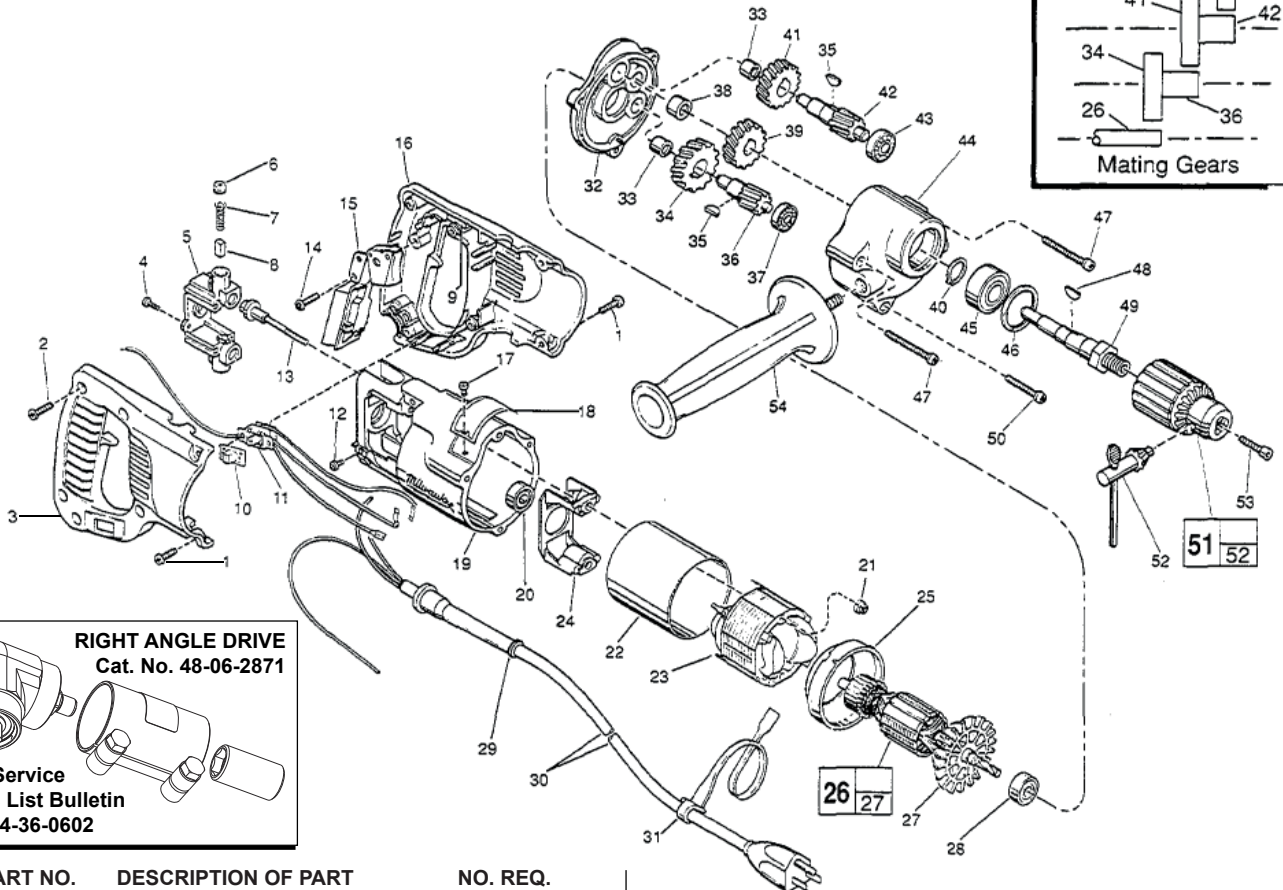
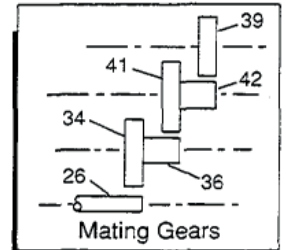
**BULLETIN NO.
54-08-1192**

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1191	DATE Jan. 2013
1/2" REVERSING DRILL			
CATALOG NO.	1101-1	STARTING SERIAL NO.	493C
		WIRING INSTRUCTION 58-01-0224	

EXAMPLE:

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 Component Parts (Small #) Are Included
 When Ordering The Assembly (Large #).



