



SERVICE PARTS LIST

1/2" DRILL

Catalog No. 1001-1

Starting Serial No. 491-1001

Specify Catalog and Serial No. when ordering parts

BUL. 54-08-1140

REVISED BUL.

WIRING INSTRUCTIONS
58-01-0215

600 R.P.M.

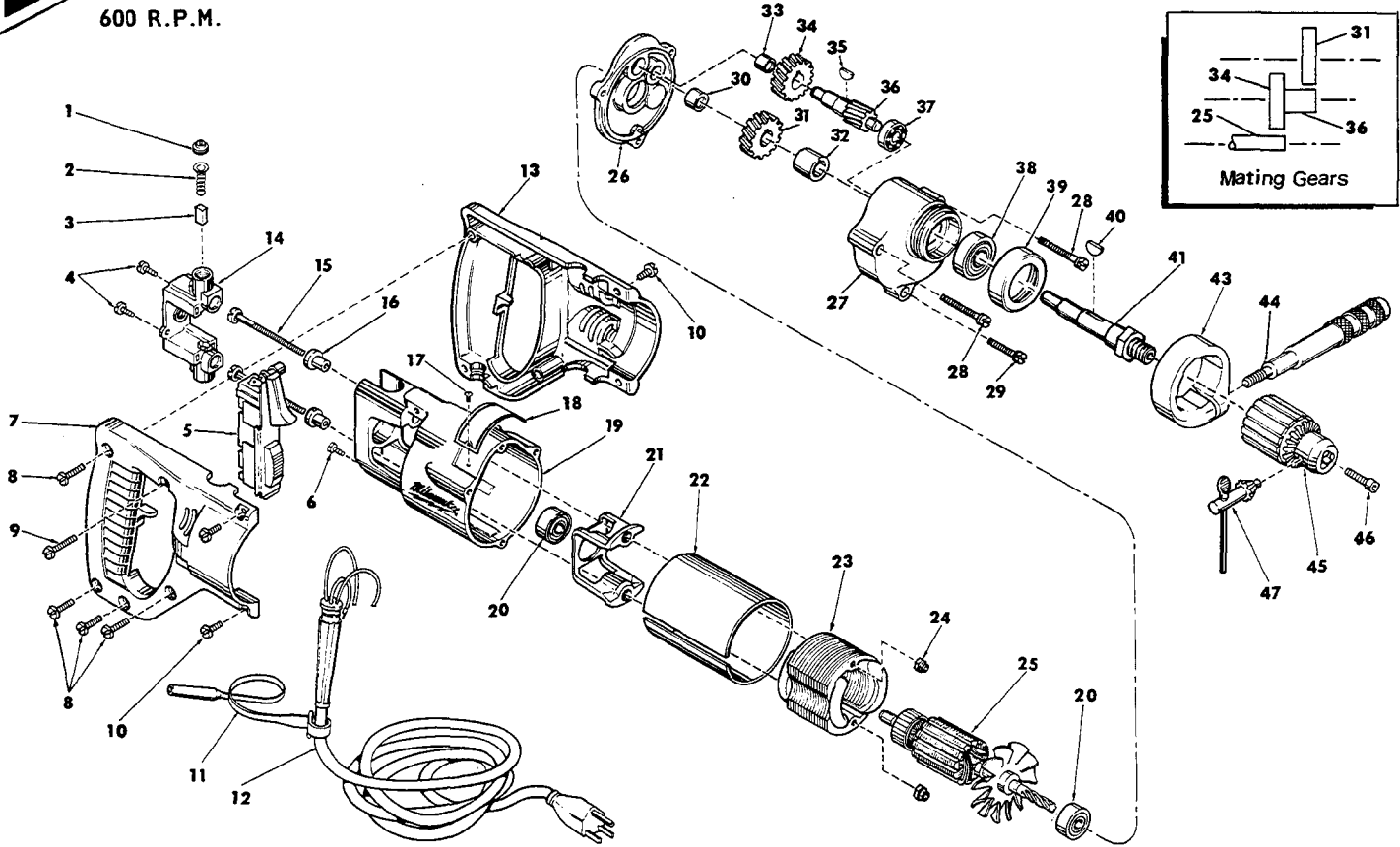


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	23-44-0120	Brush Retaining Screw	(2)	25	16-42-1415	115 V. Armature	(1)
2	23-52-0160	Brush Spring	(2)	26	28-28-0581	Diaphragm	(1)
3	22-16-0250	Carbon Brush	(2)	27	28-14-0681	Gear Case	(1)
4	06-81-5475	6-32x3/8 Binding Hd. Sem	(2)	28	06-81-6705	8-32x1-7/8 Fil. Hd. Sem	(2)
5	23-66-0751	Switch	(1)	29	06-81-6400	8-32x1-1/8 Fil. Hd. Sem	(1)
6	06-81-8625	6-32x1/4 Ground Screw	(1)	30	02-50-2110	Needle Bearing	(1)
7	31-44-0320	R.H. Half D Handle	(1)	31	32-75-1601	Spindle Gear	(1)
8	06-81-0400	8-32x3/4 Pan Hd. Screw	(4)	32	45-36-0210	Spindle Gear Spacer	(1)
9	06-81-0470	8-32x1 Pan Hd. Screw	(1)	33	02-50-1640	Needle Bearing	(1)
10	06-81-0045	8-32x1/2 Pan Hd. Screw	(4)	34	32-40-1241	Intermediate Gear	(1)
11	48-66-4040	Key Holder	(1)	35	06-42-0800	Woodruff Key	(1)
12	22-64-0385	Cord Set	(1)	36	36-66-2001	Intermediate Shaft	(1)
13	31-44-0321	L.H. Half D Handle	(1)	37	02-04-0640	Ball Bearing	(1)
14	22-22-0300	Brush Holder Assembly	(1)	38	02-04-1560	Ball Bearing	(1)
15	06-81-1050	8-32x2-7/16 Field Bolt	(2)	39	42-52-0071	Bearing Cap	(1)
16	31-86-0120	Insulating Spacer	(2)	40	06-42-1600	Woodruff Key	(1)
17	06-85-0200	6x1/4 Rd. Hd. Type Z Screw	(2)	41	38-50-3651	Spindle	(1)
18	12-99-0030	Nameplate	(1)	42	49-15-0200	Side Handle Assy. (Includes Fig. Nos. 43 & 44)	(1)
19	28-50-6141	Motor Housing	(1)	43	28-82-0130	Handle Ring	(1)
20	02-04-0940	Ball Bearing	(2)	44	43-62-0160	Side Handle	(1)
21	31-55-0080	Coil Shield	(1)	45	48-66-1360	1/2" Chuck (Includes Fig. 47)	(1)
22	23-16-0435	Field Insulator	(1)	46	06-75-3150	1/4-20x1 L.H. Skt. Cap Screw	(1)
23	18-42-1040	115 V. Field	(1)	47	48-66-3280	Chuck Key	(1)
24	06-57-2975	8-32 Flexlock Hex Nut	(2)				



SERVICE PARTS LIST

BUL. 54-08-1141

1/2" DRILL

REVISED BUL.

54-08-1140

Catalog No. 1001-1

Starting
Serial No. **491-2101**

WIRING INSTRUCTIONS
58-01-0216

Specify Catalog and Serial No. when ordering parts

600 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

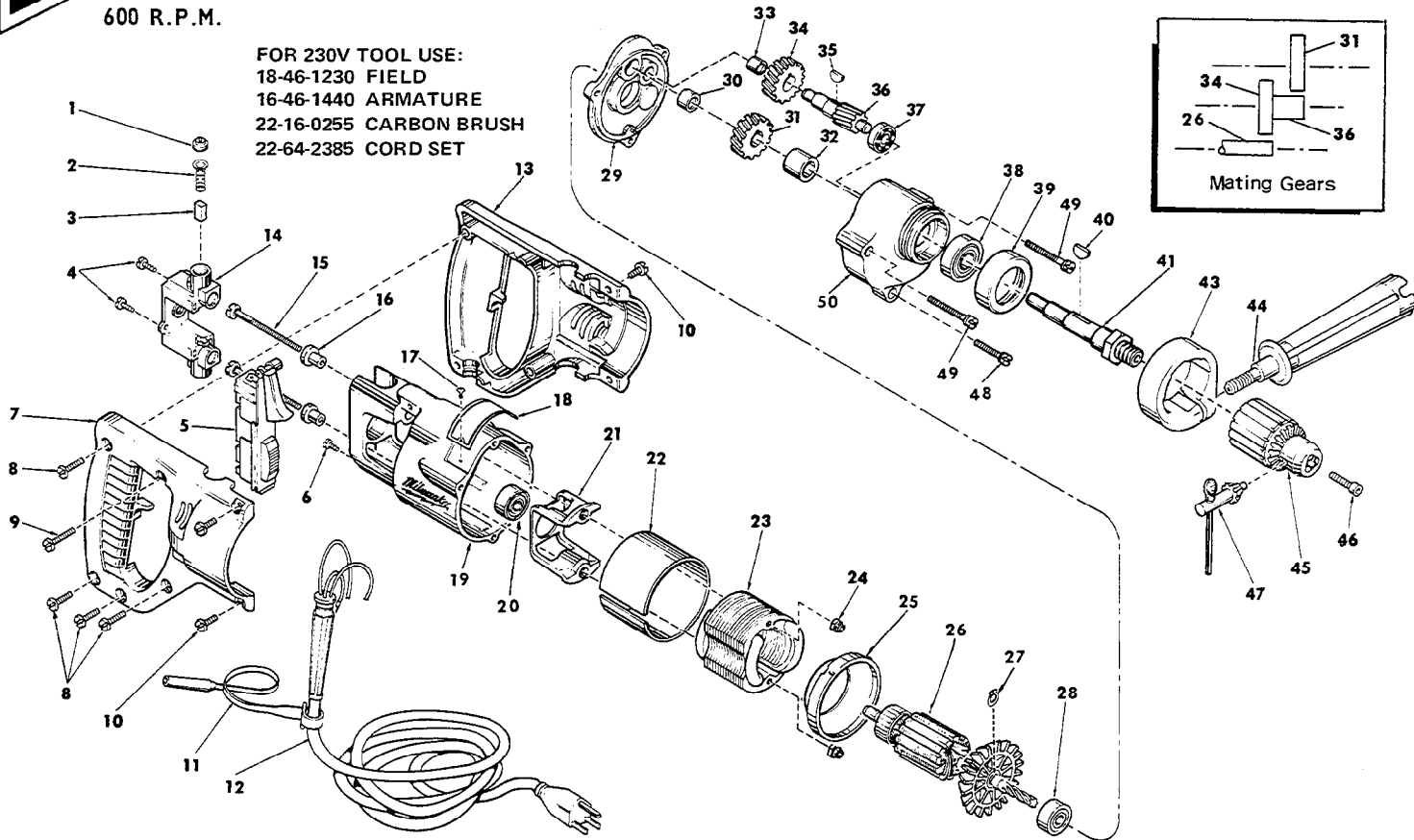
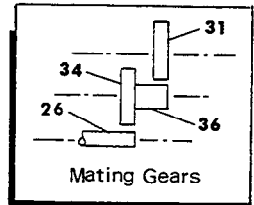


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	23-44-0120	Brush Retaining Screw	(2)	27	34-60-0700	Snap Ring	(1)
2	23-52-0160	Brush Spring	(2)	28	02-04-0940	Ball Bearing	(1)
3	22-16-0250	Carbon Brush	(2)	★ 29	28-28-0582	Diaphragm	(1)
4	06-81-5475	6-32x3/8 Binding Hd. Sem	(2)	30	02-50-2110	Needle Bearing	(1)
5	23-66-0751	Switch	(1)	31	32-75-1601	Spindle Gear	(1)
6	06-81-8625	6-32x1/4 Ground Screw	(1)	32	45-36-0210	Spindle Gear Spacer	(1)
7	31-44-0320	R.H. Half D Handle	(1)	33	02-50-1640	Needle Bearing	(1)
8	06-81-0400	8-32x3/4 Pan Hd. Screw	(4)	34	32-40-1241	Intermediate Gear	(1)
9	06-81-0470	8-32x1 Pan Hd. Screw	(1)	35	06-42-0800	Woodruff Key	(1)
10	06-81-0045	8-32x1/2 Pan Hd. Screw	(4)	36	36-66-2001	Intermediate Shaft	(1)
11	48-66-4040	Key Holder	(1)	37	02-04-0640	Ball Bearing	(1)
12	22-64-0385	Cord Set	(1)	38	02-04-1560	Ball Bearing	(1)
13	31-44-0321	L.H. Half D Handle	(1)	39	42-52-0071	Bearing Cap	(1)
14	22-22-0300	Brush Holder Assembly	(1)	40	06-42-1600	Woodruff Key	(1)
15	06-81-1050	8-32x2-7/16 Field Bolt	(2)	41	38-50-3651	Spindle	(1)
16	31-86-0120	Insulating Spacer	(2)	42	49-15-0200	Side Handle Assy. (Includes Fig. Nos. 43 & 44)	(1)
17	06-85-0200	6x1/4 Rd. Hd. Type Z Screw	(2)	★ 43	28-82-0130	Handle Ring	(1)
18	12-99-0030	Nameplate	(1)	★ 44	43-62-0550	Side Handle	(1)
★ 19	28-50-6147	Motor Housing	(1)	45	48-66-1360	1/2" Chuck (Includes Fig. 47)	(1)
★ 20	02-04-0891	Ball Bearing	(1)	46	06-75-3150	1/4-20x1 L.H. Skt. Cap Screw	(1)
★ 21	31-55-0080	Coil Shield	(1)	47	48-66-3280	Chuck Key	(1)
★ 22	23-16-0455	Field Insulator	(1)	48	06-81-6400	8-32x1-1/8 Fil. Hd. Sem	(1)
★ 23	18-42-1230	115 V. Field	(1)	49	06-81-6705	8-32x1-7/8 Fil. Hd. Sem	(2)
★ 24	06-57-2975	8-32 Flexlock Hex Nut	(2)	50	28-14-0681	Gear Case	(1)
★ 25	31-05-0050	Baffle	(1)	★ 51	12-98-7081	Caution Plate (Not Shown)	
★ 26	16-42-1440	115 V. Armature (Incls. Fig. No. 27)	(1)				



