



SERVICE PARTS LIST

HOLE HAWG

Catalog No. **1675-1**

Starting Serial No. **413-1001**

Specify Catalog and Serial No. when ordering parts

BUL.54-10-4000

REVISED BUL. DATE
June '73

WIRING INSTRUCTIONS
58-01-0620

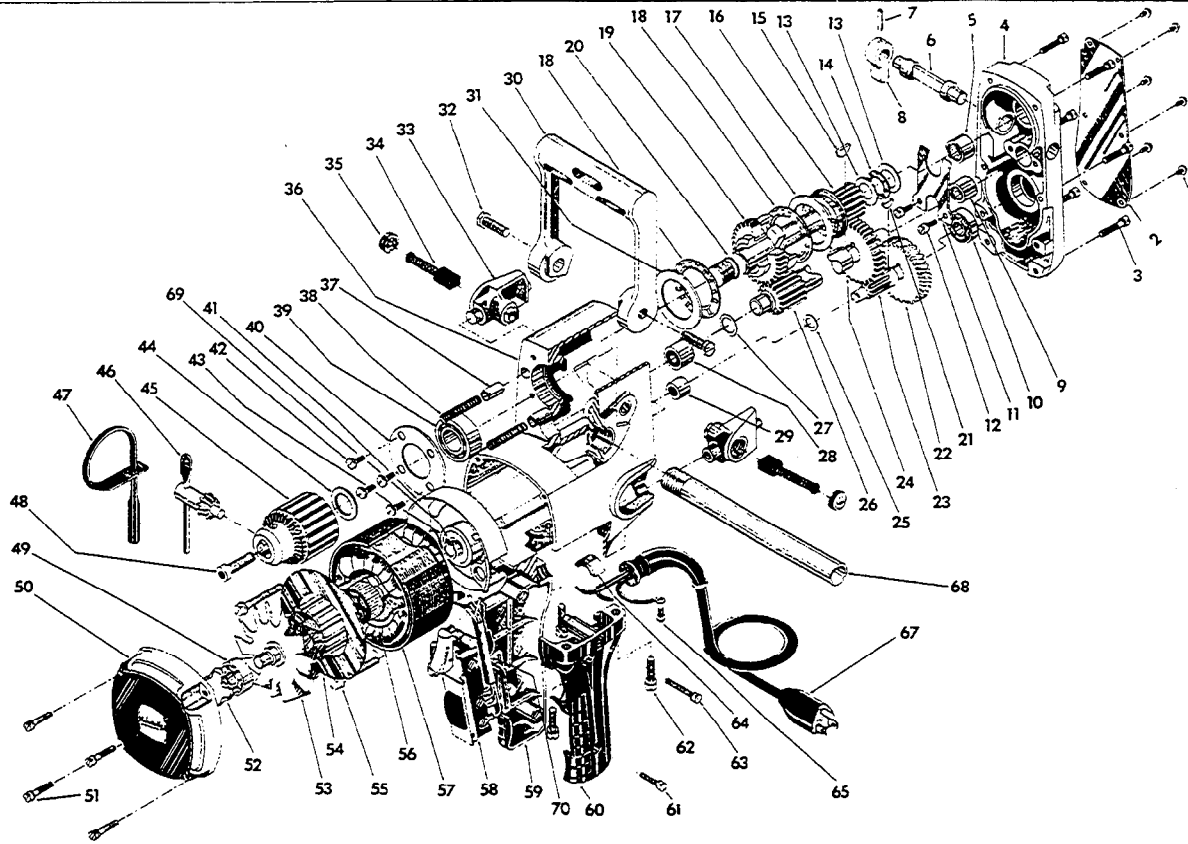


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	1	06-81-8200 4-36x3/16 Rd. Hd. Name Plate Scr.	(6)		36	28-50-6101 Motor Housing Assy.	(1)
	2	12-98-7050 Name Plate	(1)		37	44-70-0160 Shifting Plunger	(2)
	3	06-81-6350 8-32x1 Fil.Hd. Gear Case Cover Scr.	(6)		38	40-50-7670 Shifting Spring	(2)
	4	28-20-1121 Gear Case Cover	(1)		39	02-04-1700 Ball Bearing	(1)
	5	02-50-3170 Needle Bearing	(1)		40	44-66-5241 Bearing Retainer Plate	(1)
	6	42-50-0100 Shifting Cam	(1)		41	31-55-0060 Coil Shield	(1)
	7	06-65-2825 1/8x5/8 Type 2 Drive Pin	(1)		42	06-81-5400 8-32x5/16 B inder Hd.Brg.Ret.Scr.	(4)
	8	28-60-0061 Shifting Knob	(1)		43	02-04-1050 Ball Bearing	(1)
	9	02-50-2750 Needle Bearing	(1)		44	45-88-0330 Chuck Spacer Washer	(1)
	10	02-04-0910 Ball Bearing	(1)		45	48-66-1380 Chuck	(1)
	11	45-98-0100 Shifting Yoke	(1)		46	48-66-3280 Chuck Key	(1)
	12	06-81-6050 8-32x5/16 Fil.Hd. Shifting Yoke Scr.	(2)		47	48-66-4040 Key Holder	(1)
	13	45-88-7150 Thruster Washer	(2)		48	06-75-3150 1/4-20x1 Soc.Hd. Chuck Ret.Scr.	(1)
	14	02-80-6020 Thrust Bearing	(1)		49	02-04-0940 Ball Bearing	(1)
	15	06-42-2000 No. 3 Woodruff Key	(1)		50	28-50-6111 Bearing Support Housing Assy.	(1)
	16	32-10-0132 Hi-Speed Clutch Gear Assy.	(1)		51	06-81-6200 8-32x5/8 Fil.Hd.Brg. Support Hsg.Scr.	(4)
	17	45-88-7140 Thrust Washer	(1)		52	45-88-7110 Spring Washer	(1)
	18	02-80-1800 Thrust Bearing	(2)		53	16-62-1160 Armature Assy.	(1)
	19	32-10-0122 Lo-Speed Clutch Gear Assy.	(1)		54	42-14-0150 Baffle	(1)
	20	38-50-4991 Spindle	(1)		55	06-81-6700 8-32x1-7/8 Fil. Hd. Field Scr.	(2)
	21	06-42-1200 No. 212 Woodruff Key	(1)		56	18-62-1120 Field Assy.	(1)
	22	32-42-1301 1st. Intermediate Gear	(1)		57	23-16-0430 Field Insulator	(1)
	23	36-66-4071 1st. Intermediate Pinion	(1)		58	23-66-0750 Switch	(1)
	24	32-44-1311 2nd. Intermediate Gear	(1)		59	31-44-0191 R.H. Drill Handle Assy.	(1)
	25	45-88-7100 Fiber Thrust Washer	(1)		60	31-44-0180 L.H. Drill Handle	(1)
	26	36-66-4081 2nd. Intermediate Pinion	(1)		61	06-81-6200 8-32x5/8 Fil.Hd. Handle Cover Scr.	(1)
	27	45-88-7095 Fiber Thrust Washer	(1)		62	06-81-7560 12-24x7/8 Fil.Hd. Handle Ret.Scr.	(4)
	28	02-50-3180 Needle Bearing	(1)		63	06-81-6400 8-32x1-1/8 Fil.Hd. Handle Cover Scr.	(1)
	29	02-50-2020 Needle Bearing	(1)		64	31-55-0070 Power Cord Shield	(1)
	30	28-44-7151 Spade Handle	(1)		65	06-81-8625 6-32x1/4 Ground Scr.	(1)
	31	45-88-0520 Thrust Washer	(1)		67	22-64-0620 Cord Set	(1)
	32	45-04-0380 3/8-16x1 Hex Hd. Spade Handle Scr.	(2)		68	43-62-0460 Pipe Handle	(1)
	33	22-22-0262 Brush Holder Assy.	(2)		69	34-60-0827 Retaining Ring	(1)
	34	22-18-0390 Carbon Brush Assy.	(2)		70	23-48-0100 Insulation Sleeve	(1)
	35	23-44-0120 Brush Retaining Cap	(2)				