RIGHT ANGLE DRIVE
Cat. No. 48-06-2871

See Service
Parts List Bulletin
No. 54-36-0602

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	1	06-82-5316 8-32 x 1/2" Pan Hd. Slit. Taptite T-20	(4)
	2	06-82-7270 8-16 x 5/8" Pan Hd. Plastite T-20	(5)
	3	31-44-1651 Right Handle Half	(1)
	4	06-95-0075 6-32 x 3/8" Truss Hd. Taptite T-10	(2)
	5	22-22-1380 Brush Holder Assembly	(1)
	6	23-44-0190 Brush Retaining Cap	(2)
	7	23-52-0160 Brush Spring	(2)
	8	22-16-0275 Carbon Brush	(2)
	9	14-46-1001 Foam Pad Kit (10 Slugs)	(1)
	10	31-12-0196 Switch Cap	(1)
	11	23-66-1869 Switch Assembly	(1)
	12	06-95-5150 6-32 x 1/4" Hex Hd. Taptite Sems	(1)
	13	06-81-1060 8-32 x 2-1/4" Field Bolt	(2)
	14	06-82-7270 8-16 x 5/8" Pan Hd. Plastite T-20	(1)
	15	23-66-0167 On-Off Switch	(1)
	16	31-44-1656 Left Handle Half	(1)
	17	06-72-1720 Nameplate Rivet	(2)
	18	12-99-1750 Service Nameplate	(1)
	19	28-50-6220 Motor Housing	(1)
	20	02-04-0845 Ball Bearing	(1)
	21	06-57-2975 8-32 Flexlock Hex Nut	(1)
	22	23-16-0456 Field Insulator	(1)
	23	18-31-0200 120 V. Field	(1)
	24	31-55-0190 Coil Shield	(1)
	25	31-05-0050 Baffle	(1)
★	26	16-30-0326 120 V. Armature	(1)
	27	22-84-0531 Fan Assembly	(1)
	28	02-04-0911 Ball Bearing	(1)
	29	44-76-0210 Cord Protector	(1)
	30	22-64-3190 Cord Set	(1)
	31	48-66-4040 Key Holder	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	32	28-28-0611 Diaphragm	(1)
	33	02-50-1640 Needle Bearing	(2)
★	34	32-40-1251 Intermediate Gear	(1)
	35	06-42-0800 Woodruff Key	(2)
★	36	36-66-2811 Intermediate Shaft	(1)
	37	02-04-0640 Ball Bearing	(1)
	38	02-50-2440 Needle Bearing	(1)
★	39	32-75-2066 Spindle Gear	(1)
	40	34-60-1200 Retaining Ring	(1)
★	41	32-75-2051 2nd Intermediate Gear	(1)
★	42	36-66-4012 2nd Intermediate Shaft	(1)
	43	02-04-0820 Ball Bearing	(1)
★	44	28-14-1921 Gear Case	(1)
	45	02-04-1536 Ball Bearing	(1)
	46	34-80-2500 Retaining Ring	(1)
★	47	06-82-5532 8-32 x 2-1/2" Pan Hd. Taptite T-20	(2)
★	48	06-42-2000 Woodruff Key	(1)
★	49	38-50-5475 Spindle	(1)
★	50	06-82-5432 8-32 x 1-5/8" Pan Hd. Taptite T-20	(1)
	51	48-66-1360 1/2" Chuck	(1)
	52	48-66-3280 Chuck Key	(1)
	53	06-75-3150 1/4-20 x 1" L.H. Skt. Hd. Cap Screw	(1)
	54	43-62-0875 Side Handle	(1)

LUBRICATION:

★44 3-3/4 Oz. Type "A" Grease, No. 49-08-0800.



SERVICE PARTS LIST

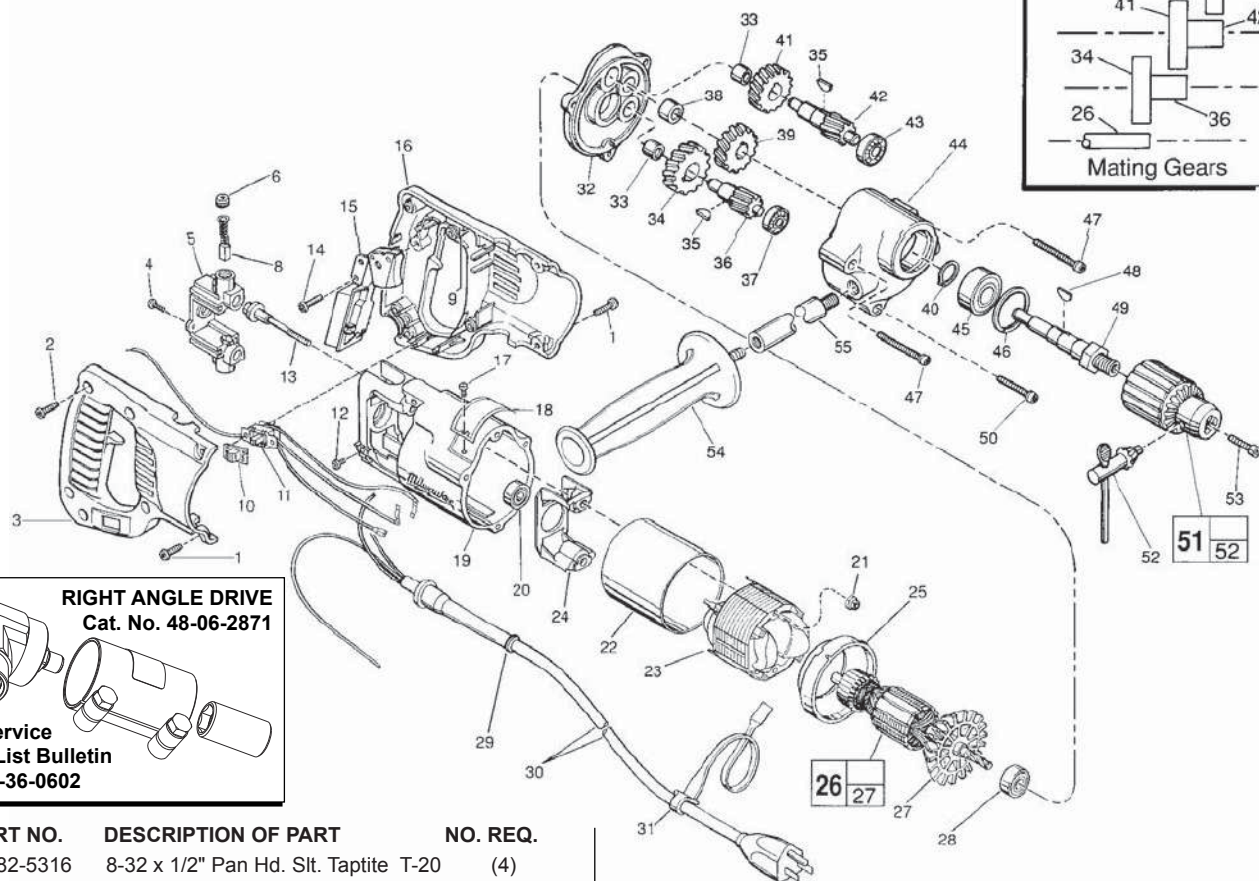
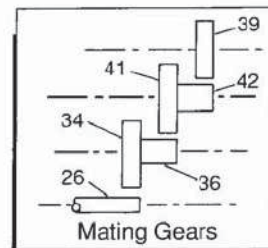
**BULLETIN NO.
54-08-1193**