SERVICE PARTS LIST

BUL. 54-08-1142

1/2" REVERSING DRILL

REVISED BUL.
54-08-1141

Catalog No. 1001-1

Starting
Serial No. **491-21236**

WIRING INSTRUCTIONS
58-01-0218

Specify Catalog and Serial No. when ordering parts

600 R.P.M.
4.5 AMPS

FOR CAT. NO. 1001-3
(240V) TOOL USE:
18-36-0200 FIELD
16-36-0305 ARMATURE
22-16-0255 CARBON BRUSH
22-64-4100 CORD SET

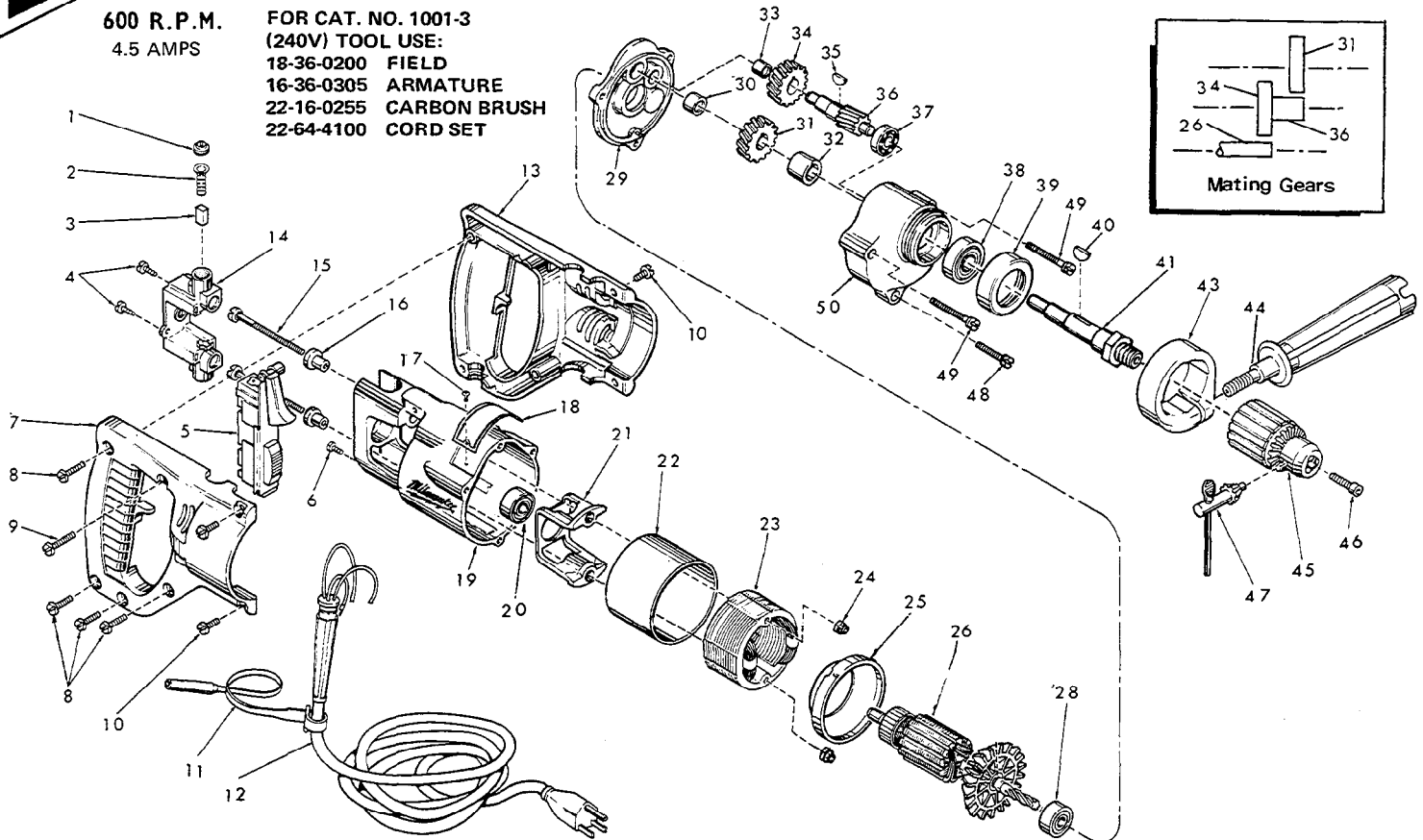


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	23-44-0120	Brush Retaining Screw	(2)	28	02-04-0940	Ball Bearing	(1)
2	23-52-0160	Brush Spring	(2)	29	28-28-0582	Diaphragm	(1)
3	22-16-0250	Carbon Brush	(2)	30	02-50-2110	Needle Bearing	(1)
4	06-81-5477	6-32x3/8 Phillips Pan Hd. Sem	(2)	31	32-75-1601	Spindle Gear	(1)
5	23-66-0751	Switch	(1)	32	45-36-0210	Spindle Gear Spacer	(1)
6	06-81-8625	6-32x1/4 Ground Screw	(1)	33	02-50-1640	Needle Bearing	(1)
★ 7	31-44-0326	R.H. Half D Handle	(1)	34	32-40-1241	Intermediate Gear	(1)
8	06-81-0402	8-32x3/4 Pan Hd. Screw	(4)	35	06-42-0800	Woodruff Key	(1)
9	06-81-0472	8-32x1 Pan Hd. Screw	(1)	36	36-66-2001	Intermediate Shaft	(1)
10	06-81-0047	8-32x1/2 Pan Hd. Screw	(4)	37	02-04-0640	Ball Bearing	(1)
11	48-66-4040	Key Holder	(1)	38	02-04-1560	Ball Bearing	(1)
12	22-64-0385	Cord Set	(1)	39	42-52-0071	Bearing Cap	(1)
13	31-44-0321	L.H. Half D Handle	(1)	40	06-42-1600	Woodruff Key	(1)
14	22-22-0300	Brush Holder Assembly	(1)	41	38-50-3651	Spindle	(1)
★ 15	06-81-1055	8-32x2-3/16 Field Bolt	(2)	42	49-15-0200	Side Handle Assy. (Includes Fig. Nos. 43 & 44)	(1)
16	31-86-0120	Insulating Spacer	(2)	43	28-82-0130	Handle Ring	(1)
17	06-85-0200	6x1/4 Rd. Hd. Type Z Screw	(2)	44	43-62-0550	Side Handle	(1)
18	12-99-0030	Nameplate	(1)	45	48-66-1360	1/2" Chuck (Includes Fig. 47)	(1)
19	28-50-6147	Motor Housing	(1)	46	06-75-3150	1/4-20x1 L.H. Skt. Cap Screw	(1)
20	02-04-0891	Ball Bearing	(1)	47	48-66-3280	Chuck Key	(1)
★ 21	31-55-0030	Coil Shield	(1)	48	06-81-6402	8-32x1-1/8 Fil. Hd. Sem	(1)
★ 22	23-16-0456	Field Insulator	(1)	49	06-81-6707	8-32x1-7/8 Fil. Hd. Sem	(2)
★ 23	18-30-0200	120 V. Field	(1)	50	28-14-0681	Gear Case	(1)
24	06-57-2975	8-32 Flexlock Hex Nut	(2)	51	12-98-7081	Caution Plate (Not Shown)	(1)
25	31-05-0050	Baffle	(1)				
★ 26	16-30-0305	120 V. Armature	(1)				



SERVICE PARTS LIST

BUL. 54-08-1143	
REVISED BUL. 54-08-1142	
WIRING INSTRUCTIONS 58-01-0244	

1/2" REVERSING DRILL

Catalog No. 1001-1

Starting
Serial No. **491-62800**

Specify Catalog and Serial No. when ordering parts

600 R.P.M.
4.5 AMPS

FOR CAT. NO. 1001-3
(240V) TOOL USE:
18-36-0200 FIELD
16-36-0305 ARMATURE
22-16-0255 CARBON BRUSH
22-64-4100 CORD SET

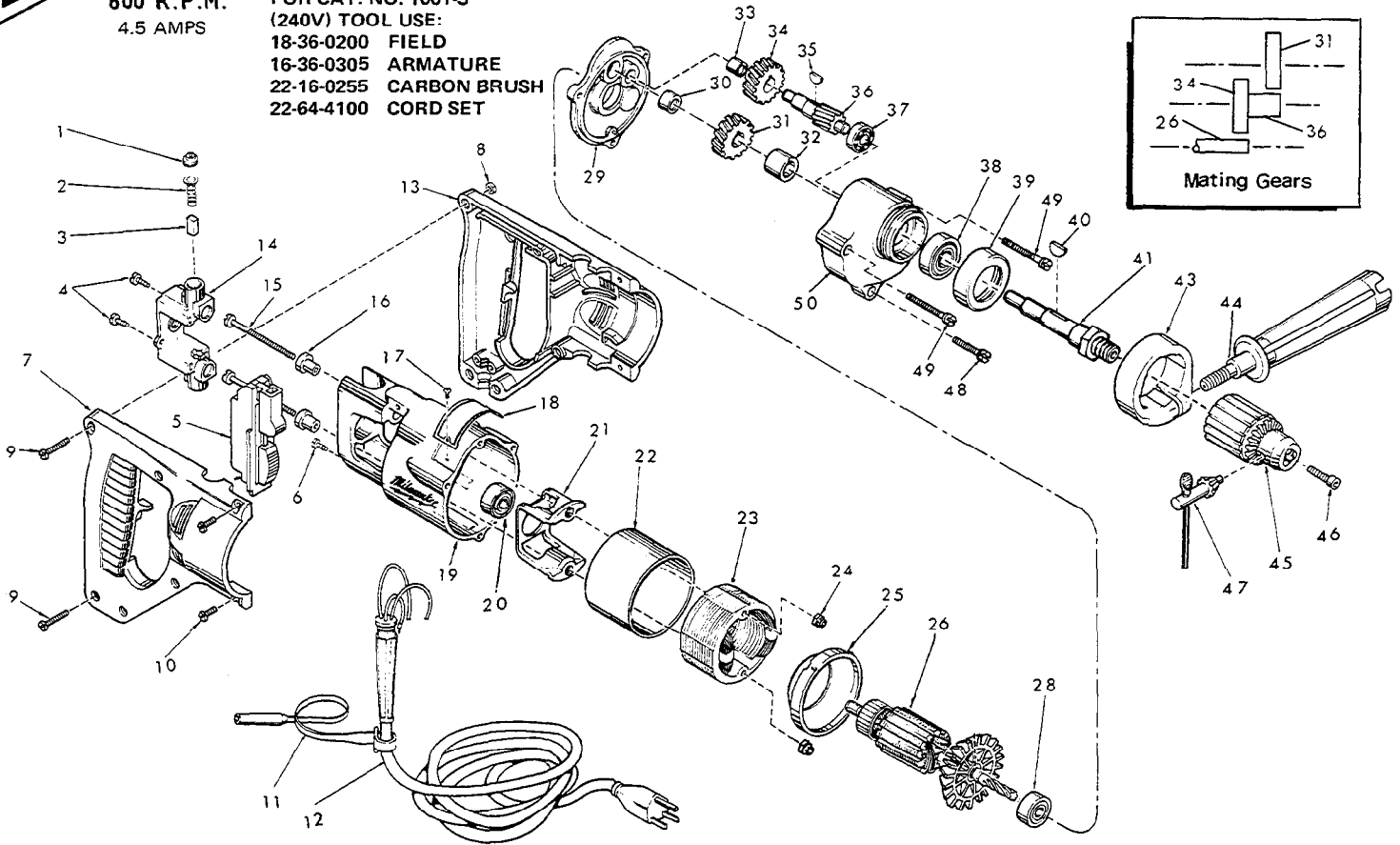


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	23-44-0120	Brush Retaining Screw	(2)	28	02-04-0940	Ball Bearing	(1)
2	23-52-0160	Brush Spring	(2)	29	28-28-0582	Diaphragm	(1)
3	22-16-0250	Carbon Brush	(2)	30	02-50-2110	Needle Bearing	(1)
4	06-81-5477	6-32x3/8 Phillips Pan Hd. Sem	(2)	31	32-75-1601	Spindle Gear	(1)
★ 5	23-66-1020	Switch	(1)	32	45-36-0210	Spindle Gear Spacer	(1)
6	06-81-8625	6-32x1/4 Ground Screw	(1)	33	02-50-1640	Needle Bearing	(1)
★ 7	31-44-0565	R.H. Half D Handle	(1)	34	32-40-1241	Intermediate Gear	(1)
★ 8	06-55-0825	8-32 Hex Nut	(5)	35	06-42-0800	Woodruff Key	(1)
9	06-81-0472	8-32x1 Pan Hd. Screw	(5)	36	36-66-2001	Intermediate Shaft	(1)
10	06-81-0047	8-32x1/2 Pan Hd. Screw	(4)	37	02-04-0640	Ball Bearing	(1)
11	48-66-4040	Key Holder	(1)	38	02-04-1560	Ball Bearing	(1)
★ 12	22-64-0405	Cord Set	(1)	39	42-52-0071	Bearing Cap	(1)
★ 13	31-44-0575	L.H. Half D Handle	(1)	40	06-42-1600	Woodruff Key	(1)
★ 14	22-22-0302	Brush Holder Assembly	(1)	41	38-50-3651	Spindle	(1)
15	06-81-1055	8-32x2-3/16 Field Bolt	(2)	42	49-15-0200	Side Handle Assy. (Includes Fig. Nos. 43 & 44)	(1)
16	31-86-0120	Insulating Spacer	(2)	43	28-82-0130	Handle Ring	(1)
17	06-85-0200	6x1/4 Rd. Hd. Type Z Screw	(2)	44	43-62-0550	Side Handle	(1)
18	12-99-0030	Nameplate	(1)	45	48-66-1360	1/2" Chuck (Includes Fig. 47)	(1)
19	28-50-6147	Motor Housing	(1)	46	06-75-3150	1/4-20x1 L.H. Skt. Cap Screw	(1)
20	02-04-0891	Ball Bearing	(1)	47	48-66-3280	Chuck Key	(1)
21	31-55-0030	Coil Shield	(1)	48	06-81-6402	8-32x1-1/8 Fil. Hd. Sem	(1)
22	23-16-0456	Field Insulator	(1)	49	06-81-6707	8-32x1-7/8 Fil. Hd. Sem	(2)
23	18-30-0200	120 V. Field	(1)	50	28-14-0681	Gear Case	(1)
24	06-57-2975	8-32 Flexlock Hex Nut	(2)	51	12-98-7081	Caution Plate (Not Shown)	(1)
25	31-05-0050	Baffle	(1)				
26	16-30-0305	120 V. Armature	(1)				



SERVICE PARTS LIST

BULLETIN NO.
54-08-1144

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1143
1/2" REVERSING DRILL		
CATALOG NO. 1001-1	STARTING SERIAL NO. 491-69475	WIRING INSTRUCTION 58-01-0244
CAT. NO. 1001-6	START SER. NO. 491-69475	BILINGUAL LABEL 10-98-6400