SERVICE PARTS LIST

BUL. 54-10-4001

HOLE HAWG

REVISED BUL. DATE
June '73

Catalog No. 1675-1

Starting Serial No. **413-2045**

WIRING INSTRUCTIONS
58-01-0620

Specify Catalog and Serial No. when ordering parts

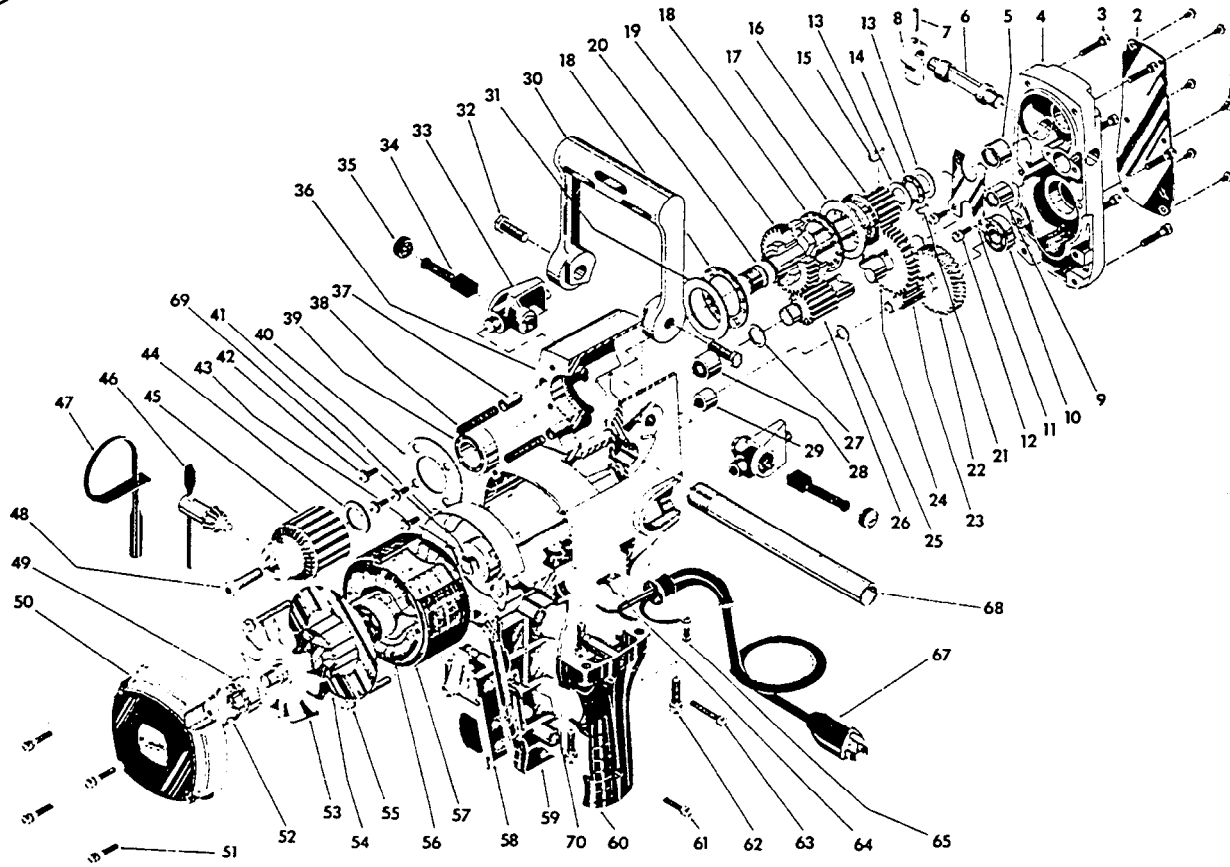


FIG.	PART NO.	DESCRIPTION OF PART	NO REQ	FIG.	PART NO.	DESCRIPTION OF PART	NO REQ
1	06-81-8200	4-36x3/16 Rd. Hd. Name Plate Scr.	(6)	★ 36	28-50-6121	Motor Housing Assy.	(1)
2	12-98-7050	Name Plate	(1)	37	44-70-0160	Shifting Plunger	(2)
3	06-81-6350	8-32x1 Fil.Hd. Gear Case Cover Scr.	(6)	38	40-50-7670	Shifting Spring	(2)
4	28-20-1121	Gear Case Cover	(1)	39	02-04-1700	Ball Bearing	(1)
5	02-50-3170	Needle Bearing	(1)	40	44-66-5241	Bearing Retainer Plate	(1)
6	42-50-0100	Shifting Cam	(1)	41	31-55-0060	Coil Shield	(1)
7	06-65-2825	1/8x5/8 Type 2 Drive Pin	(1)	42	06-81-5400	8-32x5/16 B inder Hd.Brg.Ret.Scr.	(4)
8	28-60-0061	Shifting Knob	(1)	43	02-04-1050	Ball Bearing	(1)
9	02-50-2750	Needle Bearing	(1)	44	45-88-0330	Chuck Spacer Washer	(1)
10	02-04-0910	Ball Bearing	(1)	45	48-66-1380	Chuck	(1)
11	45-98-0100	Shifting Yoke	(1)	46	48-66-3280	Chuck Key	(1)
12	06-81-6050	8-32x5/16 Fil.Hd. Shifting Yoke Scr.	(2)	47	48-66-4040	Key Holder	(1)
13	45-88-7150	Thrustrer Washer	(2)	48	06-75-3150	1/4-20x1 Soc.Hd. Chuck Ret.Scr.	(1)
14	02-80-6020	Thrust Bearing	(1)	49	02-04-0940	Ball Bearing	(1)
15	06-42-2000	No. 3 Woodruff Key	(1)	50	28-50-6111	Bearing Support Housing Assy.	(1)
16	32-10-0132	Hi-Speed Clutch Gear Assy.	(1)	51	06-81-6200	8-32x5/8 Fil.Hd.Brg. Support Hsg.Scr.	(4)
17	45-88-7140	Thrust Washer	(1)	52	45-88-7110	Spring Washer	(1)
18	02-80-1800	Thrust Bearing	(2)	53	16-62-1160	Armature Assy.	(1)
19	32-10-0122	L o-Speed Clutch Gear Assy.	(1)	54	42-14-0150	Baffle	(1)
20	38-50-4991	Spindle	(1)	55	06-81-6700	8-32x1 7/8 Fil. Hd. Field Scr.	(2)
21	06-42-1200	No. 212 Woodruff Key	(1)	56	18-62-1120	Field Assy.	(1)
22	32-42-1301	1st. Intermediate Gear	(1)	57	23-16-0430	Field Insulator	(1)
23	36-66-4071	1st. Intermediate Pinion	(1)	58	23-66-0750	Switch	(1)
24	32-44-1311	2nd. Intermediate Gear	(1)	59	31-44-0191	R.H. Drill Handle Assy.	(1)
25	45-88-7100	Fiber Thrust Washer	(1)	60	31-44-0180	L.H. Drill Handle	(1)
26	36-66-4081	2nd. Intermediate Pinion	(1)	61	06-81-6200	8-32x5/8 Fil.Hd. Handle Cover Scr.	(1)
27	45-88-7095	Fiber Thrust Washer	(1)	62	06-81-7560	12-24x7/8 Fil.Hd. Handle Ret.Scr.	(4)
28	02-50-3180	Needle Bearing	(1)	63	06-81-6400	8-32x1 1/8 Fil.Hd. Handle Cover Scr.	(1)
29	02-50-2020	Needle Bearing	(1)	64	31-55-0070	Power Cord Shield	(1)
30	28-44-7151	Spade Handle	(1)	65	06-81-8625	6-32x1/4 Ground Scr.	(1)
31	45-88-0520	Thrust Washer	(1)	67	22-64-0620	Cord Set	(1)
32	45-04-0380	3/8-16x1 Hex Hd. Spade Handle Scr.	(2)	★ 68	43-62-0120	Pipe Handle	(1)
33	22-22-0262	Brush Holder Assy.	(2)	69	34-60-0827	Retaining Ring	(1)
34	22-18-0390	Carbon Brush Assy.	(2)	70	23-48-0100	Insulation Sleeve	(1)
35	23-44-0120	Brush Retaining Cap	(2)				