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1192	DATE Jan. 2013
1/2" REVERSING DRILL			
CATALOG NO.	1101-1	STARTING SERIAL NO.	493D
		WIRING INSTRUCTION 58-01-0224	

EXAMPLE:

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 Component Parts (Small #) Are Included
 When Ordering The Assembly (Large #).



RIGHT ANGLE DRIVE
Cat. No. 48-06-2871

See Service
 Parts List Bulletin
 No. 54-36-0602

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	06-82-5316	8-32 x 1/2" Pan Hd. Slit. Taptite T-20	(4)
2	06-82-7270	8-16 x 5/8" Pan Hd. Plastite T-20	(5)
3	31-44-1651	Right Handle Half	(1)
4	06-95-0075	6-32 x 3/8" Truss Hd. Taptite T-10	(2)
5	22-22-1380	Brush Holder Assembly	(1)
6	23-44-0190	Brush Retaining Cap	(2)
7	23-52-0160	Brush Spring	(2)
★ 8	22-18-0910	Carbon Brush Assembly	(2)
9	14-46-1001	Foam Pad Kit (10 Slugs)	(1)
10	31-12-0196	Switch Cap	(1)
11	23-66-1869	Switch Assembly	(1)
12	06-95-5150	6-32 x 1/4" Hex Hd. Taptite Sems	(1)
13	06-81-1060	8-32 x 2-1/4" Field Bolt	(2)
14	06-82-7270	8-16 x 5/8" Pan Hd. Plastite T-20	(1)
15	23-66-0167	On-Off Switch	(1)
16	31-44-1656	Left Handle Half	(1)
17	06-72-1720	Nameplate Rivet	(2)
18	12-99-1750	Service Nameplate	(1)
19	28-50-6220	Motor Housing	(1)
20	02-04-0845	Ball Bearing	(1)
21	06-57-2975	8-32 Flexlock Hex Nut	(1)
22	23-16-0456	Field Insulator	(1)
★ 23	18-31-0600	120 V. Field	(1)
24	31-55-0190	Coil Shield	(1)
★ 25	31-05-0055	Baffle	(1)
★ 26	16-30-0226	120 V. Armature	(1)
27	22-84-0531	Fan Assembly	(1)
28	02-04-0911	Ball Bearing	(1)
29	44-76-0210	Cord Protector	(1)
30	22-64-3190	Cord Set	(1)
31	48-66-4040	Key Holder	(1)
32	28-28-0611	Diaphragm	(1)
33	02-50-1640	Needle Bearing	(2)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
34	32-40-1251	Intermediate Gear	(1)
35	06-42-0800	Woodruff Key	(2)
36	36-66-2811	Intermediate Shaft	(1)
37	02-04-0640	Ball Bearing	(1)
38	02-50-2440	Needle Bearing	(1)
★ 39	32-75-3470	Spindle Gear	(1)
40	34-60-1200	Retaining Ring	(1)
41	32-75-2051	2nd Intermediate Gear	(1)
★ 42	36-66-9670	2nd Intermediate Shaft	(1)
43	02-04-0820	Ball Bearing	(1)
★ 44	28-14-1922	Gear Case	(1)
45	02-04-1536	Ball Bearing	(1)
46	34-80-2500	Retaining Ring	(1)
47	06-82-5532	8-32 x 2-1/2" Pan Hd. Taptite T-20	(2)
48	06-42-2000	Woodruff Key	(1)
49	38-50-5475	Spindle	(1)
50	06-82-5432	8-32 x 1-5/8" Pan Hd. Taptite T-20	(1)
51	48-66-1360	1/2" Chuck	(1)
52	48-66-3280	Chuck Key	(1)
53	06-75-3150	1/4-20 x 1" L.H. Skt. Hd. Cap Screw	(1)
★ 54	43-62-1265	Side Handle	(1)
★ 55	43-62-1170	Side Handle Extension	(1)

FIG. LUBRICATION:
 44 3-3/4 Oz. Type "A" Grease, No. 49-08-0800.