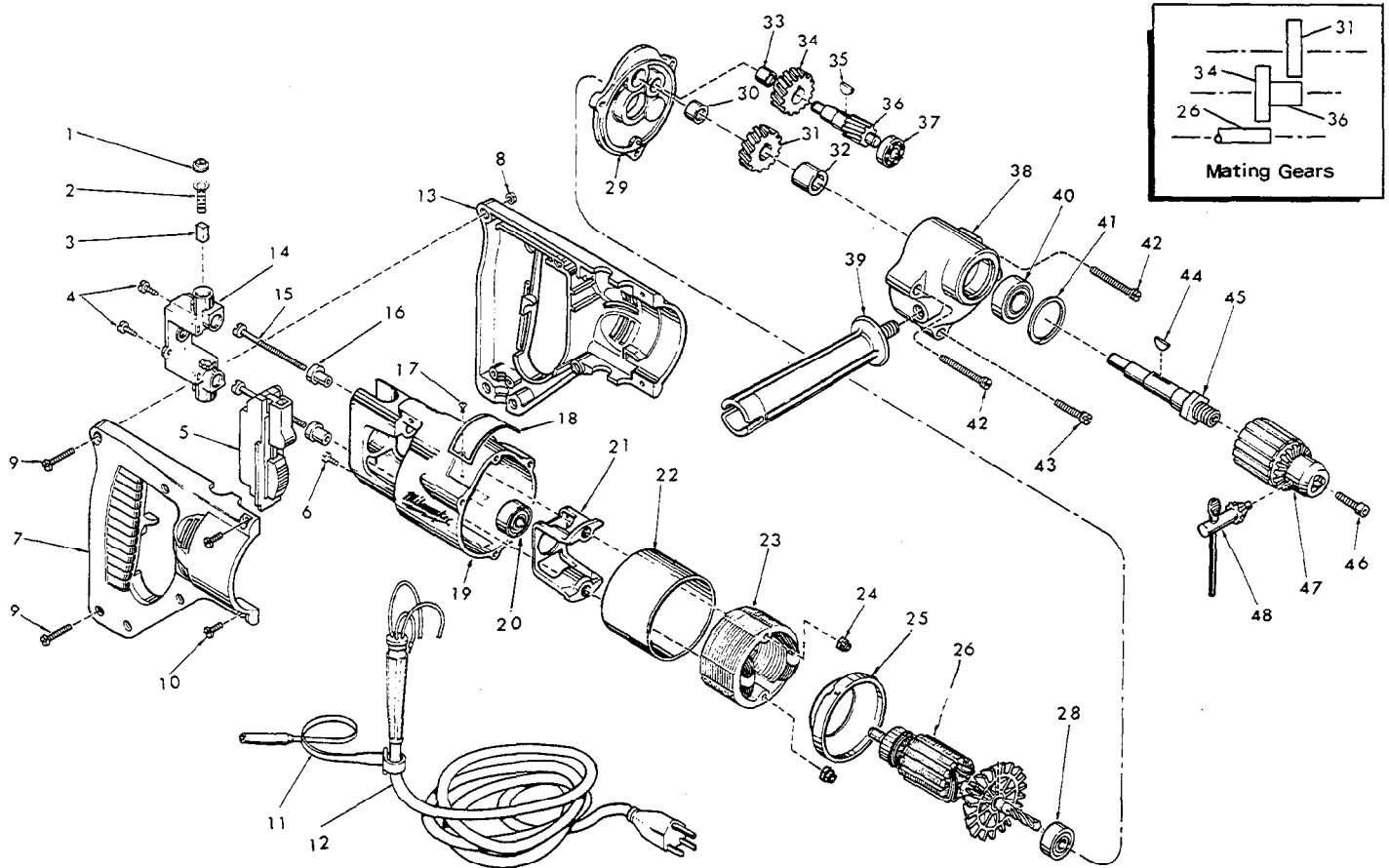


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	23-44-0120	Brush Retaining Screw	(2)	25	31-05-0050	Baffle	(1)
2	23-52-0160	Brush Spring	(2)	★26	16-30-0320	120 V. Armature	(1)
3	22-16-0250	Carbon Brush	(2)	★27	10-98-5987	Warning Label (Not Shown)	(1)
★4	06-95-0116	6-32 x 5/8" Pan Hd. Taptite Screw	(2)			Omit For Canadian Tools	
5	23-66-1020	Switch	(1)	28	02-04-0940	Ball Bearing	(1)
★6	06-95-5150	Ground Screw	(1)	29	28-28-0582	Diaphragm	(1)
7	31-44-0565	R.H. Half D Handle	(1)	30	02-50-2110	Needle Bearing	(1)
★8	06-55-0835	8-32 Hex Nut	(5)	31	32-75-1601	Spindle Gear	(1)
★9	06-81-0473	8-32 x 1" Pan Hd. Pozidriv Screw	(5)	32	45-36-0210	Spindle Gear Spacer	(1)
★10	06-95-0700	8-32 x 1/2" Pan Hd. Taptite Screw	(4)	33	02-50-1640	Needle Bearing	(1)
11	48-66-4040	Key Holder	(1)	34	32-40-1241	Intermediate Gear	(1)
12	22-64-0405	Cord Set	(1)	35	06-42-0800	Woodruff Key	(1)
13	31-44-0575	L.H. Half D Handle	(1)	36	36-66-2001	Intermediate Shaft	(1)
14	22-22-0302	Brush Holder Assembly	(1)	37	02-04-0640	Ball Bearing	(1)
15	06-81-1055	8-32x2-3/16 Field Bolt	(2)	★38	28-14-0686	Gear Case	(1)
16	31-86-0120	Insulating Spacer	(2)	★39	43-62-0605	Side Handle	(1)
17	06-85-0200	6x1/4 Rd. Hd. Type Z Screw	(2)	40	02-04-1560	Ball Bearing	(1)
18	12-99-0030	Nameplate	(1)	★41	34-80-2500	Retaining Ring	(1)
19	28-50-6147	Motor Housing	(1)	42	06-81-6707	8-32x1-7/8 Fil. Hd. Sem	(2)
20	02-04-0891	Ball Bearing	(1)	43	06-81-6402	8-32x1-1/8 Fil Hd. Sem	(1)
21	31-55-0030	Coil Shield	(1)	44	06-42-1600	Woodruff Key	(1)
22	23-16-0456	Field Insulator	(1)	45	38-50-3651	Spindle	(1)
23	18-30-0200	120 V. Field	(1)	46	06-75-3150	1/4-20x1 L.H. Skt. Cap Screw	(1)
24	06-57-2975	8-32 Flexlock Hex Nut	(2)	47	48-66-1360	1/2" Chuck (Includes Fig. 48)	(1)
				48	48-66-3280	Chuck Key	(1)



SERVICE PARTS LIST

BULLETIN NO.
54-08-1145

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1144
1/2" REVERSING DRILL		
CATALOG NO. 1001-1	STARTING SERIAL NO. 491-152000	WIRING INSTRUCTION 58-01-0244
CAT. NO. 1001-6	START SER. NO. 491-152000	BILINGUAL LABEL 10-98-6400

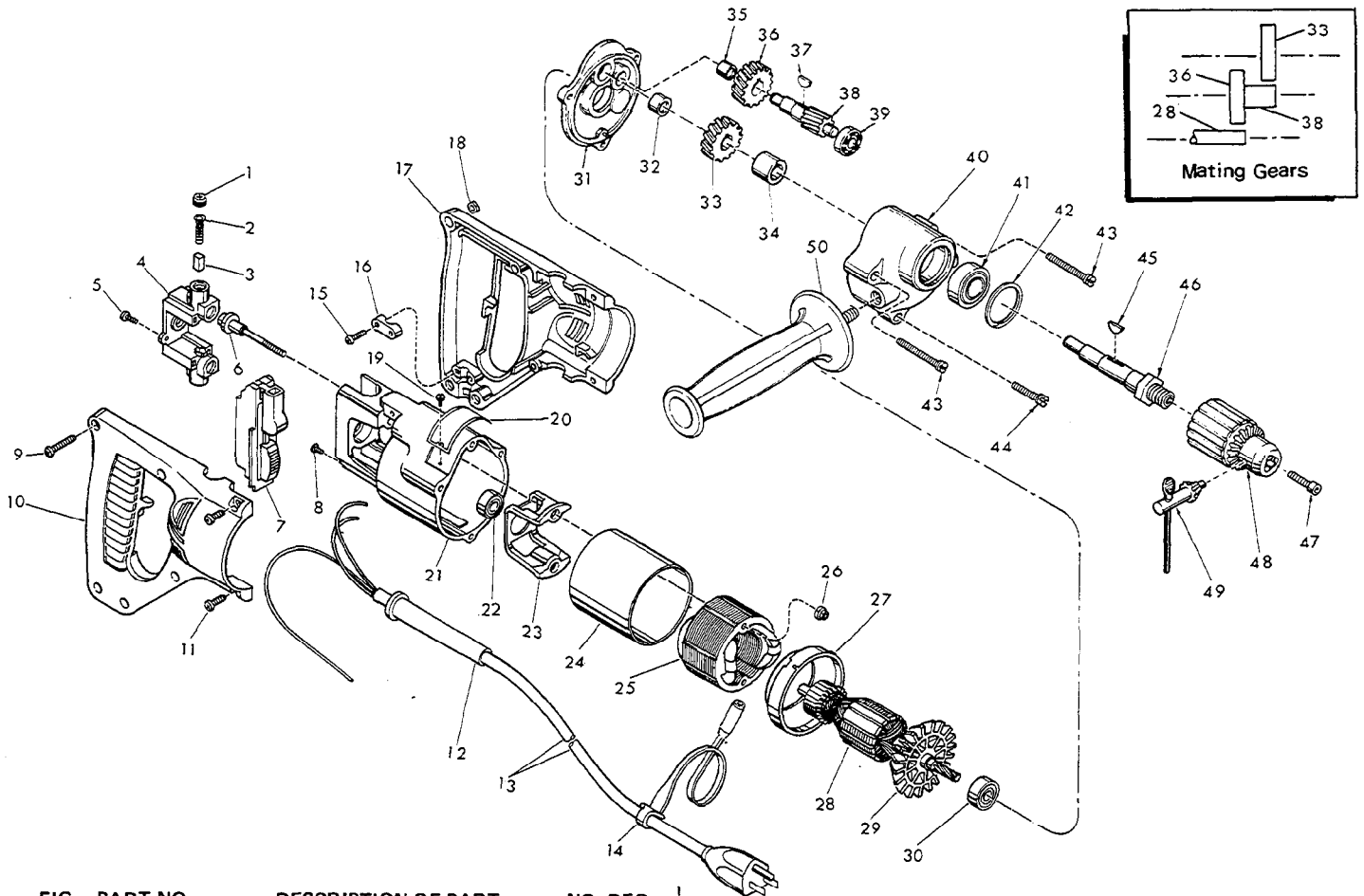


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★ 1	23-44-0190	Brush Retaining Screw	(2)
2	23-52-0160	Brush Spring	(2)
★ 3	22-16-0275	Carbon Brush	(2)
★ 4	22-22-1330	Brush Holder Assembly	(1)
★ 5	06-95-0075	6-32 x 3/8 Trus Hd. Taptite Screw	(2)
★ 6	06-81-1058	Insulated Field Bolt	(2)
7	23-66-1020	Switch	(1)
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. Taptite Screw	(4)
★ 12	44-76-0150	Cord Protector	(1)
★ 13	22-64-0155	Cord Set	(1)
14	48-66-4040	Key Holder	(1)
★ 15	06-95-0216	8-16 x 5/8" Plastite Screw	(2)
★ 16	31-17-0156	Cord Clamp	(1)
★ 17	31-44-1305	L.H. Half D Handle	(1)
18	06-55-0835	8-32 Hex Nut	(5)
19	06-85-0200	6 x 1/4 Rd. Hd. Type Z Screw	(2)
20	12-99-0030	Nameplate	(1)
★ 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)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★ 28	16-30-0325	120 V. Armature (Incl. Fig. No. 29)	(1)
29	22-84-0530	Fan Assembly	(1)
★ 30	02-04-0911	Ball Bearing	(1)
★ 31	28-28-0585	Diaphragm	(1)
32	02-50-2110	Needle Bearing	(1)
33	32-75-1601	Spindle Gear	(1)
34	45-36-0210	Spindle Gear Spacer	(1)
35	02-50-1640	Needle Bearing	(1)
36	32-40-1241	Intermediate Gear	(1)
37	06-42-0800	Woodruff Key	(1)
38	36-66-2001	Intermediate Shaft	(1)
39	02-04-0640	Ball Bearing	(1)
40	28-14-0686	Gear Case	(1)
41	02-04-1560	Ball Bearing	(1)
42	34-80-2500	Retaining Ring	(1)
★ 43	06-95-5270	8-32 x 1-7/8 Fil. Hd. Sem	(2)
★ 44	06-95-5250	8-32 x 1-1/8 Fil Hd. Sem	(1)
45	06-42-1600	Woodruff Key	(1)
46	38-50-3651	Spindle	(1)
47	06-75-3150	1/4-20 x 1 L.H. Skt. Cap Screw	(1)
48	48-66-1360	1/2" Chuck (Includes Fig. 49)	(1)
49	48-66-3280	Chuck Key	(1)
★ 50	43-62-0875	Side Handle	(1)



SERVICE PARTS LIST

BULLETIN NO.
54-08-1146

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1145
1/2" REVERSING DRILL		
CATALOG NO. 1001-1	STARTING SERIAL NO. 491-182000	WIRING INSTRUCTION 58-01-0244
CAT. NO.	START SER. NO.	BILINGUAL LABEL