SERVICE PARTS LIST

BUL.54-10-4002

HOLE HAWG

REVISED BUL
54-10-4001

DATE
March '71

Catalog No. 1675-1

Starting Serial No. 413-14429

WIRING INSTR.
58-01-0621

Both Model and Serial No. must be furnished to obtain correct parts.

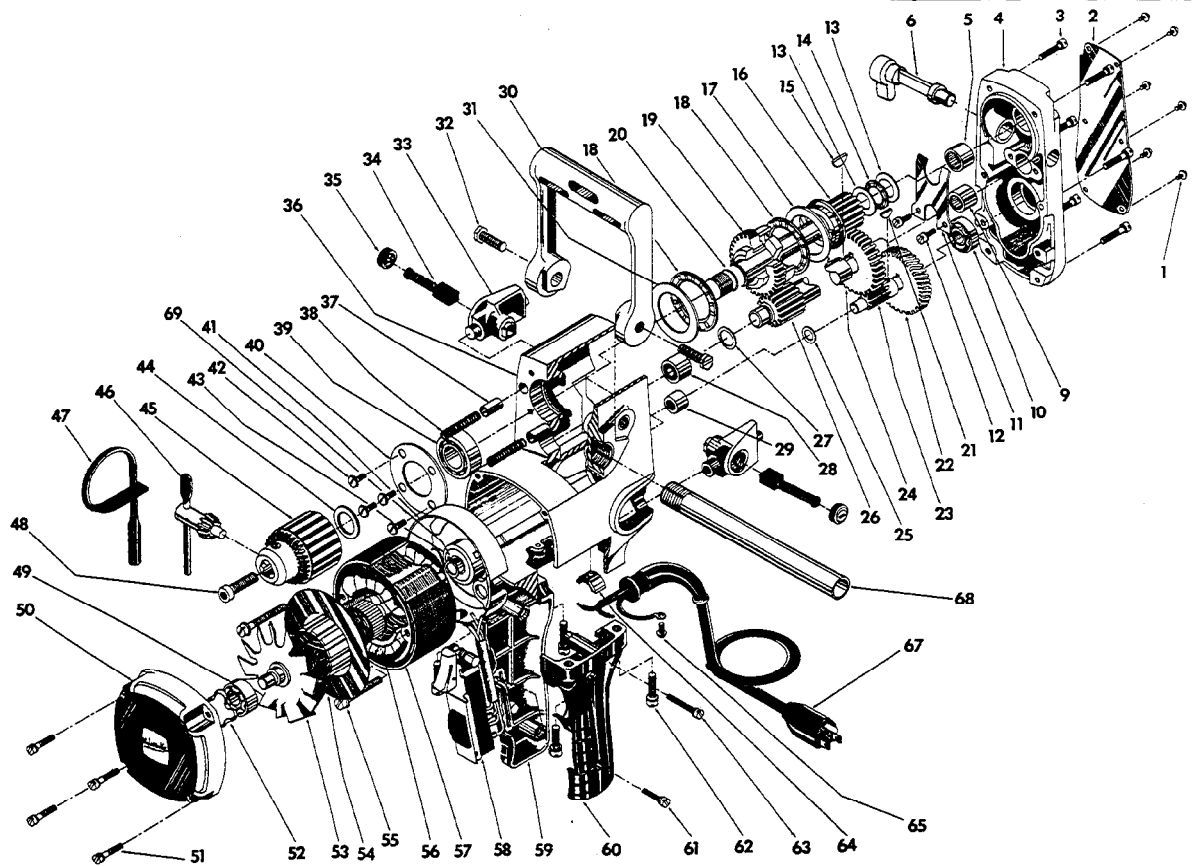


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	1	06-81-8200 4-36x3/16 Rd. Hd. Name Plate Scr.	(6)	36	28-50-6121	Motor Housing Assy.	
	2	12-98-7050 Name Plate		37	44-70-0160	Shifting Plunger	(2)
	3	06-81-6350 8-32x1 Fil. Hd. Gear Case Cover Scr.	(6)	38	40-50-7670	Shifting Spring	(2)
	4	28-20-1121 Gear Case Cover		39	02-04-1700	Ball Bearing	
	5	02-50-3170 Needle Bearing		40	44-66-5241	Bearing Retainer Plate	
★	6	31-11-0100 Shifting Cam		41	31-55-0060	Coil Shield	
	9	02-50-2750 Needle Bearing		42	06-81-5400	8-32x5/16 Binder Hd. Brg. Ret. Scr.	(4)
	10	02-04-0910 Ball Bearing		43	02-04-1050	Ball Bearing	
	11	45-98-0100 Shifting Yoke		44	45-88-0330	Chuck Spacer Washer	
	12	06-81-6050 8-32x5/16 Fil. Hd. Shifting Yoke Scr.	(2)	45	48-66-1380	Chuck	
	13	45-88-7150 Thrust Washer	(2)	46	48-66-3280	Chuck Key	
	14	02-80-6020 Thrust Bearing		47	48-66-4040	Key Holder	
	15	06-42-2000 No. 3 Woodruff Key		48	06-75-3150	1/4-20x1 Soc. Hd. Chuck Ret. Scr.	
	16	32-10-0132 Hi-Speed Clutch Gear Assy.		49	02-04-0940	Ball Bearing	
	17	45-88-7140 Thrust Washer		50	28-50-6111	Bearing Support Housing Assy.	
	18	02-80-1800 Thrust Bearing	(2)	51	06-81-6200	8-32x5/8 Fil. Hd. Brg. Support Hsg. Scr.	(4)
	19	32-10-0122 Lo-Speed Clutch Gear Assy.		52	45-88-7110	Spring Washer	
	20	38-50-4991 Spindle		★ 53	16-62-1165	Armature Assy.	
	21	06-42-1200 No. 212 Woodruff Key		54	42-14-0150	Baffle	
	22	32-42-1301 1st. Intermediate Gear		55	06-81-6700	8-32x1 7/8 Fil. Hd. Field Scr.	(2)
	23	36-66-4071 1st. Intermediate Pinion		56	18-62-1120	Field Assy.	
	24	32-44-1311 2nd. Intermediate Gear		57	23-16-0430	Field Insulator	
	25	45-88-7100 Fiber Thrust Washer		★ 58	23-66-0751	Switch	
	26	36-66-4081 2nd. Intermediate Pinion		59	31-44-0191	R.H. Drill Handle Assy.	
	27	45-88-7095 Fiber Thrust Washer		60	31-44-0180	L.H. Drill Handle	
	28	02-50-3180 Needle Bearing		61	06-81-6200	8-32x5/8 Fil. Hd. Handle Cover Scr.	
	29	02-50-2020 Needle Bearing		62	06-81-7560	12-24x7/8 Fil. Hd. Handle Ret. Scr.	(4)
	30	28-44-7151 Spade Handle		63	06-81-6400	8-32x1 1/8 Fil. Hd. Handle Cover Scr.	
	31	45-88-0520 Thrust Washer		64	31-55-0070	Power Cord Shield	
	32	45-04-0380 3/8-16x1 Hex Hd. Spade Handle Scr.	(2)	65	06-81-8625	6-32x1/4 Ground Screw	
★	33	22-22-0281 Brush Holder Assy.	(2)	67	22-64-0620	Cord Set	
★	34	22-18-0450 Carbon Brush Assy.	(2)	68	43-62-0120	Pipe Handle	
★	35	23-44-0130 Brush Retaining Cap	(2)	69	34-60-0827	Retaining Ring	



SERVICE PARTS LIST

BUL. 54-10-4003

HOLE HAWG

REVISED BUL 54-10-4002 DATE Dec. '73

Catalog No. 1675-1

Starting Serial No. 413-27172

WIRING INSTR. 58-01-0622

Both Model and Serial No. must be furnished to obtain correct parts.