FIG. NOTES:
 54 Apply Red Loctite To Threads Of Side Handle.



SERVICE PARTS LIST

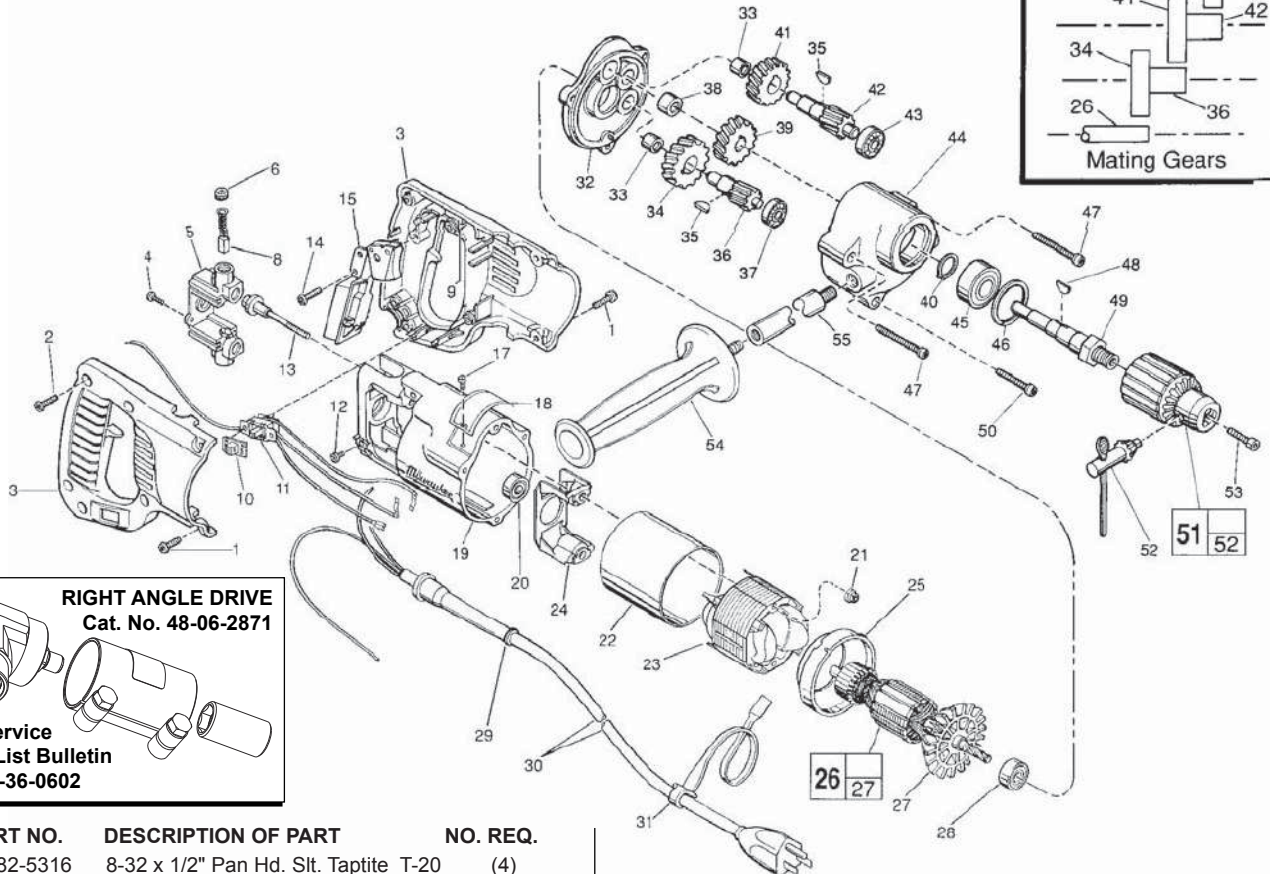
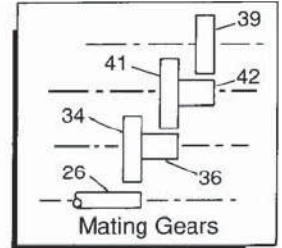
BULLETIN NO.
54-08-1194

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1193	DATE Jan. 2013
1/2" REVERSING DRILL			
CATALOG NO.	1101-1	STARTING SERIAL NO.	493E & 493F
			WIRING INSTRUCTION 58-01-0224

EXAMPLE:

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 Component Parts (Small #) Are Included
 When Ordering The Assembly (Large #).