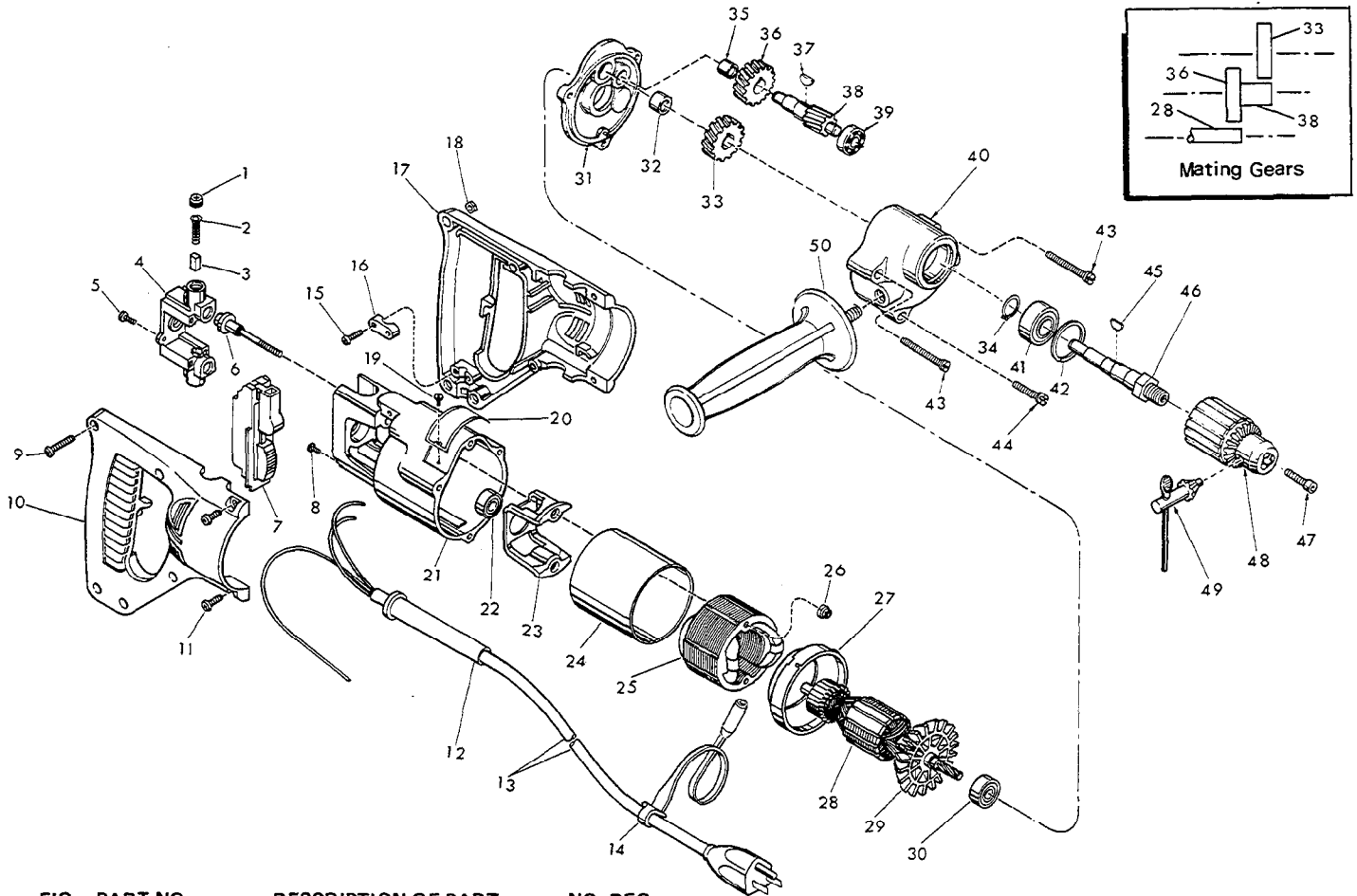


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	23-44-0190	Brush Retaining Screw	(2)	28	16-30-0325	120 V. Armature (Incl. Fig. No. 29)	(1)
2	23-52-0160	Brush Spring	(2)	29	22-84-0530	Fan Assembly	(1)
3	22-16-0275	Carbon Brush	(2)	30	02-04-0911	Ball Bearing	(1)
4	22-22-1330	Brush Holder Assembly	(1)	31	28-28-0585	Diaphragm	(1)
5	06-95-0075	6-32 x 3/8 Trus Hd. Taptite Screw	(2)	★ 32	02-50-2440	Needle Bearing	(1)
6	06-81-1058	Insulated Field Bolt	(2)	33	32-75-1601	Spindle Gear	(1)
7	23-66-1020	Switch	(1)	★ 34	34-60-1200	Retaining Ring	(1)
8	06-95-5150	Ground Screw	(1)	35	02-50-1640	Needle Bearing	(1)
9	06-81-0473	8-32 x 1" Pan Hd. Pozidriv Screw	(5)	36	32-40-1241	Intermediate Gear	(1)
10	31-44-1300	R.H. Half D Handle	(1)	37	06-42-0800	Woodruff Key	(1)
11	06-95-0700	8-32 x 1/2" Pan Hd. Taptite Screw	(4)	38	36-66-2001	Intermediate Shaft	(1)
12	44-76-0150	Cord Protector	(1)	39	02-04-0640	Ball Bearing	(1)
13	22-64-0155	Cord Set	(1)	40	28-14-0686	Gear Case	(1)
14	48-66-4040	Key Holder	(1)	★ 41	02-04-1536	Ball Bearing	(1)
15	06-95-0216	8-16 x 5/8" Plastite Screw	(2)	42	34-80-2500	Retaining Ring	(1)
16	31-17-0156	Cord Clamp	(1)	43	06-95-5270	8-32 x 1-7/8 Fil. Hd. Sem	(2)
17	31-44-1305	L.H. Half D Handle	(1)	44	06-95-5250	8-32 x 1-1/8 Fil Hd. Sem	(1)
18	06-55-0835	8-32 Hex Nut	(5)	45	06-42-1600	Woodruff Key	(1)
19	06-85-0200	6 x 1/4 Rd. Hd. Type Z Screw	(2)	★ 46	38-50-5470	Spindle	(1)
20	12-99-0030	Nameplate	(1)	47	06-75-3150	1/4-20 x 1 L.H. Skt. Cap Screw	(1)
21	28-50-6201	Motor Housing	(1)	48	48-66-1360	1/2" Chuck (Includes Fig. 49)	(1)
22	02-04-0845	Ball Bearing	(1)	49	48-66-3280	Chuck Key	(1)
23	31-55-0030	Coil Shield	(1)	50	43-62-0875	Side Handle	(1)
24	23-16-0456	Field Insulator	(1)	★ 51	10-98-5986	Warning Label (Not Shown)	(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)				



SERVICE PARTS LIST

BULLETIN NO.
54-08-1147

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1146	DATE
1/2" REVERSING DRILL		58-01-0212	
CATALOG NO. 1001-1	STARTING SERIAL NO. 491-193500	WIRING INSTRUCTION 58-01-0212	

EXAMPLE:

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

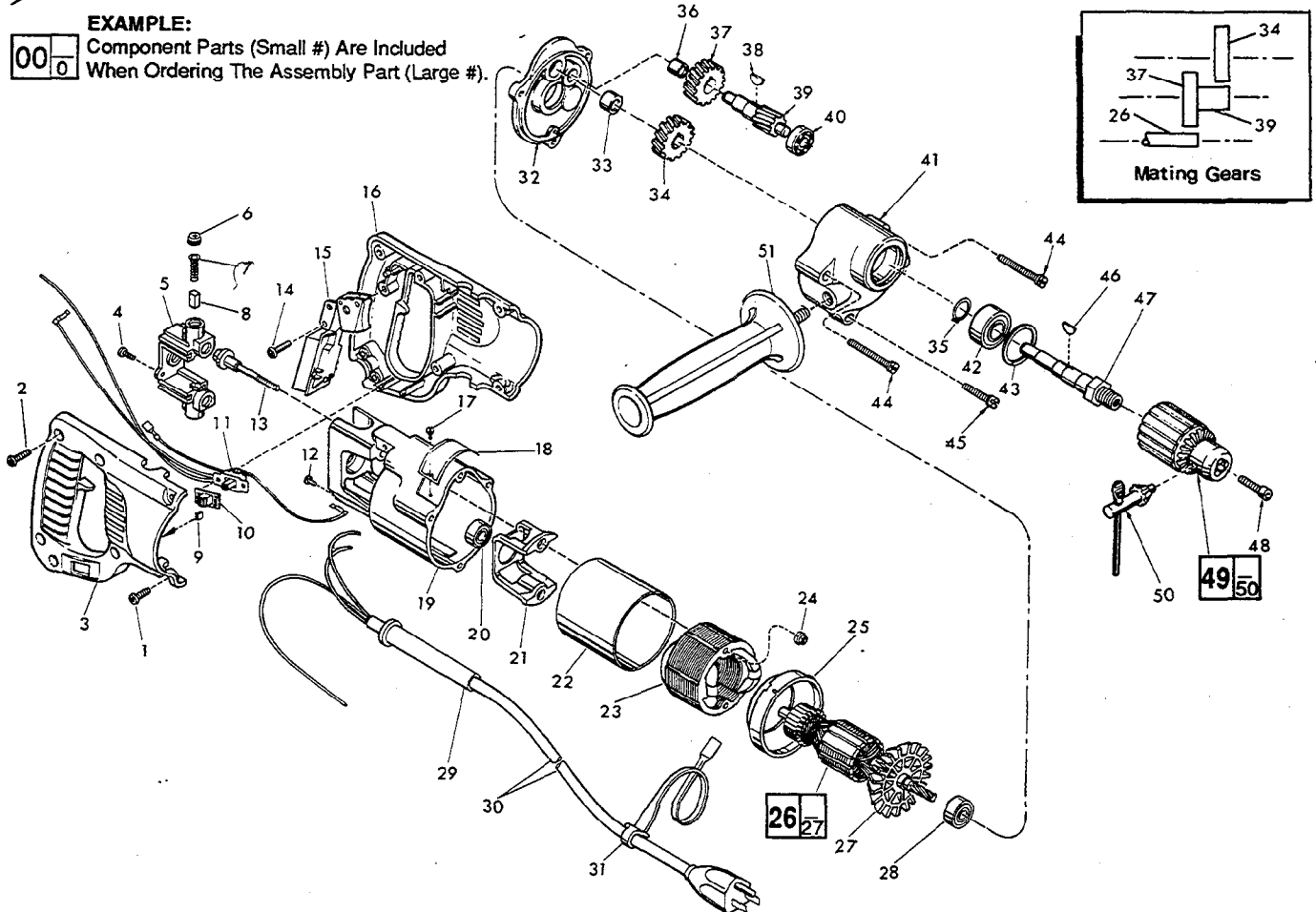


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★	1	06-82-5316 8-32x1/2" Slot Pan Hd. Torx Screw	(4)	30	22-64-0155	Cord Set	(1)
★	2	06-82-7260 7-18 x 5/8" Pan Hd. Plastite Torx Screw	(5)	31	48-66-4040	Key Holder	(1)
★	3	31-44-1466 Right Handle Half	(1)	★	32	28-28-0586 Diaphragm	(1)
	4	06-95-0075 6-32 x 3/8" Truss Hd. Tapatite Screw	(2)	33	02-50-2440	Needle Bearing	(1)
	5	22-22-1330 Brush Holder Assembly	(1)	34	32-75-1601	Spindle Gear	(1)
	6	23-44-0190 Brush Retaining Cap	(2)	35	34-60-1200	Retaining Ring	(1)
	7	23-52-0160 Brush Spring	(2)	36	02-50-1640	Needle Bearing	(1)
	8	22-16-0275 Carbon Brush	(2)	37	32-40-1241	Intermediate Gear	(1)
★	9	42-38-0240 Bumper	(2)	38	06-42-0800	Woodruff Key	(1)
★	10	31-12-0195 Switch Cap	(1)	39	36-66-2001	Intermediate Shaft	(1)
★	11	23-66-1453 Switch Assembly	(1)	40	02-04-0640	Ball Bearing	(1)
	12	06-95-5150 6-32 x 1/4" Hex Hd. Taptite Sems	(1)	★	41	28-14-1910 Gear Case	(1)
	13	06-81-1058 8-32 x 2.19 Field Bolt	(2)	42	02-04-1536	Ball Bearing	(1)
★	14	06-82-7260 7-18 x 5/8" Pan Hd. Plastite Torx Screw	(1)	43	34-80-2500	Retaining Ring	(1)
★	15	23-66-0167 On-Off Switch	(1)	★	44	06-82-5502 8-32 x 2-1/4" Pan Taptite Torx	(2)
★	16	31-44-1471 Left Handle Half	(1)	★	45	06-82-5404 8-32 x 1-3/8" Pan Taptite Torx	(1)
	17	06-85-0200 Nameplate Screw	(2)	46	06-42-1600	Woodruff Key	(1)
★	18	12-99-0043 Nameplate Blank	(1)	47	38-50-5470	Spindle	(1)
	19	28-50-6201 Motor Housing	(1)	★	48	06-75-3150 1/4-20 x 1 L.H. Skt. Cap Screw	(1)
	20	02-04-0845 Ball Bearing	(1)	49	48-66-1360	1/2" Chuck	(1)
	21	31-55-0030 Coil Shield	(1)	50	48-66-3280	Chuck Key	(1)
	22	23-16-0456 Field Insulator	(1)	51	43-62-0875	Side Handle	(1)
	23	18-30-0200 120 V. Field	(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)				

LUBRICATION:

41 3-1/4 Oz. Type "A" Grease, 49-08-0800.



SERVICE PARTS LIST

BULLETIN NO.
54-08-1148

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN
1/2" REVERSING DRILL		54-08-1147
CATALOG NO. 1001-1	STARTING SERIAL NO. 491-230000	WIRING INSTRUCTION
		58-01-0770