230 VOLT
16-66-1165 Armature Assy.
18-66-1120 Field Assy.

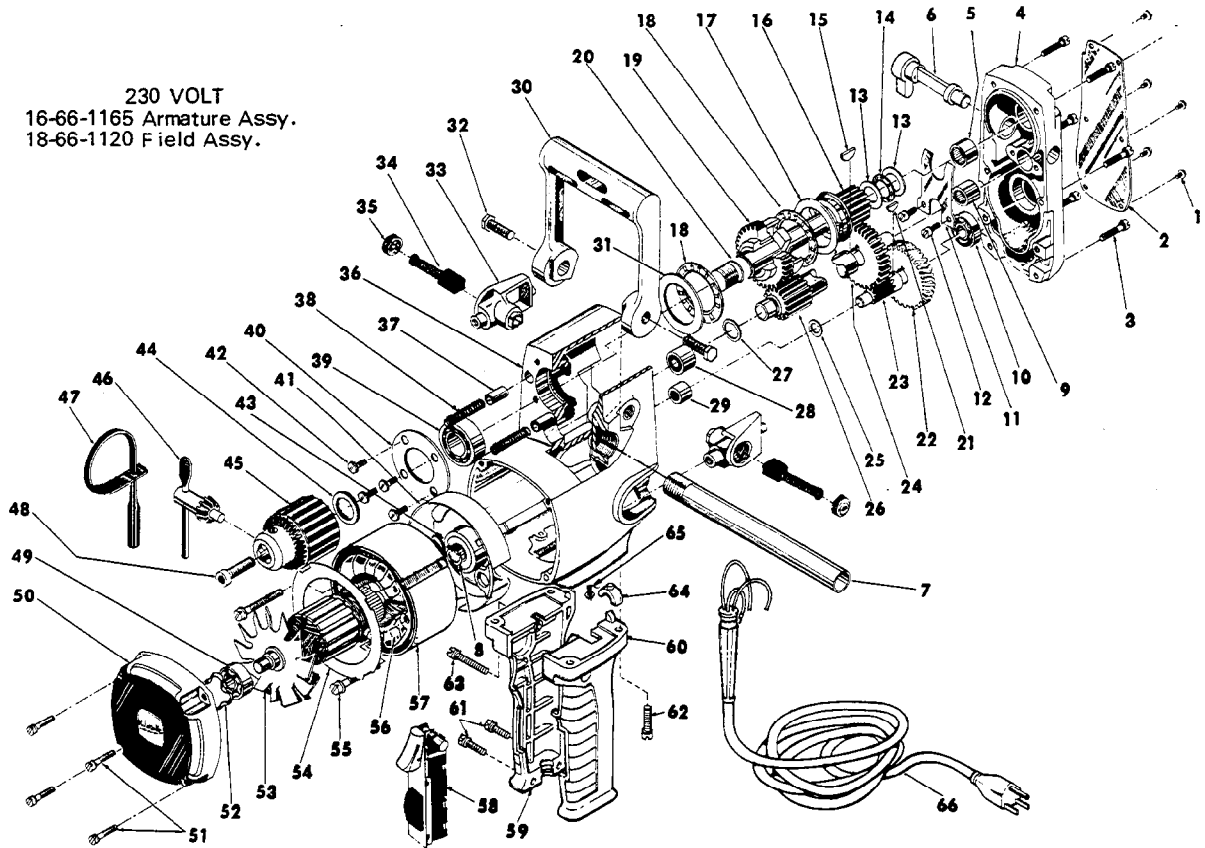


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	06-81-8200	4-36x3/16 Rd. Hd. Name Plate Scr.	(6)	34	22-18-0450	Carbon Brush Assy.	(2)
2	12-98-7050	Name Plate	(1)	35	23-44-0130	Brush Retaining Cap	(2)
3	06-81-6350	8-32x1 Fil. Hd. Gear Case Cover Scr.	(6)	36	28-50-6121	Motor Housing Assy.	(1)
4	28-20-1121	Gear Case Cover	(1)	37	44-70-0160	Shifting Plunger	(2)
5	02-50-3170	Needle Bearing	(1)	38	40-50-7670	Shifting Spring	(2)
6	31-11-0100	Shifting Cam	(1)	39	02-04-1700	Ball Bearing	(1)
7	43-62-0120	Pipe Handle	(1)	40	44-66-5241	Bearing Retainer Plate	(1)
8	34-60-0827	Retaining Ring	(1)	41	31-55-0060	Coil Shield	(1)
9	02-50-2750	Needle Bearing	(1)	42	06-81-5400	8-32x5/16 Binder Hd. Brg. Ret. Scr.	(4)
10	02-04-0910	Ball Bearing	(1)	43	02-04-1050	Ball Bearing	(1)
11	45-98-0100	Shifting Yoke	(1)	44	45-88-0330	Chuck Spacer Washer	(1)
12	06-81-6050	8-32x5/16 Fil. Hd. Shifting Yoke Scr.	(2)	45	48-66-1380	Chuck	(1)
13	45-88-7150	Thrust Washer	(2)	46	48-66-3280	Chuck Key	(1)
14	02-80-6020	Thrust Bearing	(1)	47	48-66-4040	Key Holder	(1)
15	06-42-2000	No. 3 Woodruff Key	(1)	48	06-75-3150	1/4-20x1 L.H. Soc. Hd. Cap Screw	(1)
16	32-10-0132	Hi-Speed Clutch Gear Assy.	(1)	49	02-04-0940	Ball Bearing	(1)
17	45-88-7140	Thrust Washer	(1)	50	28-50-6111	Bearing Support Housing Assy.	(1)
18	02-80-1800	Thrust Bearing	(2)	51	06-81-6200	8-32x5/8 Fil.Hd.Brg. Support Hsg.Scr.	(4)
19	32-10-0122	Lo-Speed Clutch Gear Assy.	(1)	52	45-88-7110	Spring Washer	(1)
20	38-50-4991	Spindle	(1)	53	16-62-1165	Armature Assy. (incl. fig. 8)	(1)
21	06-42-1200	No. 212 Woodruff Key	(1)	54	42-14-0150	Baffle	(1)
22	32-42-1301	1st. Intermediate Gear	(1)	★ 55	06-81-6600	8-32x1-3/4 Fil. Hd. Field Scr.	(2)
23	36-66-4071	1st. Intermediate Pinion	(1)	56	18-62-1120	Field Assy.	(1)
24	32-44-1311	2nd. Intermediate Gear	(1)	57	23-16-0430	Field Insulator	(1)
25	45-88-7100	Fiber Thrust Washer	(1)	58	23-66-0751	Switch	(1)
26	36-66-4081	2nd. Intermediate Pinion	(1)	★ 59	31-44-0220	R.H. Drill Handle	(1)
27	45-88-7095	Fiber Thrust Washer	(1)	★ 60	31-44-0230	L.H. Drill Handle	(1)
28	02-50-3180	Needle Bearing	(1)	61	06-81-6200	8-32x5/8 Fil.Hd. Handle Cover Scr.	(2)
29	02-50-2020	Needle Bearing	(1)	62	06-81-7560	12-24x7/8 Fil.Hd. Handle Ret. Scr.	(4)
30	28-44-7151	Spade Handle	(1)	63	06-81-6400	8-32x1 1/8 Fil.Hd. Handle Cover Scr.	(1)
31	45-88-0520	Thrust Washer	(1)	64	31-55-0070	Power Cord Shield	(1)
32	45-04-0380	3/8-16x1 Hex Hd. Spade Handle Scr.	(2)	65	06-81-8625	6-32x1/4 Ground Scr.	(1)
33	22-22-0281	Brush Holder Assy.	(2)	★ 66	22-64-0120	Cord Set	(1)
				★ 67	12-98-7081	Caution Plate (Not Shown)	