RIGHT ANGLE DRIVE
Cat. No. 48-06-2871

See Service
 Parts List Bulletin
 No. 54-36-0602

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	1	06-82-5316 8-32 x 1/2" Pan Hd. Slit. Taptite T-20	(4)
	2	06-82-7270 8-16 x 5/8" Pan Hd. Plastite T-20	(5)
★	3	31-44-1680 Right and Left Handle Halves	(1)
	4	06-95-0075 6-32 x 3/8" Truss Hd. Taptite T-10	(2)
	5	22-22-1380 Brush Holder Assembly	(1)
	6	23-44-0190 Brush Retaining Cap	(2)
	7	23-52-0160 Brush Spring	(2)
	8	22-18-0910 Carbon Brush Assembly	(2)
	9	14-46-1001 Foam Pad Kit (10 Slugs)	(1)
	10	31-12-0196 Switch Cap	(1)
★	11	23-66-1879 Reversing Switch Assembly	(1)
	12	06-95-5150 6-32 x 1/4" Hex Hd. Taptite Sems	(1)
	13	06-81-1060 8-32 x 2-1/4" Field Bolt	(2)
	14	06-82-7270 8-16 x 5/8" Pan Hd. Plastite T-20	(1)
	15	23-66-0167 On-Off Switch	(1)
	17	06-72-1720 Nameplate Rivet	(2)
	18	12-99-1750 Service Nameplate	(1)
	19	28-50-6220 Motor Housing	(1)
	20	02-04-0845 Ball Bearing	(1)
	21	06-57-2975 8-32 Flexlock Hex Nut	(1)
	22	23-16-0456 Field Insulator	(1)
	23	18-31-0600 120 V. Field	(1)
	24	31-55-0190 Coil Shield	(1)
	25	31-05-0055 Baffle	(1)
	26	16-30-0226 120 V. Armature	(1)
	27	22-84-0531 Fan Assembly	(1)
	28	02-04-0911 Ball Bearing	(1)
	29	44-76-0210 Cord Protector	(1)
	30	22-64-3190 Cord Set	(1)
	31	48-66-4040 Key Holder	(1)
	32	28-28-0611 Diaphragm	(1)
	33	02-50-1640 Needle Bearing	(2)
	34	32-40-1251 Intermediate Gear	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	35	06-42-0800 Woodruff Key	(2)
	36	36-66-2811 Intermediate Shaft	(1)
	37	02-04-0640 Ball Bearing	(1)
	38	02-50-2440 Needle Bearing	(1)
	39	32-75-3470 Spindle Gear	(1)
	40	34-60-1200 Retaining Ring	(1)
	41	32-75-2051 2nd Intermediate Gear	(1)
	42	36-66-9670 2nd Intermediate Shaft	(1)
	43	02-04-0820 Ball Bearing	(1)
	44	28-14-1922 Gear Case	(1)
	45	02-04-1536 Ball Bearing	(1)
	46	34-80-2500 Retaining Ring	(1)
	47	06-82-5532 8-32 x 2-1/2" Pan Hd. Taptite T-20	(2)
	48	06-42-2000 Woodruff Key	(1)
	49	38-50-5475 Spindle	(1)
	50	06-82-5432 8-32 x 1-5/8" Pan Hd. Taptite T-20	(1)
	51	48-66-1360 1/2" Chuck	(1)
	52	48-66-3280 Chuck Key	(1)
	53	06-75-3150 1/4-20 x 1" L.H. Skt. Hd. Cap Screw	(1)
	54	43-62-1265 Side Handle	(1)
	55	43-62-1170 Side Handle Extension	(1)

FIG. LUBRICATION:
 44 3-3/4 Oz. Type "A" Grease, No. 49-08-0800.

FIG. NOTES:
 54 Apply Red Loctite To Threads Of Side Handle.



SERVICE PARTS LIST

**BULLETIN NO.
54-08-1195**

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1194	DATE Jan. 2013
1/2" REVERSING DRILL			
CATALOG NO.	1101-1	STARTING SERIAL NO.	493F
			WIRING INSTRUCTION 58-01-0226

EXAMPLE:

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 Component Parts (Small #) Are Included
 When Ordering The Assembly (Large #).