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

00 0

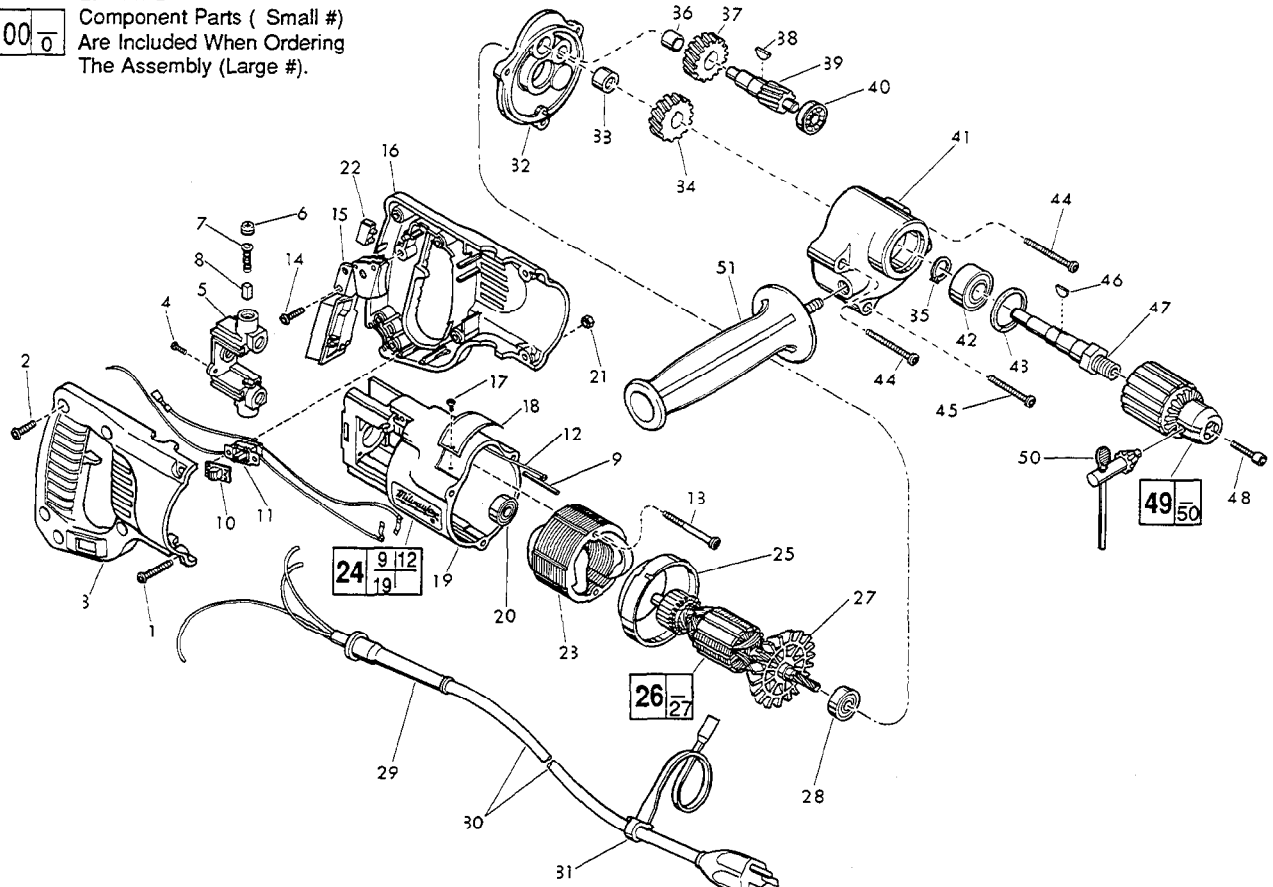


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.		
*	1	06-82-5390	8-32x1-1/4" Slot Pan Hd. Taprite Torx Screw	(2)	30	22-64-0155	Cord Set	(1)	
	2	06-82-7260	7-18 x 5/8" Pan Hd. Plastite Torx Screw	(5)	31	48-66-4040	Key Holder	(1)	
	3	31-44-1466	Right Handle Half	(1)	*	32	28-28-0601	Diaphragm	(1)
*	4	06-82-7240	6-19 x 1/2" Slit. Pan Hd. Plast. Torx Screw	(2)	33	02-50-2440	Needle Bearing	(1)	
	5	22-22-1330	Brush Holder Assembly	(1)	34	32-75-1601	Spindle Gear	(1)	
	6	23-44-0190	Brush Retaining Cap	(2)	35	34-60-1200	Retaining Ring	(1)	
	7	23-52-0160	Brush Spring	(2)	36	02-50-1640	Needle Bearing	(1)	
	8	22-16-0275	Carbon Brush	(2)	37	32-40-1241	Intermediate Gear	(1)	
*	9	44-60-0530	Ground Pin	(1)	38	06-42-0800	Woodruff Key	(1)	
*	10	31-12-0196	Switch Cap	(1)	39	36-66-2001	Intermediate Shaft	(1)	
*	11	23-66-1865	Reversing Switch Assembly	(1)	40	02-04-0640	Ball Bearing	(1)	
*	12	23-94-6100	Ground Wire Assembly	(1)	41	28-14-1910	Gear Case	(1)	
*	13	06-82-7395	8-16 x 1-3/4" Pan Hd. Plast. Torx	(2)	42	02-04-1536	Ball Bearing	(1)	
	14	06-82-7260	7-18 x 5/8" Pan Hd. Plastite Torx Screw	(1)	43	34-80-2500	Retaining Ring	(1)	
	15	23-66-0167	On-Off Switch	(1)	*	44	06-82-7452	8-16 x 2-1/4" Pan Plastite Torx	(2)
*	16	31-44-1580	Left Handle Half	(1)	*	45	06-82-7354	8-16 x 1-3/8" Slit. Pan Hd. Plastite Torx Screw	(1)
	17	06-85-0200	Nameplate Screw	(2)	46	06-42-1600	Woodruff Key	(1)	
*	18	12-99-0530	Nameplate Blank	(1)	47	38-50-5470	Spindle	(1)	
*	19	31-50-0840	Motor Housing	(1)	48	06-75-3150	1/4-20 x 1 L.H. Skt. Cap Screw	(1)	
	20	02-04-0845	Ball Bearing	(1)	*	49	48-66-1365	1/2" Chuck	(1)
*	21	06-55-0835	8-32 Hex Nut	(2)	50	48-66-3280	Chuck Key	(1)	
*	22	22-56-0456	Terminal Block	(1)	51	43-62-0875	Side Handle	(1)	
	23	18-30-0200	120 Volt Field	(1)					
*	24	31-50-0845	Motor Housing Assembly	(1)					
	25	31-05-0050	Baffle	(1)					
	26	16-30-0325	120 Volt Armature	(1)					
	27	22-84-0530	Fan Assembly	(1)					
	28	02-04-0911	Ball Bearing	(1)					
*	29	44-76-0210	Cord Protector	(1)					

FIG. LUBRICATION

41 3-1/4 Oz. Type "A" Grease, 49-08-0800



SERVICE PARTS LIST

BULLETIN NO.
54-08-1149

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
1/2" REVERSING DRILL		54-08-1148	Mar. '93
CATALOG NO. 1001-1		WIRING INSTRUCTION	
STARTING SERIAL NO. 491-258006		58-01-0771	

EXAMPLE:



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

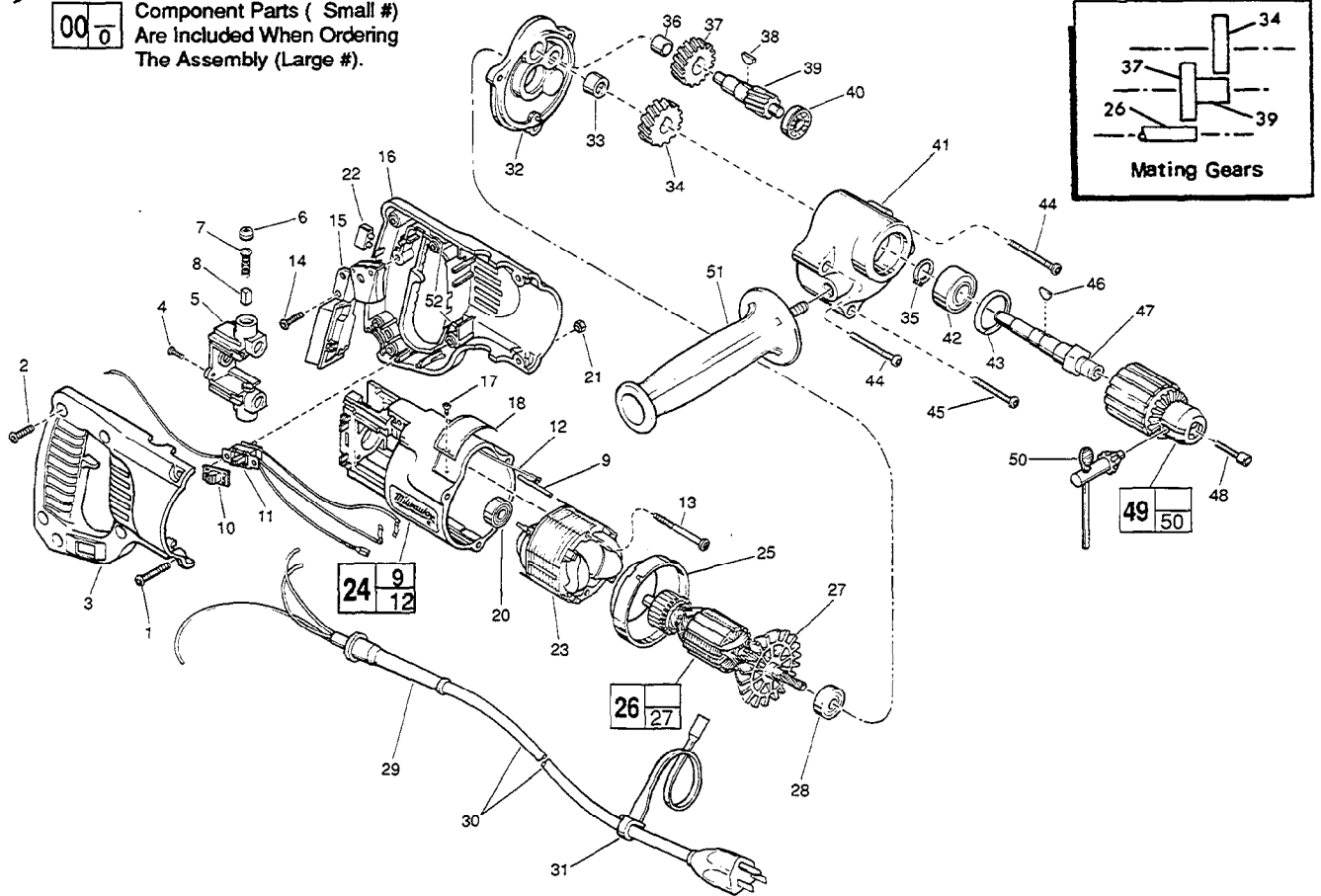


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	1	8-32x1-1/4" Slit. Pan Hd. Taptite T-20	(2)
★	2	8-16 x 5/8" Slit. Pan Hd. Plastite T-20	(5)
★	3	Right Handle Half	(1)
	4	6-19 x 1/2" Slit. Pan Hd. Plast. T-15	(2)
★	5	Brush Holder Assembly	(1)
	6	Brush Retaining Cap	(2)
	7	Brush Spring	(2)
	8	Carbon Brush	(2)
	9	Ground Pin	(1)
	10	Switch Cap	(1)
★	11	Reversing Switch Assembly	(1)
	12	Ground Wire Assembly	(1)
★	13	8-16 x 1-7/8" Slit. Pan Hd. Plast. T-20	(2)
★	14	8-16 x 5/8" Slit. Pan Hd. Plastite T-20	(1)
	15	On-Off Switch	(1)
★	16	Left Handle Half	(1)
	17	Nameplate Screw	(2)
★	18	Nameplate Blank	(1)
	20	Ball Bearing	(1)
	21	8-32 Hex Nut	(2)
	22	Terminal Block	(1)
★	23	120 Volt Field - Auto Assembly	(1)
★	24	Motor Housing Assembly	(1)
	25	Baffle	(1)
	26	120 Volt Armature	(1)
★	27	Fan Assembly	(1)
	28	Ball Bearing	(1)
	29	Cord Protector	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★	30	22-64-3190 Cord Set	(1)
	31	48-66-4040 Key Holder	(1)
	32	28-28-0601 Diaphragm	(1)
	33	02-50-2440 Needle Bearing	(1)
	34	32-75-1601 Spindle Gear	(1)
	35	34-60-1200 Retaining Ring	(1)
	36	02-50-1640 Needle Bearing	(1)
	37	32-40-1241 Intermediate Gear	(1)
	38	06-42-0800 Woodruff Key	(1)
★	39	36-66-2002 Intermediate Shaft	(1)
	40	02-04-0640 Ball Bearing	(1)
	41	28-14-1910 Gear Case	(1)
	42	02-04-1536 Ball Bearing	(1)
	43	34-80-2500 Retaining Ring	(1)
★	44	06-82-7453 8-16 x 2-1/4" Slit. Pan Hd. Plastite T-20	(2)
	45	06-82-7354 8-16 x 1-3/8" Slit. Pan Hd. Plastite T-20	(1)
	46	06-42-1600 Woodruff Key	(1)
	47	38-50-5470 Spindle	(1)
	48	06-75-3150 1/4-20 x 1 L.H. Skt. Cap Screw	(1)
★	49	48-66-1360 1/2" Chuck	(1)
	50	48-66-3280 Chuck Key	(1)
	51	43-62-0875 Side Handle	(1)
★	52	14-46-1001 Foam Slug Kit-(10 Slugs)	(2)

FIG. LUBRICATION

41 3-1/4 Oz. Type "A" Grease, 49-08-0800.



SERVICE PARTS LIST

BULLETIN NO.
54-08-1151

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS	
1/2" REVERSING DRILL	
CATALOG NO. 1001-1	STARTING SERIAL NO. 491A
FOR SERIAL NUMBERS: 491A394460224 TO 491A395080079 USE SERVICE PARTS LIST ON REVERSE SIDE OF THIS BULLETIN	

REVISED BULLETIN 54-08-1150	DATE Mar. '95
WIRING INSTRUCTION 58-01-0771	

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

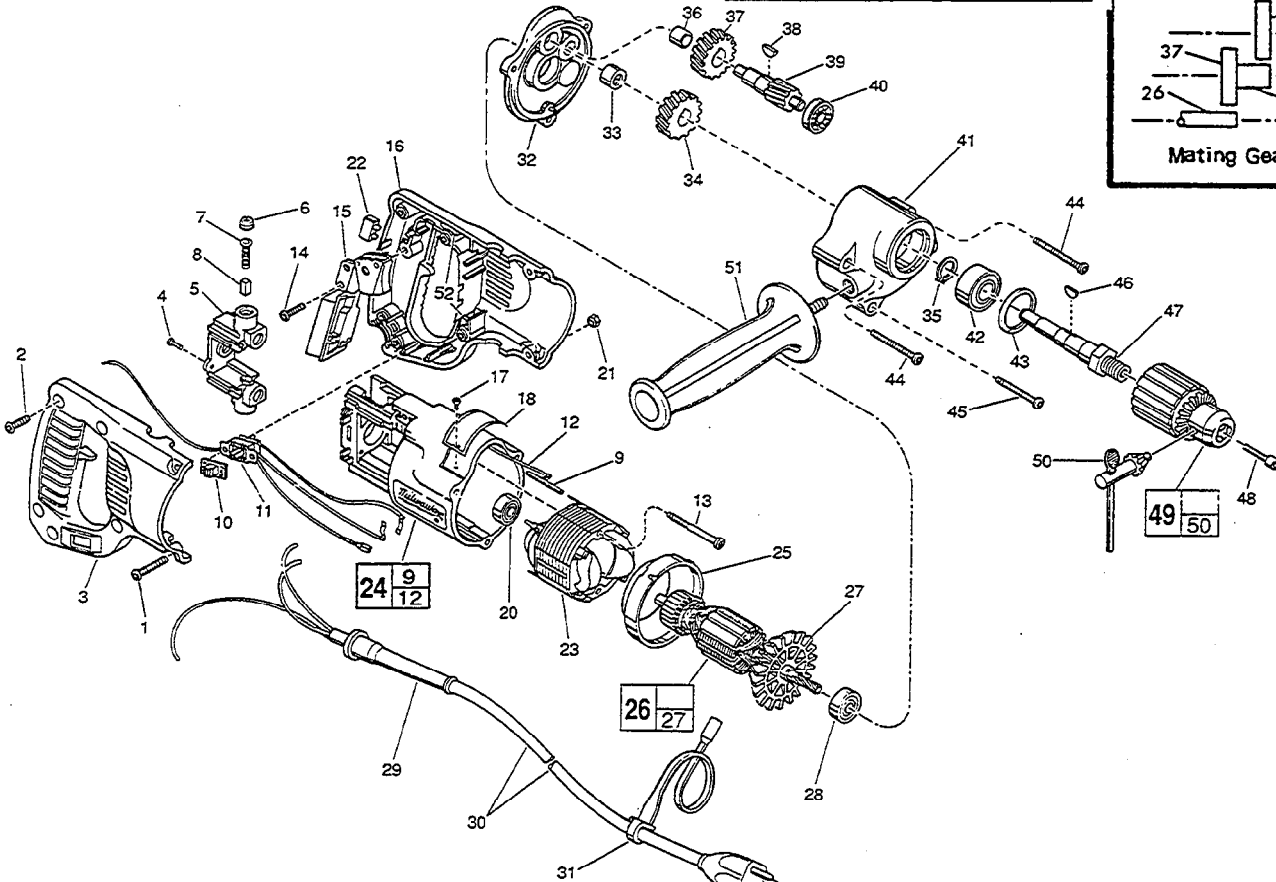
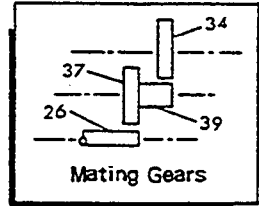