SERVICE PARTS LIST

BUL. 54-10-4004

HOLE HAWG

REVISED BUL. 54-10-4003 DATE Feb. '75

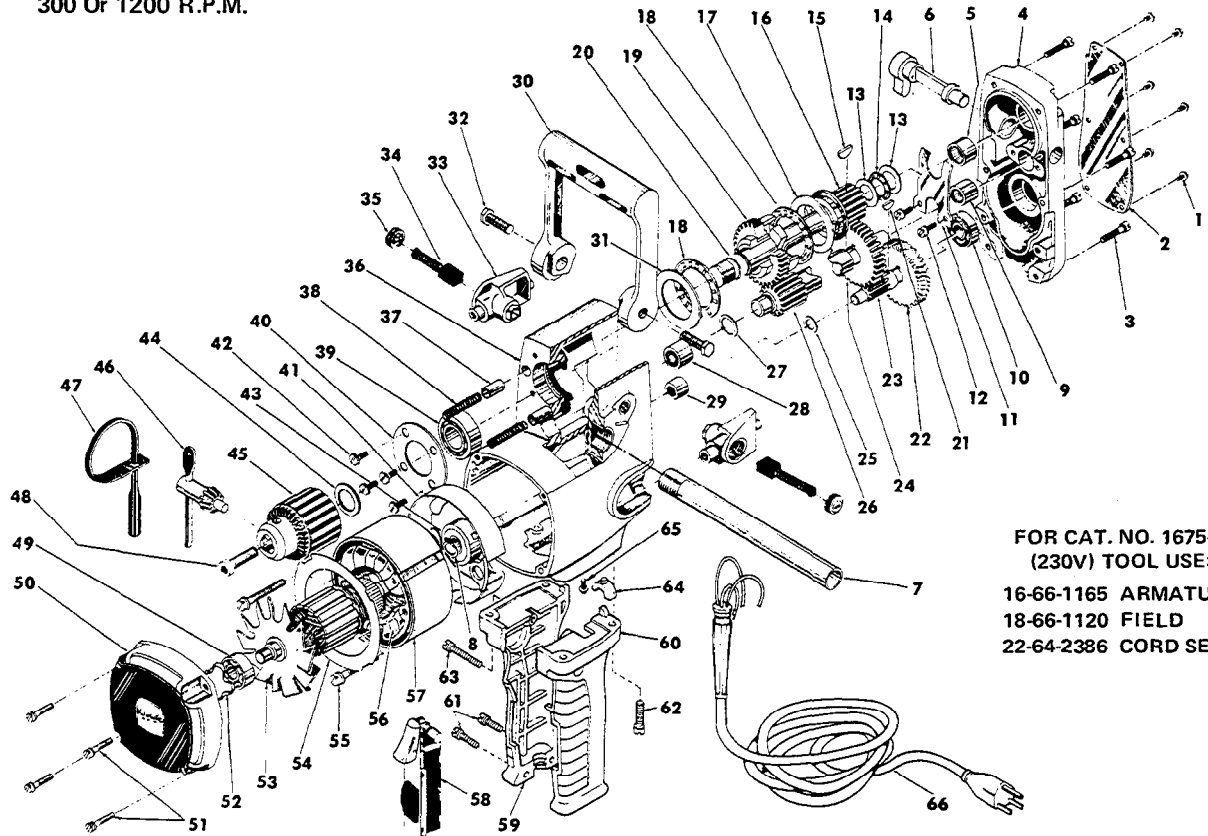
Catalog No. 1675-1

Starting Serial No. **413-65185**

WIRING INSTRUCTIONS **58-01-0623**

Specify Catalog and Serial No. when ordering parts

300 Or 1200 R.P.M.



FOR CAT. NO. 1675-3
(230V) TOOL USE:
16-66-1165 ARMATURE
18-66-1120 FIELD
22-64-2386 CORD SET

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	06-81-8200	4-36x3/16 Rd. Hd. Name Plate Scr.	(6)	34	22-18-0450	Carbon Brush Assy.	(2)
2	12-98-7050	Name Plate	(1)	35	23-44-0130	Brush Retaining Cap	(2)
3	06-81-6350	8-32x1 Fil. Hd. Gear Case Cover Scr.	(6)	36	28-50-6121	Motor Housing Assy.	(1)
4	28-20-1121	Gear Case Cover	(1)	37	44-70-0160	Shifting Plunger	(2)
5	02-50-3170	Needle Bearing	(1)	38	40-50-7670	Shifting Spring	(2)
6	31-11-0100	Shifting Cam	(1)	39	02-04-1700	Ball Bearing	(1)
7	43-62-0120	Pipe Handle	(1)	40	44-66-5241	Bearing Retainer Plate	(1)
8	34-60-0827	Retaining Ring	(1)	41	31-55-0060	Coil Shield	(1)
9	02-50-2750	Needle Bearing	(1)	42	06-81-5400	8-32x5/16 Binder Hd. Brg. Ret. Scr.	(4)
10	02-04-0910	Ball Bearing	(1)	43	02-04-1050	Ball Bearing	(1)
11	45-98-0100	Shifting Yoke	(1)	44	45-88-0330	Chuck Spacer Washer	(1)
12	06-81-6050	8-32x5/16 Fil. Hd. Shifting Yoke Scr.	(2)	45	48-66-1380	Chuck	(1)
13	45-88-7150	Thrust Washer	(1)	46	48-66-3280	Chuck Key	(1)
14	02-80-6020	Thrust Bearing	(1)	47	48-66-4040	Key Holder	(1)
15	06-42-2000	No. 3 Woodruff Key	(1)	48	06-75-3150	1/4-20x1 L.H. Soc. Hd. Cap Screw	(1)
16	32-10-0132	Hi-Speed Clutch Gear Assy.	(1)	49	02-04-0940	Ball Bearing	(1)
17	45-88-7140	Thrust Washer	(1)	50	28-50-6111	Bearing Support Housing Assy.	(1)
18	02-80-1800	Thrust Bearing	(2)	51	06-81-6200	8-32x5/8 Fil.Hd.Brg. Support Hsg.Scr.	(4)
19	32-10-0122	Lo-Speed Clutch Gear Assy.	(1)	52	45-88-7110	Spring Washer	(1)
20	38-50-4991	Spindle	(1)	53	16-62-1165	Armature Assy. (incl. fig. 8)	(1)
21	06-42-1200	No. 212 Woodruff Key	(1)	54	42-14-0150	Baffle	(1)
22	32-42-1301	1st. Intermediate Gear	(1)	★ 55	06-81-6700	8-32x 1-7/8 Fil. Hd. Field Scr.	(2)
23	36-66-4071	1st. Intermediate Pinion	(1)	56	18-62-1120	Field Assy.	(1)
24	32-44-1311	2nd. Intermediate Gear	(1)	57	23-16-0430	Field Insulator	(1)
25	45-88-7100	Fiber Thrust Washer	(1)	★ 58	23-66-0481	Switch	(1)
26	36-66-4081	2nd. Intermediate Pinion	(1)	★ 59	31-44-0500	R.H. Drill Handle	(1)
27	45-88-7095	Fiber Thrust Washer	(1)	★ 60	31-44-0510	L.H. Drill Handle	(1)
28	02-50-3180	Needle Bearing	(1)	61	06-81-6200	8-32x5/8 Fil.Hd. Handle Cover Scr.	(2)
29	02-50-2020	Needle Bearing	(1)	62	06-81-7560	12-24x7/8 Fil.Hd. Handle Ret. Scr.	(4)
30	28-44-7151	Spade Handle	(1)	63	06-81-6400	8-32x1 1/8 Fil.Hd. Handle Cover Scr.	(1)
31	45-88-0520	Thrust Washer	(1)	64	31-55-0070	Power Cord Shield	(1)
32	45-04-0380	3/8-16x1 Hex Hd. Spade Handle Scr.	(2)	65	06-81-8625	6-32x1/4 Ground Scr.	(1)
33	22-22-0281	Brush Holder Assy.	(2)	★ 66	22-64-0386	Cord Set	(1)
				67	12-98-7081	Caution Plate (Not Shown)	