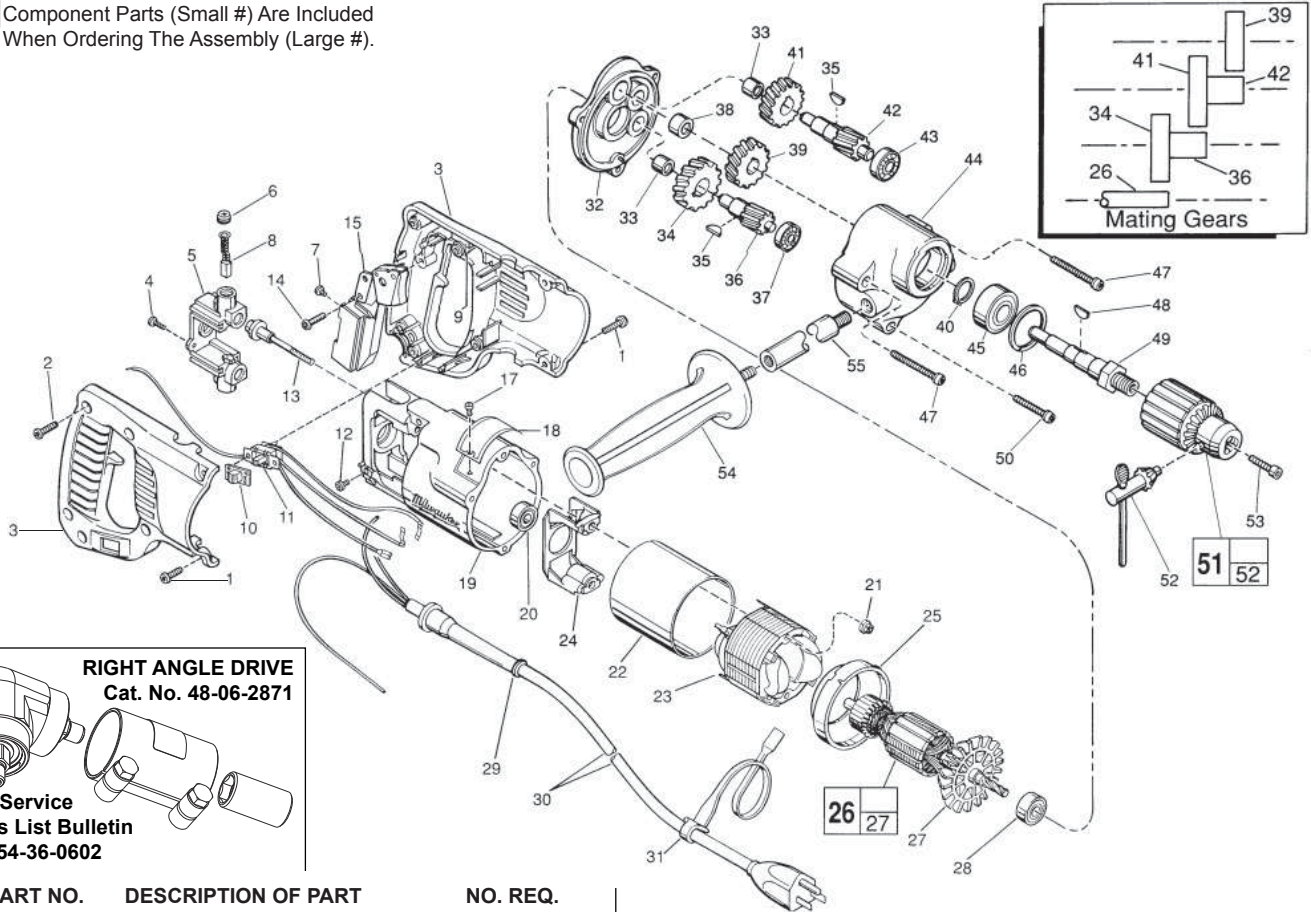


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	1	06-82-5316 8-32 x 1/2" Pan Hd. Slit. Taptite T-20	(4)
	2	06-82-7270 8-16 x 5/8" Pan Hd. Plastite T-20	(5)
	3	31-44-1680 Right and Left Handle Halves	(1)
	4	06-95-0075 6-32 x 3/8" Truss Hd. Taptite T-10	(2)
	5	22-22-1380 Brush Holder Assembly	(1)
	6	23-44-0190 Brush Retaining Cap	(2)
★	7	05-78-0305 M3.5 x .6 x 7mm Slit. Pan Hd. T-15 Sems	(4)
	8	22-18-0910 Carbon Brush Assembly	(2)
	9	14-46-1001 Foam Pad Kit (10 Slugs)	(1)
	10	31-12-0196 Switch Cap	(1)
★	11	23-66-1871 Reversing Switch Assembly	(1)
	12	06-95-5150 6-32 x 1/4" Hex Hd. Taptite Sems	(1)
	13	06-81-1060 8-32 x 2-1/4" Field Bolt	(2)
	14	06-82-7270 8-16 x 5/8" Pan Hd. Plastite T-20	(1)
★	15	23-66-0177 On-Off Switch	(1)
	17	06-72-1720 Nameplate Rivet	(2)
	18	12-99-1750 Service Nameplate	(1)
	19	28-50-6220 Motor Housing	(1)
	20	02-04-0845 Ball Bearing	(1)
	21	06-57-2975 8-32 Flexlock Hex Nut	(1)
	22	23-16-0456 Field Insulator	(1)
	23	18-31-0600 120 V. Field	(1)
	24	31-55-0190 Coil Shield	(1)
	25	31-05-0055 Baffle	(1)
	26	16-30-0226 120 V. Armature	(1)
	27	22-84-0531 Fan Assembly	(1)
	28	02-04-0911 Ball Bearing	(1)
	29	44-76-0210 Cord Protector	(1)
★	30	22-64-3195 Cord Set	(1)
	31	48-66-4040 Key Holder	(1)
	32	28-28-0611 Diaphragm	(1)
	33	02-50-1640 Needle Bearing	(2)
	34	32-40-1251 Intermediate Gear	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	35	06-42-0800 Woodruff Key	(2)
	36	36-66-2811 Intermediate Shaft	(1)
	37	02-04-0640 Ball Bearing	(1)
	38	02-50-2440 Needle Bearing	(1)
	39	32-75-3470 Spindle Gear	(1)
	40	34-60-1200 Retaining Ring	(1)
	41	32-75-2051 2nd Intermediate Gear	(1)
	42	36-66-9670 2nd Intermediate Shaft	(1)
	43	02-04-0820 Ball Bearing	(1)
	44	28-14-1922 Gear Case	(1)
	45	02-04-1536 Ball Bearing	(1)
	46	34-80-2500 Retaining Ring	(1)
	47	06-82-5532 8-32 x 2-1/2" Pan Hd. Taptite T-20	(2)
	48	06-42-2000 Woodruff Key	(1)
	49	38-50-5475 Spindle	(1)
	50	06-82-5432 8-32 x 1-5/8" Pan Hd. Taptite T-20	(1)
	51	48-66-1360 1/2" Chuck	(1)
	52	48-66-3280 Chuck Key	(1)
	53	06-75-3150 1/4-20 x 1" L.H. Skt. Hd. Cap Screw	(1)
	54	43-62-1265 Side Handle	(1)
	55	43-62-1170 Side Handle Extension	(1)
		10-98-5986 Warning Label (Not shown)	(1)