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	1	06-82-5390 8-32x1-1/4" Slit. Pan Hd. Tap Tite T-20	(2)	30	22-64-3190	Cord Set	(1)
	2	06-82-7270 8-16 x 5/8" Slit. Pan Hd. Plastite T-20	(5)	31	48-66-4040	Key Holder	(1)
	3	31-44-1651 Right Handle Half	(1)	32	28-28-0601	Diaphragm	(1)
	4	06-82-7240 6-19 x 1/2" Slit. Pan Hd. Plast. T-15	(2)	33	02-50-2440	Needle Bearing	(1)
	5	22-22-1380 Brush Holder Assembly	(1)	34	32-75-1601	Spindle Gear	(1)
	6	23-44-0190 Brush Retaining Cap	(2)	35	34-60-1200	Retaining Ring	(1)
	7	23-52-0160 Brush Spring	(2)	36	02-50-1640	Needle Bearing	(1)
	8	22-16-0275 Carbon Brush	(2)	37	32-40-1241	Intermediate Gear	(1)
	9	44-60-0530 Ground Pin	(1)	38	06-42-0800	Woodruff Key	(1)
	10	31-12-0196 Switch Cap	(1)	39	36-66-2002	Intermediate Shaft	(1)
	11	23-66-1868 Reversing Switch Assembly	(1)	40	02-04-0640	Ball Bearing	(1)
	12	23-94-6100 Ground Wire Assembly	(1)	41	28-14-1910	Gear Case	(1)
	13	06-82-7410 8-16 x 1-7/8" Slit. Pan Hd. Plast. T-20	(2)	42	02-04-1536	Ball Bearing	(1)
	14	06-82-7270 8-16 x 5/8" Slit. Pan Hd. Plastite T-20	(1)	43	34-80-2500	Retaining Ring	(1)
	15	23-66-0167 On-Off Switch	(1)	44	06-82-7453	8-16 x 2-1/4" Slit. Pan Hd. Plastite T-20	(2)
	16	31-44-1656 Left Handle Half	(1)	45	06-82-7354	8-16 x 1-3/8" Slit. Pan Hd. Plastite T-20	(1)
★	17	06-72-1720 Nameplate Rivet	(2)	46	06-42-1600	Woodruff Key	(1)
★	18	12-99-1750 Service Nameplate	(1)	47	38-50-5470	Spindle	(1)
	20	02-04-0845 Ball Bearing	(1)	48	06-75-3150	1/4-20 x 1 L.H. Skt. Cap Screw	(1)
	21	06-55-0835 8-32 Hex Nut	(2)	49	48-66-1360	1/2" Chuck	(1)
	22	22-56-0456 Terminal Block	(1)	50	48-66-3280	Chuck Key	(1)
	23	18-31-0200 120 Volt Field - Auto Assembly	(1)	51	43-62-0875	Side Handle	(1)
	24	31-50-0846 Motor Housing Assembly	(1)	52	14-46-1001	Foam Slug Kit-(10 Slugs)	(2)
	25	31-05-0050 Baffle	(1)				
	26	16-30-0325 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)				

FIG. LUBRICATION

41 3-1/4 Oz. Type "A" Grease, 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.	1001-1	WIRING INSTRUCTION 58-01-0773	
STARTING SERIAL NO.			

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

00 0

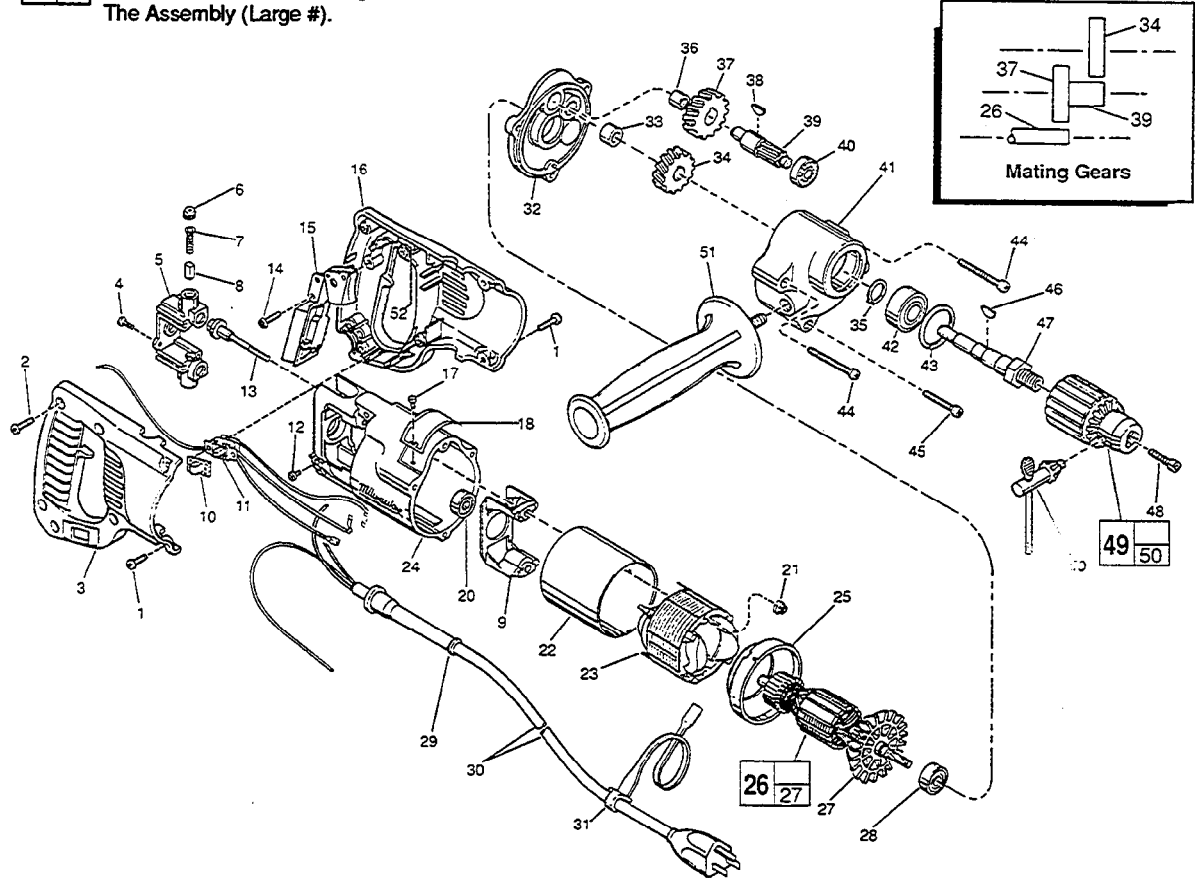


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★ 1	06-82-5316	8-32 x 1/2" Slit. Pan Hd. Taptite T-20	(4)
2	06-82-7270	8-16 x 5/8" Slit. Pan Hd. Plastite T-20	(5)
3	31-44-1651	Right Handle Half	(1)
★ 4	06-95-0075	6-32 x 3/8" Truss Hd. Taptite T-10	(2)
5	22-22-1380	Brush Holder Assembly	(1)
6	23-44-0190	Brush Retaining Cap	(2)
7	23-52-0160	Brush Spring	(2)
8	22-16-0275	Carbon Brush	(2)
★ 9	31-55-0190	Coil Shield	(1)
10	31-12-0196	Switch Cap	(1)
11	23-66-1863	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" Slit. 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)
20	02-04-0845	Ball Bearing	(1)
★ 21	06-57-2975	8-32 Flexlock Hex Nut	(2)
★ 22	23-16-0456	Field Insulator	(1)
23	18-31-0200	120 Volt Field - Auto Assembly	(1)
★ 24	28-50-6220	Motor Housing	(1)
25	31-05-0050	Baffle	(1)
26	16-30-0325	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)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
30	22-64-3190	Cord Set	(1)
31	48-66-4040	Key Holder	(1)
32	28-28-0601	Diaphragm	(1)
33	02-50-2440	Needle Bearing	(1)
34	32-75-1601	Spindle Gear	(1)
35	34-60-1200	Retaining Ring	(1)
36	02-50-1640	Needle Bearing	(1)
37	32-40-1241	Intermediate Gear	(1)
38	06-42-0800	Woodruff Key	(1)
39	36-66-2002	Intermediate Shaft	(1)
40	02-04-0640	Ball Bearing	(1)
41	28-14-1910	Gear Case	(1)
42	02-04-1536	Ball Bearing	(1)
43	34-80-2500	Retaining Ring	(1)
★ 44	06-82-5502	8-32 x 2-1/4" Slit. Pan Hd. Taptite T-20	(2)
★ 45	06-82-5404	8-32 x 1-3/8" Slit. Pan Hd. Taptite T-20	(1)
46	06-42-1600	Woodruff Key	(1)
47	38-50-5470	Spindle	(1)
48	06-75-3150	1/4-20 x 1" L.H. Skt. Cap Screw	(1)
49	48-66-1360	1/2" Chuck	(1)
50	48-66-3280	Chuck Key	(1)
51	43-62-0875	Side Handle	(1)
★ 52	14-46-1001	Foam Slug Kit-(10 Slugs)	(1)

FIG. LUBRICATION
41 3-1/4 Oz. Type "A" Grease, 49-08-0800.



SERVICE PARTS LIST

BULLETIN NO.
54-08-1152

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS			REVISED BULLETIN	DATE
1/2" REVERSING DRILL			54-08-1151	Dec. '94
CATALOG NO.	1001-1	STARTING SERIAL NO.	WIRING INSTRUCTION	
		491B	58-01-0773	