SERVICE PARTS LIST

HOLE HAWG

Catalog No. 1675-1

Starting Serial No. 413-80949

Specify Catalog and Serial No. when ordering parts

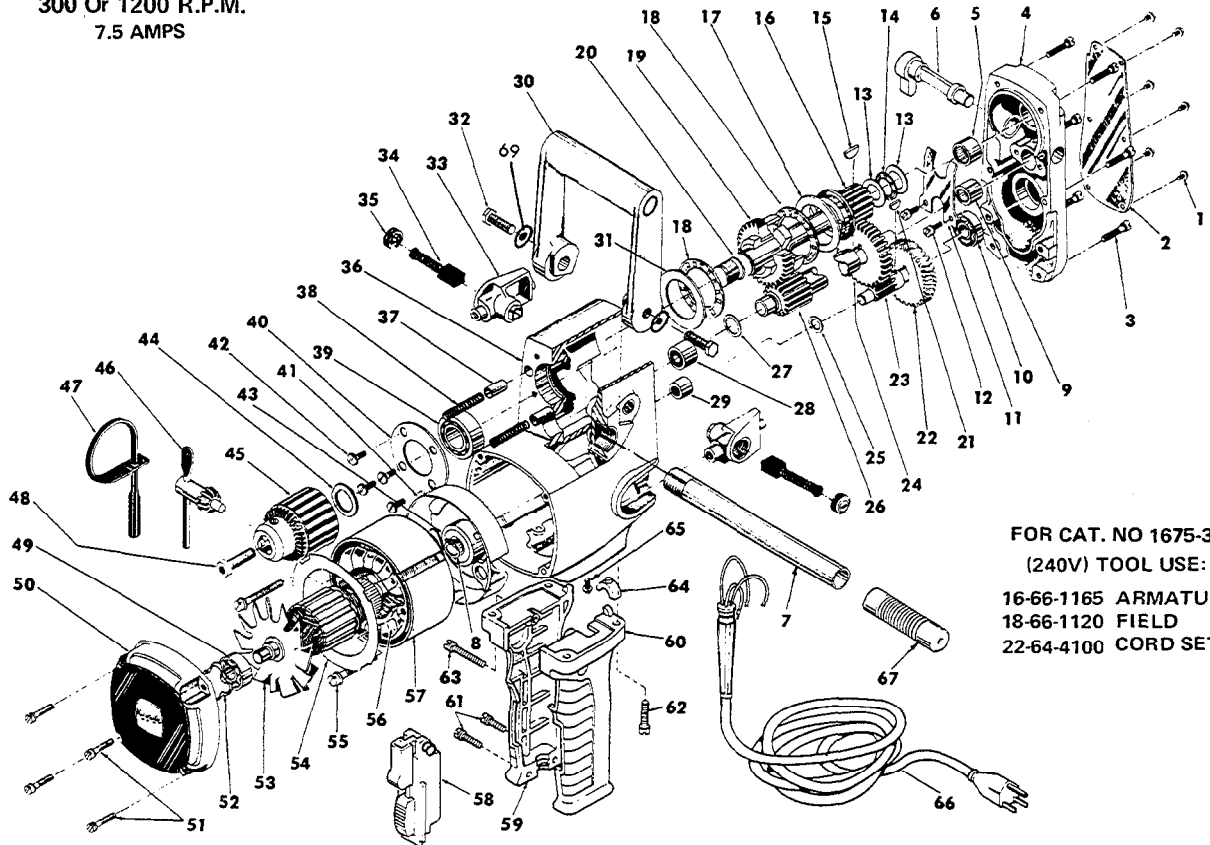
BUL. 54-10-4005

REVISED BUL.
54-10-4004

DATE
Sept. '78

WIRING INSTRUCTIONS
58-01-0624

300 Or 1200 R.P.M.
7.5 AMPS



FOR CAT. NO 1675-3
(240V) TOOL USE:
16-66-1165 ARMATURE
18-66-1120 FIELD
22-64-4100 CORD SET

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	
	1	06-81-8200	4-36x3/16 Rd. Hd. Name Plate Scr.	(6)	35	23-44-0130	Brush Retaining Cap	(2)
	2	12-98-7050	Name Plate	(1)	36	28-50-6121	Motor Housing Assy.	(1)
	3	06-81-6350	8-32x1 Fil. Hd. Gear Case Cover Scr.	(6)	37	44-70-0160	Shifting Plunger	(2)
	4	28-20-1121	Gear Case Cover	(1)	38	40-50-7670	Shifting Spring	(2)
	5	02-50-3170	Needle Bearing	(1)	39	02-04-1700	Ball Bearing	(1)
	6	31-11-0100	Shifting Cam	(1)	40	44-66-5241	Bearing Retainer Plate	(1)
	7	43-62-0120	Pipe Handle	(1)	41	31-55-0060	Coil Shield	(1)
	8	34-60-0827	Retaining Ring	(1)	★ 42	06-81-5502	8-32x3/8 Comb. Phil. Hd. Sem	(4)
	9	02-50-2750	Needle Bearing	(1)	43	02-04-1050	Ball Bearing	(1)
	10	02-04-0910	Ball Bearing	(1)	44	45-88-0330	Chuck Spacer Washer	(1)
	11	45-98-0100	Shifting Yoke	(1)	45	48-66-1380	Chuck	(1)
	12	06-81-6050	8-32x5/16 Fil. Hd. Shifting Yoke Scr.	(2)	46	48-66-3280	Chuck Key	(1)
	13	45-88-7150	Thrust Washer	(2)	47	48-66-4040	Key Holder	(1)
	14	02-80-6020	Thrust Bearing	(1)	48	06-75-3150	1/4-20x1 L.H. Soc. Hd. Cap Screw	(1)
	15	06-42-2000	No. 3 Woodruff Key	(1)	49	02-04-0940	Ball Bearing	(1)
	16	32-10-0132	Hi-Speed Clutch Gear Assy.	(1)	50	28-50-6111	Bearing Support Housing Assy.	(1)