FIG. LUBRICATION:
 44 3-3/4 Oz. Type "A" Grease, No. 49-08-0800.

FIG. NOTES:
 54 Apply Red Loctite To Threads Of Side Handle.



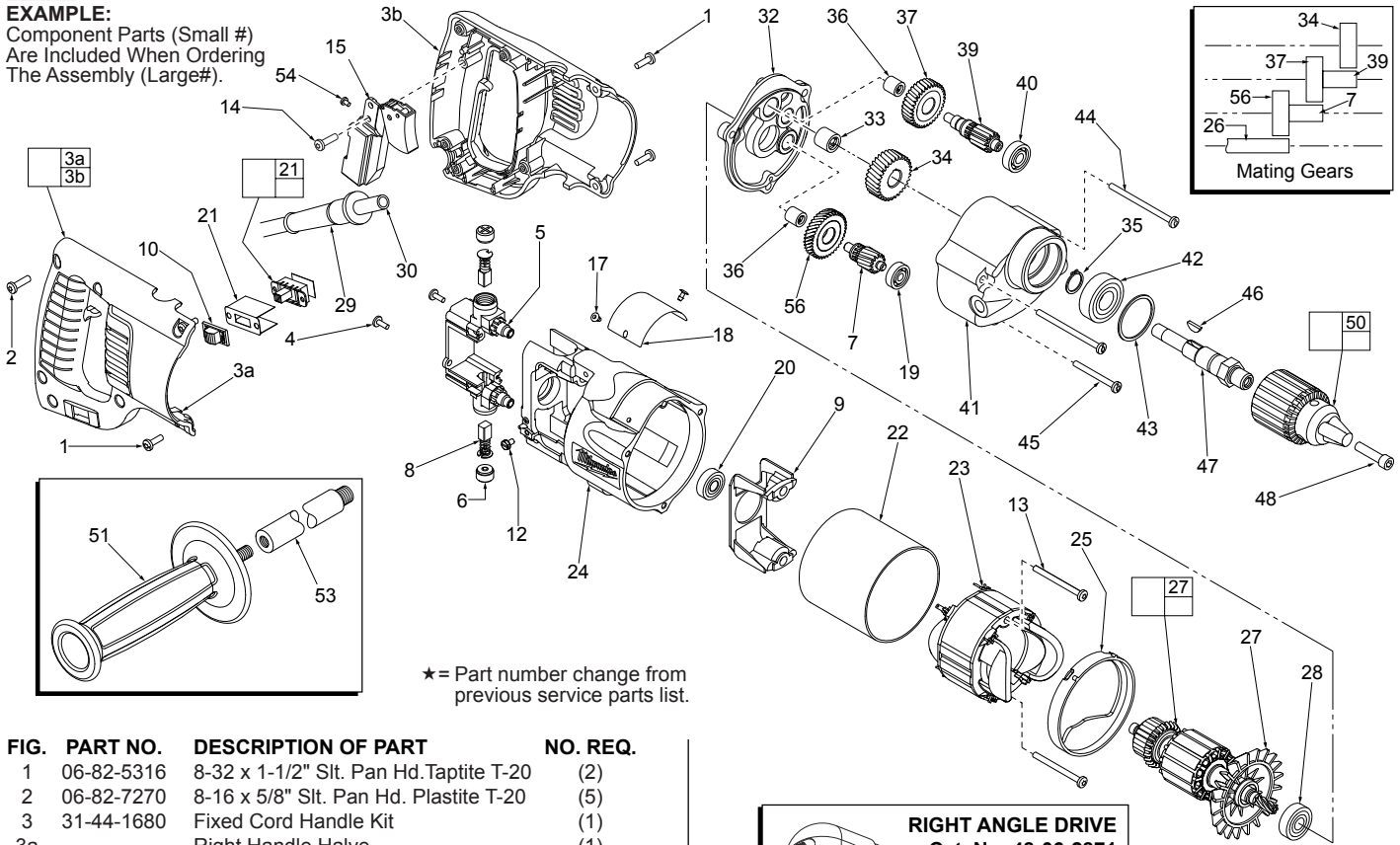
SERVICE PARTS LIST

BULLETIN NO.
54-08-1196

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1195	DATE Jan. 2013
1/2" REVERSING DRILL			
CATALOG NO.	1101-1	STARTING SERIAL NO.	493G
			WIRING INSTRUCTION 58-01-0224

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EXAMPLE:
Component Parts (Small #)
Are Included When Ordering
The Assembly (Large#).



★ = Part number change from previous service parts list.

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	06-82-5316	8-32 x 1-1/2" Slit. Pan Hd. Taptite T-20	(2)
2	06-82-7270	8-16 x 5/8" Slit. Pan Hd. Plastite T-20	(5)
3	31-44-1680	Fixed Cord Handle Kit	(1)
3a	-----	Right Handle Halve	(1)
3b	-----	Left Handle Halve	(1)
4	06-95-0075	6-32 x 3/8" Truss Hd. Taptite	(2)
★ 5	22-22-1381	Brush Holder Assembly	(1)
6	23-44-0190	Brush Retaining Cap	(2)
★ 7	36-66-2812	Intermediate Shaft	(1)
8	22-18-0910	Carbon Brush Assembly	(2)
9	31-55-0190	Coil Shield	(1)
10	31-12-0196	Switch Cap	(1)
11	23-66-1871	Fwd./Rev. Switch Assembly	(1)
12	06-95-5150	6-32 x 1/4" Hex Hd. Taptite Sems	(1)
★ 13	06-82-7380	7-18 x 1-7/8" Pan Hd. Taptite T-20	(2)
14	06-82-7270	8-16 x 5/8" Slit. Pan Hd. Plastite T-20	(1)
15	23-66-0177	Switch	(1)
17	06-72-1700	Nameplate Rivet	(2)
18	12-99-1750	Service Nameplate	(1)