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

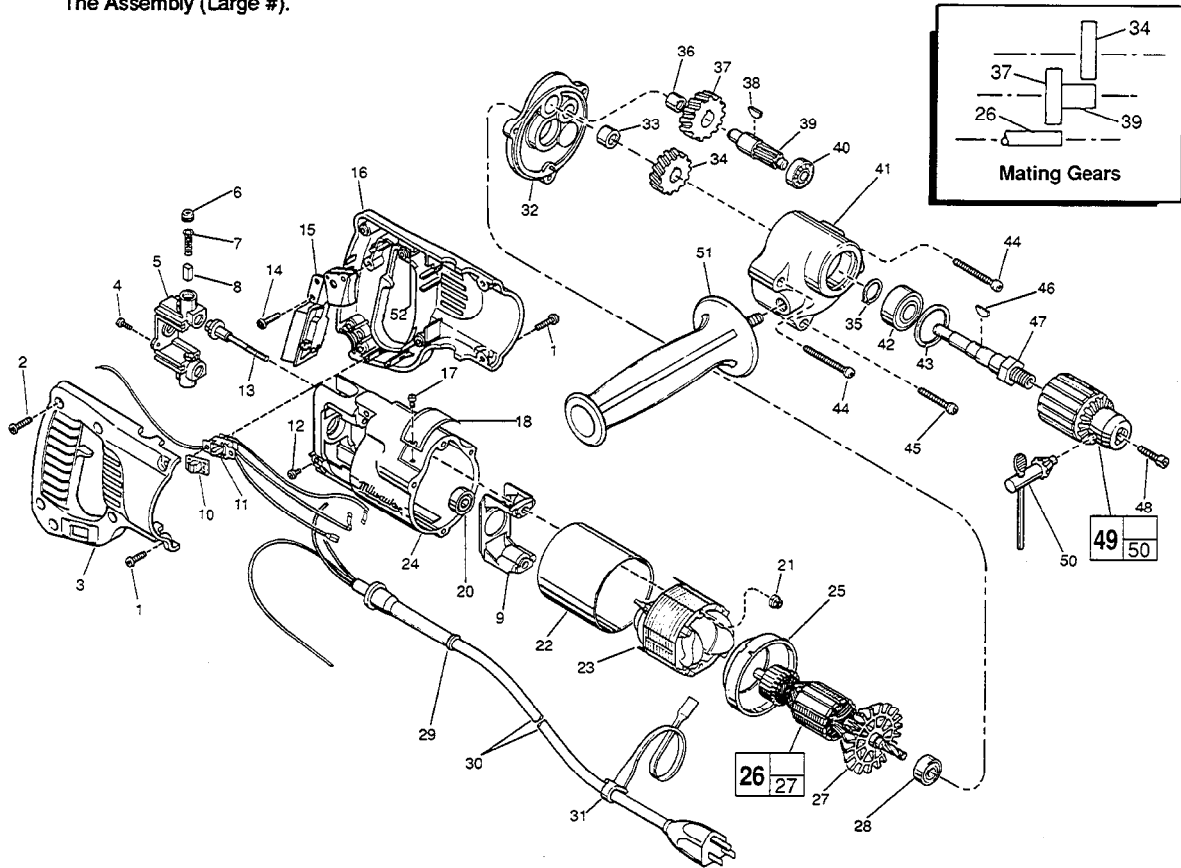


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	
★	1	06-82-5316 8-32 x 1/2" Slit. Pan Hd. Taptite T-20	(4)	30	22-64-3190	Cord Set	(1)	
	2	06-82-7270 8-16 x 5/8" Slit. Pan Hd. Plastite T-20	(5)	31	48-66-4040	Key Holder	(1)	
	3	31-44-1651 Right Handle Half	(1)	32	28-28-0601	Diaphragm	(1)	
★	4	06-95-0075 6-32 x 3/8" Truss Hd. Taptite T-10	(2)	33	02-50-2440	Needle Bearing	(1)	
	5	22-22-1380 Brush Holder Assembly	(1)	34	32-75-1601	Spindle Gear	(1)	
	6	23-44-0190 Brush Retaining Cap	(2)	35	34-60-1200	Retaining Ring	(1)	
	7	23-52-0160 Brush Spring	(2)	36	02-50-1640	Needle Bearing	(1)	
	8	22-16-0275 Carbon Brush	(2)	37	32-40-1241	Intermediate Gear	(1)	
★	9	31-55-0190 Coil Shield	(1)	38	06-42-0800	Woodruff Key	(1)	
	10	31-12-0196 Switch Cap	(1)	39	36-66-2002	Intermediate Shaft	(1)	
	11	23-66-1868 Reversing Switch Assembly	(1)	40	02-04-0640	Ball Bearing	(1)	
★	12	06-95-5150 6-32 x 1/4" Hex Hd. Taptite Sems	(1)	41	28-14-1910	Gear Case	(1)	
★	13	06-81-1060 8-32 x 2-1/4" Field Bolt	(2)	42	02-04-1536	Ball Bearing	(1)	
	14	06-82-7270 8-16 x 5/8" Slit. Pan Hd. Plastite T-20	(1)	43	34-80-2500	Retaining Ring	(1)	
	15	23-66-0167 On-Off Switch	(1)	★	44	06-82-5502 8-32 x 2-1/4" Slit. Pan Hd. Taptite T-20	(2)	
	16	31-44-1656 Left Handle Half	(1)	★	45	06-82-5404 8-32 x 1-3/8" Slit. Pan Hd. Taptite T-20	(1)	
	17	06-72-1720 Nameplate Rivet	(2)	46	06-42-1600	Woodruff Key	(1)	
	18	12-99-1750 Service Nameplate	(1)	47	38-50-5470	Spindle	(1)	
	20	02-04-0845 Ball Bearing	(1)	48	06-75-3150	1/4-20 x 1" L.H. Skt. Cap Screw	(1)	
★	21	06-57-2975 8-32 Flexlock Hex Nut	(2)	49	48-66-1360	1/2" Chuck	(1)	
★	22	23-16-0456 Field Insulator	(1)	50	48-66-3280	Chuck Key	(1)	
	23	18-31-0200 120 Volt Field - Auto Assembly	(1)	51	43-62-0875	Side Handle	(1)	
★	24	28-50-6220 Motor Housing	(1)	★	52	14-46-1001	Foam Slug Kit-(10 Slugs)	(1)
	25	31-05-0050 Baffle	(1)					
	26	16-30-0325 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)					

FIG. LUBRICATION
41 3-1/4 Oz. Type "A" Grease, 49-08-0800.

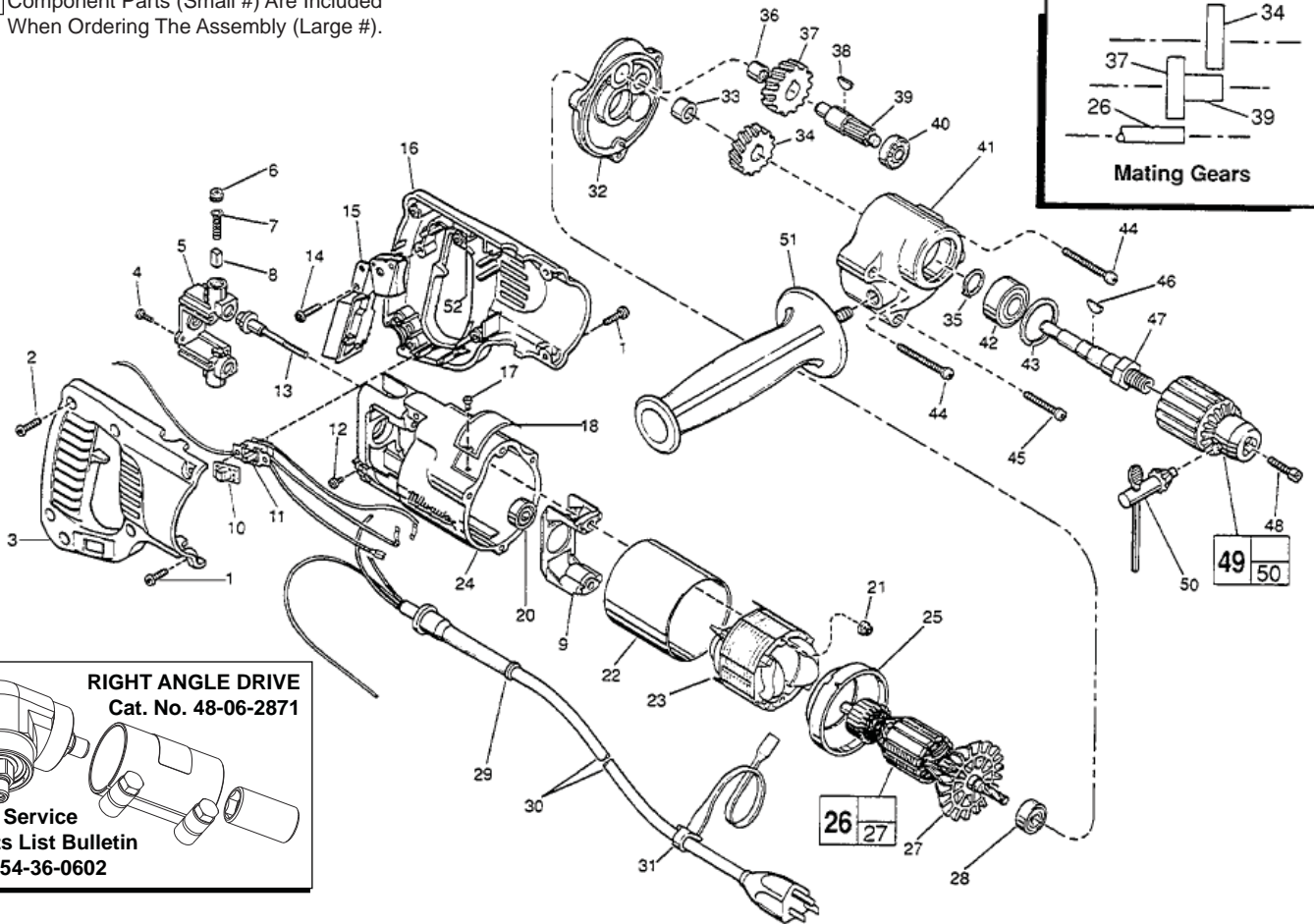


SERVICE PARTS LIST

BULLETIN NO.
54-08-1153

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1152	DATE Jan. 2013
1/2" REVERSING DRILL			
CATALOG NO.	1001-1	STARTING SERIAL NO.	491C
		WIRING INSTRUCTION 58-01-0773	

EXAMPLE:
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 1-1/2" Slit. Pan Hd. Taptite T-20	(2)
2	06-82-7270	8-16 x 5/8" Slit. Pan Hd. Plastite T-20	(5)
3	31-44-1651	Right Handle Half	(1)
4	06-95-0075	6-32 x 3/8" Truss Hd. Taptite	(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	31-55-0190	Coil Shield	(1)
10	31-12-0196	Switch Cap	(1)
11	23-66-1868	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" Slit. 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)
20	02-04-0845	Ball Bearing	(1)
21	06-57-2975	8-32 Hex Nut	(2)
22	23-16-0456	Field Insulator	(1)
23	18-31-0200	120 Volt Field - Auto Assembly	(1)
24	28-50-6220	Motor Housing	(1)
25	31-05-0050	Baffle	(1)
★26	16-30-0326	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	(1)
32	28-28-0601	Diaphragm	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
33	02-50-2440	Needle Bearing	(1)
★34	32-75-1606	Spindle Gear	(1)
35	34-60-1200	Retaining Ring	(1)
36	02-50-1640	Needle Bearing	(1)
★37	32-40-1251	Intermediate Gear	(1)
38	06-42-0800	Woodruff Key	(1)
★39	36-66-2012	Intermediate Shaft	(1)
★40	02-04-0725	Ball Bearing	(1)
★41	28-14-1921	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	48-66-1360	1/2" Chuck	(1)
50	48-66-3280	Chuck Key	(1)
51	43-62-0875	Side Handle	(1)
52	14-46-1001	Foam Slug Kit-(10 Slugs)	(1)

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

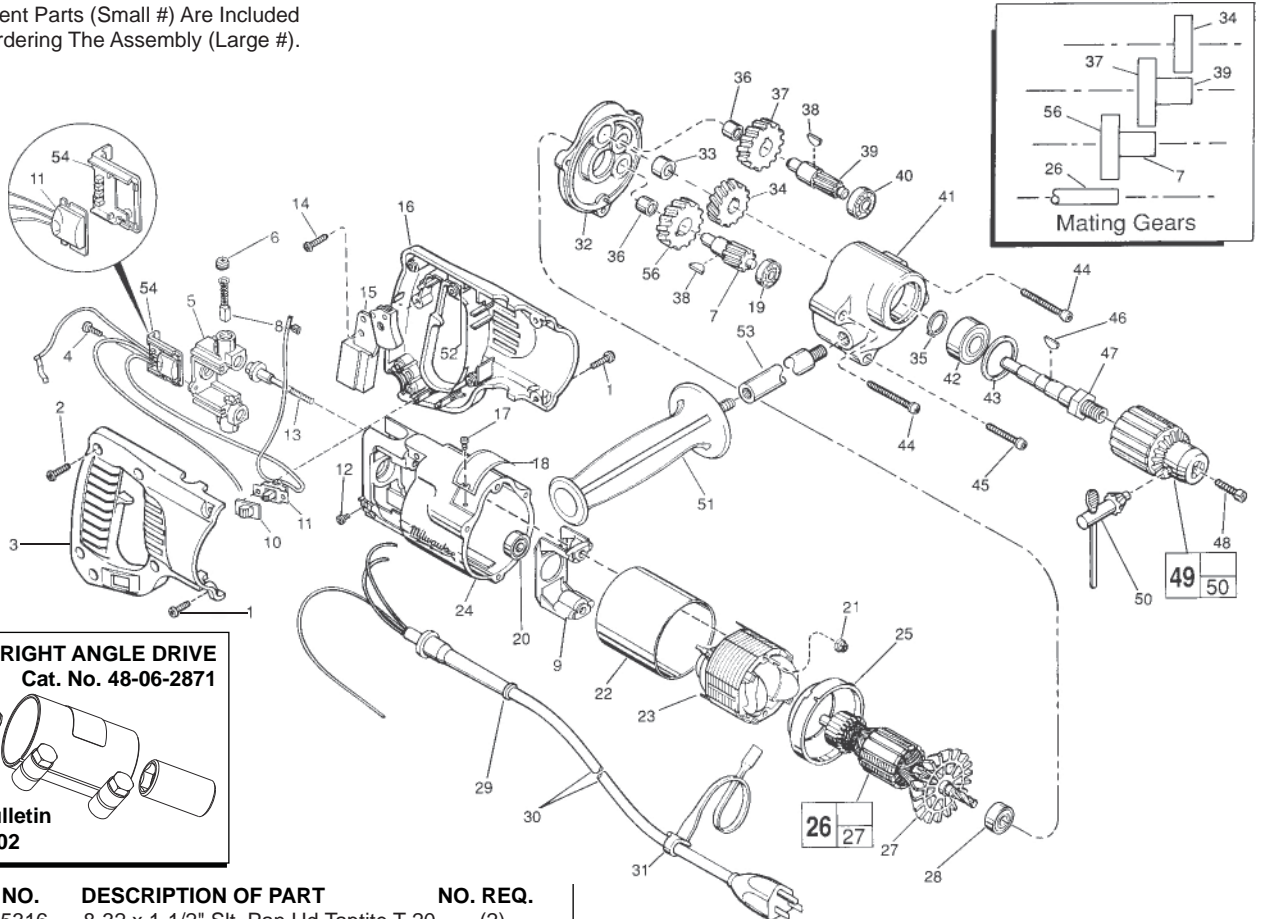


SERVICE PARTS LIST

BULLETIN NO.
54-08-1154

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1153	DATE Jan. 2013
1/2" REVERSING DRILL			
CATALOG NO.	1001-1	STARTING SERIAL NO.	491D
		WIRING INSTRUCTION 58-01-0297	

EXAMPLE:
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 1-1/2" Slit. Pan Hd. Taptite T-20	(2)
2	06-82-7270	8-16 x 5/8" Slit. Pan Hd. Plastite T-20	(5)
3	31-44-1651	Right Handle Half	(1)
4	06-95-0075	6-32 x 3/8" Truss Hd. Taptite	(2)
5	22-22-1380	Brush Holder Assembly	(1)
6	23-44-0190	Brush Retaining Cap	(2)
★ 7	36-66-2811	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	14-20-0357	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" Slit. Pan Hd. Plastite T-20	(1)
★ 15	23-66-1965	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	02-04-0640	Ball Bearing	(1)
20	02-04-0845	Ball Bearing	(1)
21	06-57-2975	8-32 Hex Nut	(2)
22	23-16-0456	Field Insulator	(1)
★ 23	18-31-0600	120 Volt Field - Auto Assembly	(1)
24	28-50-6220	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	(1)
★ 32	28-28-0611	Diaphragm	(1)
33	02-50-2440	Needle Bearing	(1)
★ 34	32-75-2066	Spindle Gear	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
35	34-60-1200	Retaining Ring	(1)
★ 36	02-50-1640	Needle Bearing	(2)
★ 37	32-75-2051	2nd Intermediate Gear	(1)
★ 38	06-42-0800	Woodruff Key	(2)
★ 39	36-66-4012	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	48-66-1360	1/2" Chuck	(1)
50	48-66-3280	Chuck Key	(1)
★ 51	43-62-1265	Side Handle	(1)
52	14-46-1001	Foam Slug Kit-(10 Slugs)	(1)
★ 53	43-62-1170	Side Handle Extension	(1)
★ 54	43-72-0176	Heat Sink Holder	(1)
★ 56	32-40-1251	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.