	17	45-88-7140	Thrust Washer	(1)	51	06-81-6202	8-32x5/8 Fil.Hd.Brg. Support Hsg.Scr.	(4)
	18	02-80-1800	Thrust Bearing	(2)	52	45-88-7110	Spring Washer	(1)
	19	32-10-0122	Lo-Speed Clutch Gear Assy.	(1)	53	16-62-1165	Armature Assy. (incl. fig. 8)	(1)
	20	38-50-4991	Spindle	(1)	54	42-14-0150	Baffle	(1)
	21	06-42-1200	No. 212 Woodruff Key	(1)	55	06-81-6700	8-32x 1-7/8 Fil. Hd. Field Scr.	(2)
	22	32-42-1301	1st. Intermediate Gear	(1)	56	18-62-1120	Field Assy.	(1)
	23	36-66-4071	1st. Intermediate Pinion	(1)	57	23-16-0430	Field Insulator	(1)
	24	32-44-1311	2nd. Intermediate Gear	(1)	★ 58	23-66-1020	Switch	(1)
	25	45-88-7100	Fiber Thrust Washer	(1)	59	31-44-0500	R.H. Drill Handle	(1)
	26	36-66-4081	2nd. Intermediate Pinion	(1)	60	31-44-0510	L.H. Drill Handle	(1)
	27	45-88-7095	Fiber Thrust Washer	(1)	61	06-81-6202	8-32x5/8 Fil.Hd. Handle Cover Scr.	(2)
	28	02-50-3180	Needle Bearing	(1)	62	06-81-7560	12-24x7/8 Fil.Hd. Handle Ret. Scr.	(4)
	29	02-50-2020	Needle Bearing	(1)	63	06-81-6402	8-32x1 1/8 Fil.Hd. Handle Cover Scr.	(1)
★	30	31-44-1100	Spade Handle	(1)	64	31-55-0070	Power Cord Shield	(1)
	31	45-88-0520	Thrust Washer	(1)	65	06-81-8625	6-32x1/4 Ground Scr.	(1)
★	32	06-75-0500	3/8-16x1 Hex Hd. Spade Handle Scr.	(2)	66	22-64-0386	Cord Set	(1)
	33	22-22-0281	Brush Holder Assy.	(2)	★ 67	43-62-0242	Handle Grip	(1)
	34	22-18-0450	Carbon Brush Assy.	(2)	68	12-98-7081	Caution Plate (Not Shown)	
					★ 69	45-88-0605	Flat Washer	(2)

SERVICE PARTS LIST

BULLETIN NO.
54-10-4006

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-10-4005	DATE Oct. '82
TWO SPEED HOLE HAWG			
CATALOG NO. 1675-1		STARTING SERIAL NO. 413-177000	
CAT. NO. 1675-6		START SER. NO. 413-01001	BILINGUAL LABEL 10-98-6400