19	02-04-0640	Ball Bearing	(1)
20	02-04-0845	Ball Bearing	(1)
21	-----	Paper Insulator	(1)
22	23-16-0456	Field Insulator	(1)
23	18-31-0600	120 Volt Field - Auto Assembly	(1)
★ 24	28-50-6222	Motor Housing	(1)
25	31-05-0055	Baffle	(1)
26	16-30-0226	120 Volt Armature	(1)
27	22-84-0531	Fan Assembly	(1)
28	02-04-0911	Ball Bearing	(1)
29	44-76-0210	Cord Protector	(1)
30	22-64-3190	Cord Set	(1)
31	48-66-4040	Key Holder (Not Shown))	(1)
32	28-28-0611	Diaphragm	(1)
33	02-50-2440	Needle Bearing	(1)
34	32-75-3470	Spindle Gear	(1)
35	34-60-1200	Retaining Ring	(1)
36	02-50-1640	Needle Bearing	(2)
★ 37	32-75-2052	2nd Intermediate Gear	(1)

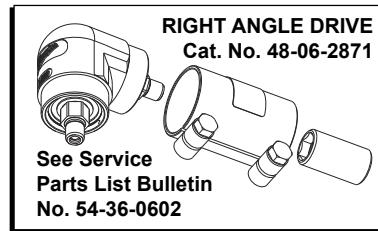


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★ 39	36-66-9671	2nd Intermediate Shaft	(1)
40	02-04-0820	Ball Bearing	(1)
41	28-14-1922	Gear Case	(1)
42	02-04-1536	Ball Bearing	(1)
43	34-80-2500	Retaining Ring	(1)
44	06-82-5532	8-32 x 2-1/2" Slit. Pan Hd. Taptite T-20	(2)
45	06-82-5432	8-32 x 1-5/8" Slit. Pan Hd. Taptite T-20	(1)
46	06-42-2000	Woodruff Key	(1)
47	38-50-5475	Spindle	(1)
48	06-75-3150	1/4-20 x 1" L.H. Skt. Cap Screw	(1)
★ 49	48-66-1355	1/2" Chuck	(1)
50	48-66-3280	Chuck Key (Not Shown)	(1)
51	43-62-1265	Side Handle	(1)
53	43-62-1170	Side Handle Extension	(1)
54	05-78-0120	Switch Screw	(4)
★ 56	32-40-1252	Intermediate Gear	(1)

FIG. LUBRICATION

41 3-3/4 Oz. Type "A" Grease, 49-08-0800.

FIG. NOTES:

51 Apply Red Loctite To Threads Of Side Handle.