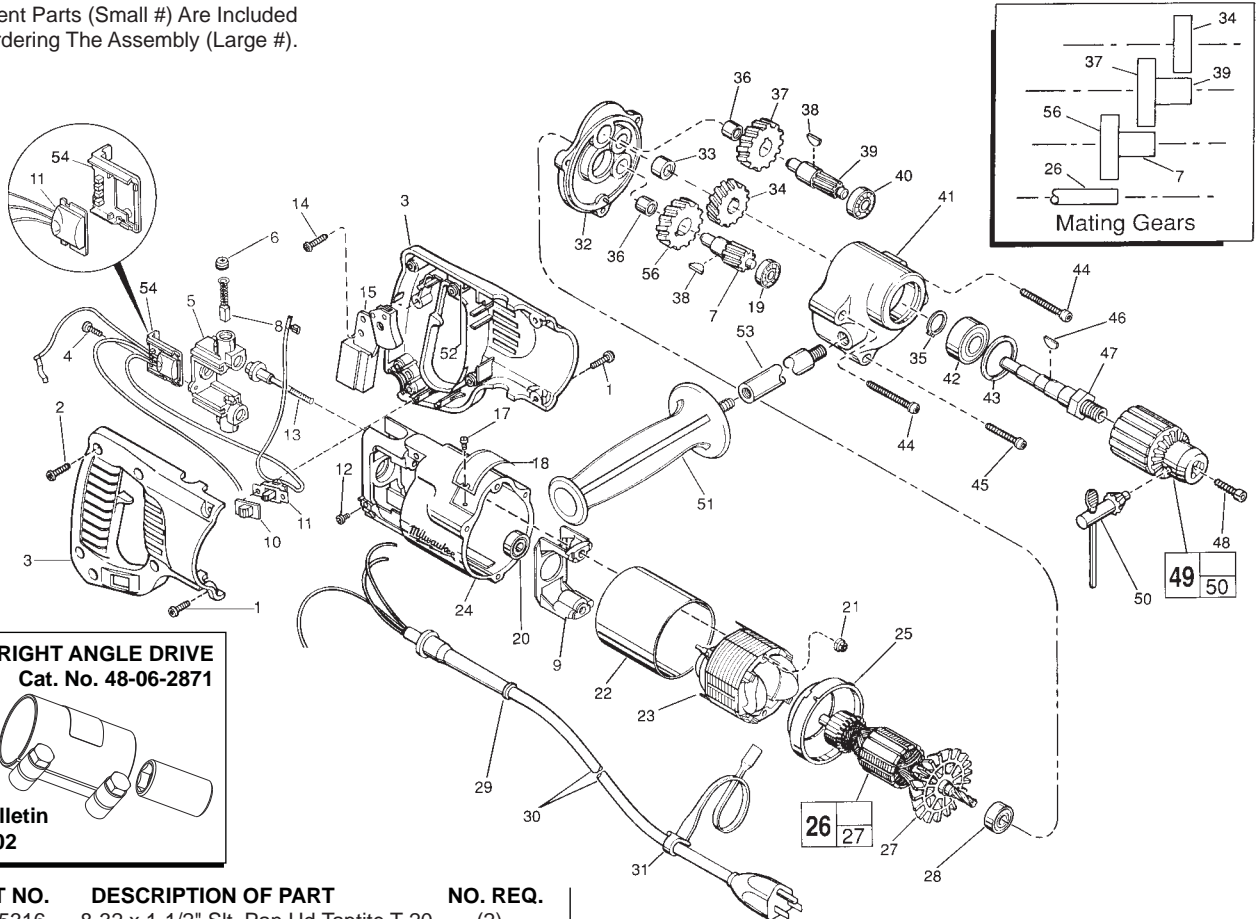


SERVICE PARTS LIST

BULLETIN NO.
54-08-1155

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-08-1154	DATE Jan. 2013
1/2" REVERSING DRILL			
CATALOG NO.	1001-1	STARTING SERIAL NO.	491E
		WIRING INSTRUCTION 58-01-0297	

EXAMPLE:
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 1-1/2" 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 Right and Left Handle Halves	(1)
	4	06-95-0075 6-32 x 3/8" Truss Hd. Taptite	(2)
	5	22-22-1380 Brush Holder Assembly	(1)
	6	23-44-0190 Brush Retaining Cap	(2)
	7	36-66-2811 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	14-20-0367 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" Slit. Pan Hd. Plastite T-20	(1)
	15	23-66-1965 On-Off Switch	(1)
	17	06-72-1720 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	06-57-2975 8-32 Hex Nut	(2)
	22	23-16-0456 Field Insulator	(1)
	23	18-31-0600 120 Volt Field - Auto Assembly	(1)
	24	28-50-6220 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	(1)
	32	28-28-0611 Diaphragm	(1)
	33	02-50-2440 Needle Bearing	(1)
	34	32-75-2066 Spindle Gear	(1)
	35	34-60-1200 Retaining Ring	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	36	02-50-1640 Needle Bearing	(2)
	37	32-75-2051 2nd Intermediate Gear	(1)
	38	06-42-0800 Woodruff Key	(2)
	39	36-66-4012 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	48-66-1360 1/2" Chuck	(1)
	50	48-66-3280 Chuck Key	(1)
	51	43-62-1265 Side Handle	(1)
	52	14-46-1001 Foam Slug Kit-(10 Slugs)	(1)
	53	43-62-1170 Side Handle Extension	(1)
	54	43-72-0176 Heat Sink Holder	(1)
	56	32-40-1251 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.

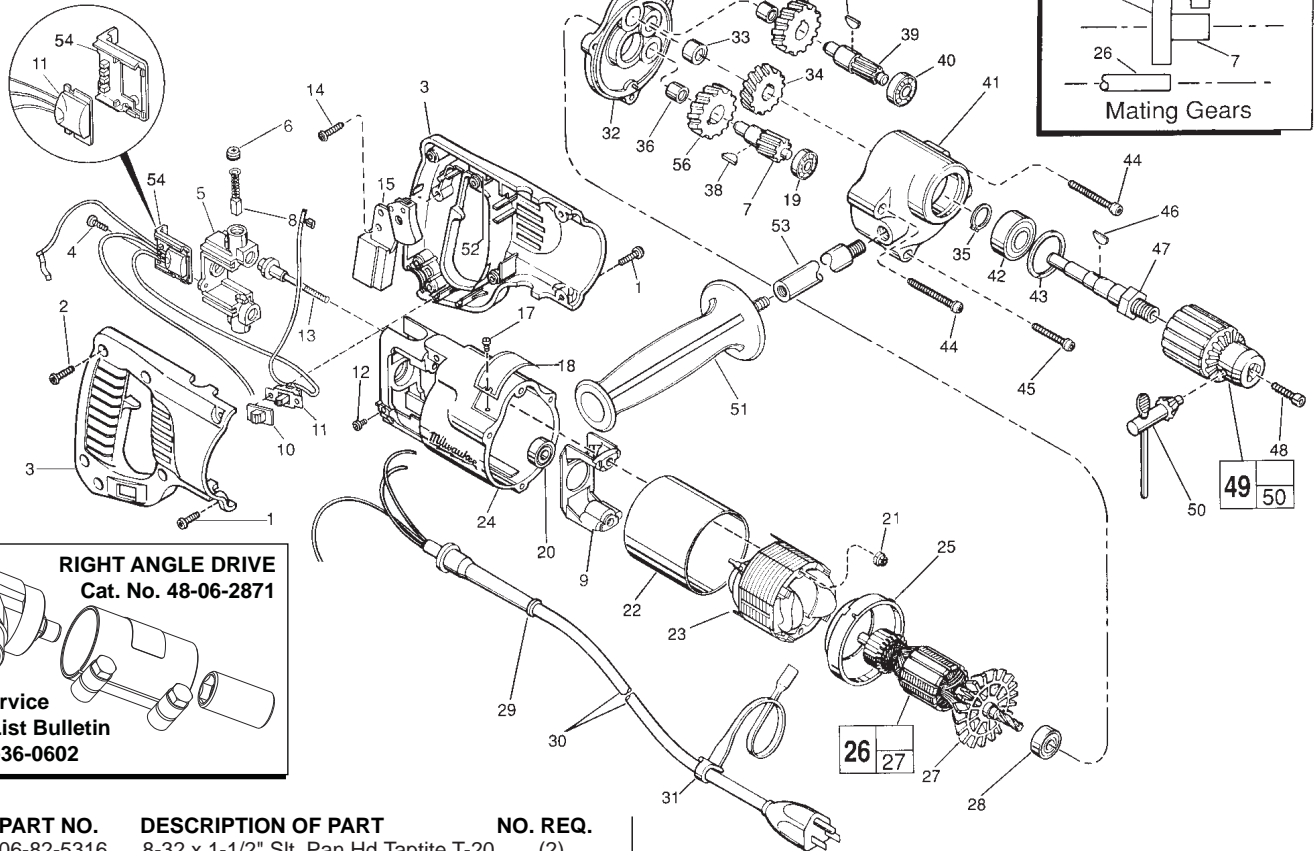


SERVICE PARTS LIST

BULLETIN NO.
54-08-1156

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
1/2" REVERSING DRILL		54-08-1155	Jan. 2013
CATALOG NO.	1001-1	WIRING INSTRUCTION	
STARTING SERIAL NO.	491F	58-01-0296	

EXAMPLE:
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 1-1/2" 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	Right and Left Handle Halves	(1)
4	06-95-0075	6-32 x 3/8" Truss Hd. Taptite	(2)
5	22-22-1380	Brush Holder Assembly	(1)
6	23-44-0190	Brush Retaining Cap	(2)
7	36-66-2811	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	14-20-0377	Remote 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" Slit. Pan Hd. Plastite T-20	(1)
★15	23-66-0205	Switch	(1)
17	06-72-1720	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	06-57-2975	8-32 Hex Nut	(2)
22	23-16-0456	Field Insulator	(1)
23	18-31-0600	120 Volt Field - Auto Assembly	(1)
24	28-50-6220	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	(1)
32	28-28-0611	Diaphragm	(1)
33	02-50-2440	Needle Bearing	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
34	32-75-2066	Spindle Gear	(1)
35	34-60-1200	Retaining Ring	(1)
36	02-50-1640	Needle Bearing	(2)
37	32-75-2051	2nd Intermediate Gear	(1)
38	06-42-0800	Woodruff Key	(2)
39	36-66-4012	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	48-66-1360	1/2" Chuck	(1)
50	48-66-3280	Chuck Key	(1)
51	43-62-1265	Side Handle	(1)
52	14-46-1001	Foam Slug Kit-(10 Slugs)	(1)
53	43-62-1170	Side Handle Extension	(1)
54	43-72-0176	Heat Sink Holder	(1)
56	32-40-1251	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.



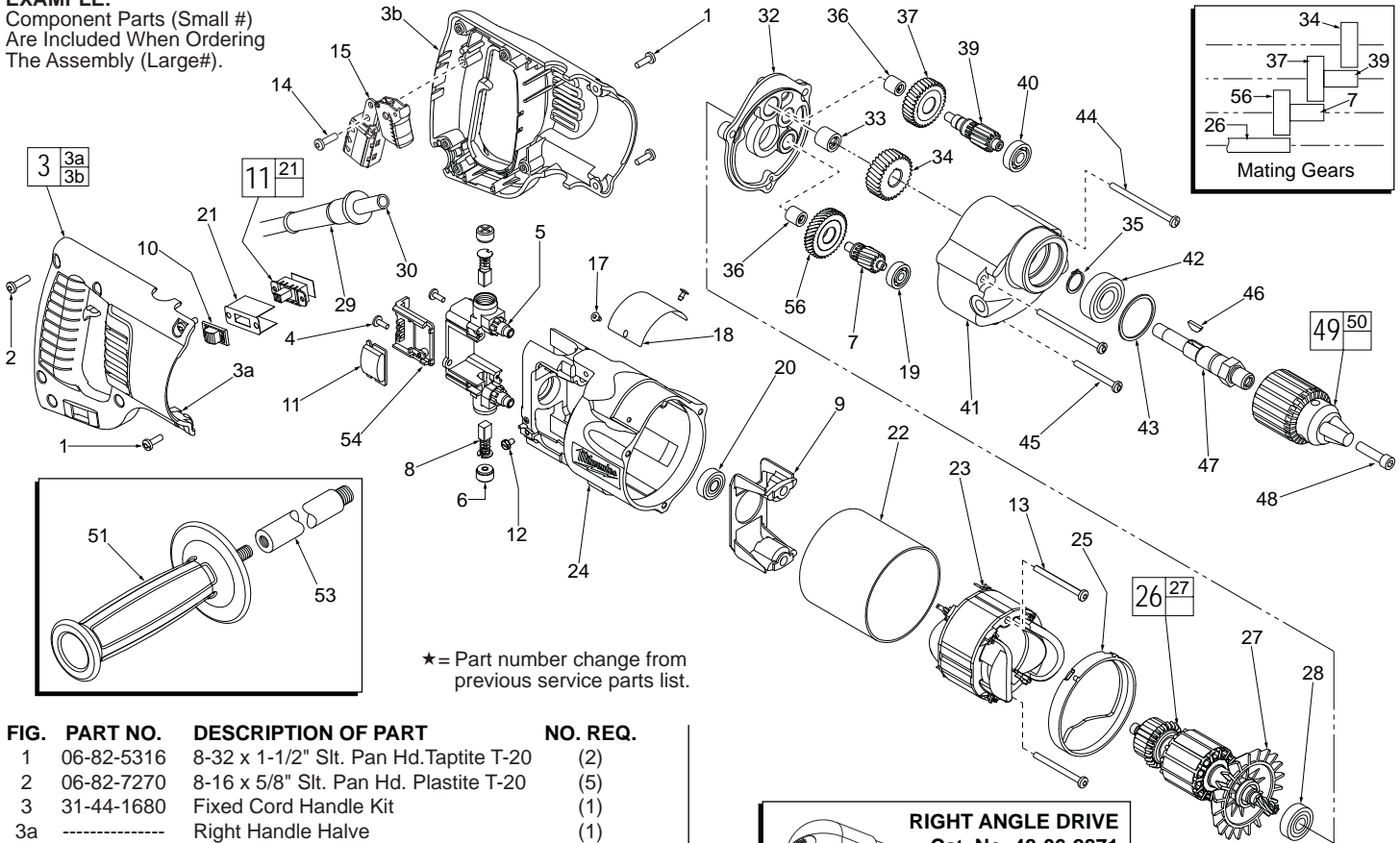
SERVICE PARTS LIST

BULLETIN NO.
54-08-1157

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
1/2" REVERSING DRILL		54-08-1156	Jan. 2013
CATALOG NO.	1001-1	WIRING INSTRUCTION	
STARTING SERIAL NO.	491G	58-01-0296	

00
0

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 Half	(1)
3b	-----	Left Handle Half	(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	14-20-0385	Remote 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	23-66-0205	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	32-75-2066	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)

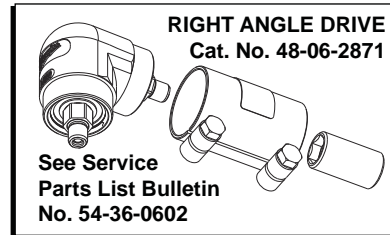


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★ 39	36-66-4013	2nd Intermediate Shaft	(1)
40	02-04-0820	Ball Bearing	(1)
41	28-14-1922	Gear Case	(1)
42	02-04-1536	Ball Bearing	(1)
43	34-80-2500	Retaining Ring	(1)
44	06-82-5532	8-32 x 2-1/2" Slit. Pan Hd. Taptite T-20	(2)
45	06-82-5432	8-32 x 1-5/8" Slit. 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	43-72-0176	Heat Sink Holder	(1)
★ 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.