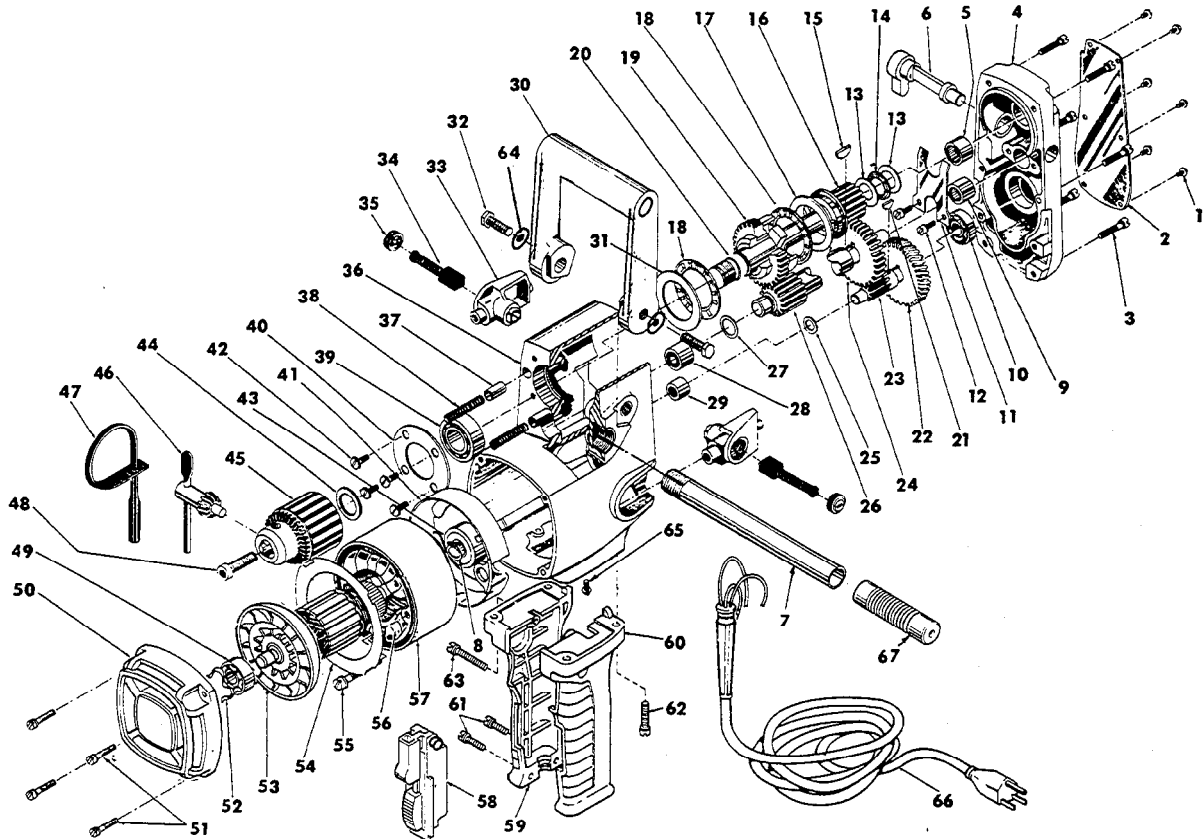


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	06-81-8200	4-36 x 3/16 Rd. Hd. Nameplate Scr.	(6)
2	12-98-7050	Nameplate	(1)
3	06-81-6350	8-32 x 1 Fil. Hd. Gear Case Cover Scr.	(6)
4	28-20-1121	Gear Case Cover	(1)
5	02-50-3170	Needle Bearing	(1)
6	31-11-0100	Shifting Cam	(1)
7	43-62-0120	Pipe Handle	(1)
8	34-60-0827	Retaining Ring	(1)
9	02-50-2750	Needle Bearing	(1)
10	02-04-0910	Ball Bearing	(1)
11	45-98-0100	Shifting Yoke	(1)
12	06-81-6050	8-32 x 5/16 Fil. Hd. Shifting Yoke Scr.	(2)
13	45-88-7150	Thrust Washer	(2)
14	02-80-6020	Thrust Bearing	(1)
15	06-42-2000	No. 3 Woodruff Key	(1)
16	32-10-0132	Hi-Speed Clutch Gear Assy.	(1)
17	45-88-7140	Thrust Washer	(1)
18	02-80-1800	Thrust Bearing	(2)
19	32-10-0122	Lo-Speed Clutch Gear Assy.	(1)
20	38-50-4991	Spindle	(1)
21	06-42-1200	No. 212 Woodruff Key	(1)
22	32-42-1301	1st. Intermediate Gear	(1)
23	36-66-4071	1st. Intermediate Pinion	(1)
24	32-44-1311	2nd. Intermediate Gear	(1)
25	45-88-7100	Fiber Thrust Washer	(1)
26	36-66-4081	2nd. Intermediate Pinion	(1)
27	45-88-7095	Fiber Thrust Washer	(1)
28	02-50-3180	Needle Bearing	(1)
29	02-50-2020	Needle Bearing	(1)
30	31-44-1100	Spade Handle	(1)
31	45-88-0520	Thrust Washer	(1)
32	06-75-0500	3/8-16 x 1 Hex Hd. Spade Handle Scr.	(2)
★ 33	22-22-0285	Brush Holder Assy.	(2)
34	22-18-0450	Carbon Brush Assy.	(2)
35	23-44-0130	Brush Retaining Cap	(2)
★ 36	28-50-6125	Motor Housing Assy.	(1)
37	44-70-0160	Shifting Plunger	(2)
38	40-50-7670	Shifting Spring	(2)
39	02-04-1700	Ball Bearing	(1)
40	44-66-5241	Bearing Retainer Plate	(1)
★ 41	31-55-0062	Coil Shield	(1)
42	06-81-5502	8-32 x 3/8 Comb. Phil. Hd. Sem.	(4)
43	02-04-1050	Ball Bearing	(1)
44	45-88-0330	Chuck Spacer Washer	(1)
45	48-66-1380	Chuck	(1)
46	48-66-3280	Chuck Key	(1)
47	48-66-4040	Key Holder	(1)
48	06-75-3150	1/4-20 x 1 L.H. Soc. Hd. Cap Screw	(1)
49	02-04-0940	Ball Bearing	(1)
★ 50	28-50-6230	Bearing Support Housing	(1)
51	06-81-6202	8-32 x 5/8 Fil. Hd. Brg. Support Hsg. Scr.	(4)
52	45-88-7110	Spring Washer	(1)
★ 53	16-50-0070	Armature Assy. (Incl. 22-84-0660 Fan & Fig. 8)	(1)
54	42-14-0150	Baffle	(1)
★ 55	06-95-3290	8-16 x 1-7/8" Plastite Pan Hd. Screw	(2)
★ 56	18-50-0070	Field Assy.	(1)
★ 57	23-16-0425	Field Insulator	(1)
58	23-66-1020	Switch	(1)
59	31-44-0500	R.H. Drill Handle	(1)
60	31-44-0510	L.H. Drill Handle	(1)
61	06-81-6202	8-32 x 5/8 Fil. Hd. Handle Cover Scr.	(2)
62	06-81-7560	12-24 x 7/8 Fil. Hd. Handle Ret. Scr.	(4)
63	06-81-6402	8-32 x 1-1/8 Fil. Hd. Handle Cover Scr.	(1)
64	45-88-0605	Flat Washer	(2)
65	06-81-8625	6-32 x 1/4 Ground Scr.	(1)
★ 66	22-64-0387	Cord Set	(1)
67	43-62-0242	Handle Grip	(1)
68	10-98-5987	Caution Label (Not Shown) Omit For Canadian Tools	(1)



SERVICE PARTS LIST

BULLETIN NO.
54-10-4007

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-10-4006	DATE Aug. '84
TWO SPEED HOLE HAWG			
CATALOG NO. 1675-1		STARTING SERIAL NO. 413-191501	
CAT. NO. 1675-6		START SER. NO. 413-191501	BILINGUAL LABEL 10-98-6400
WIRING INSTRUCTION 58-01-0625			

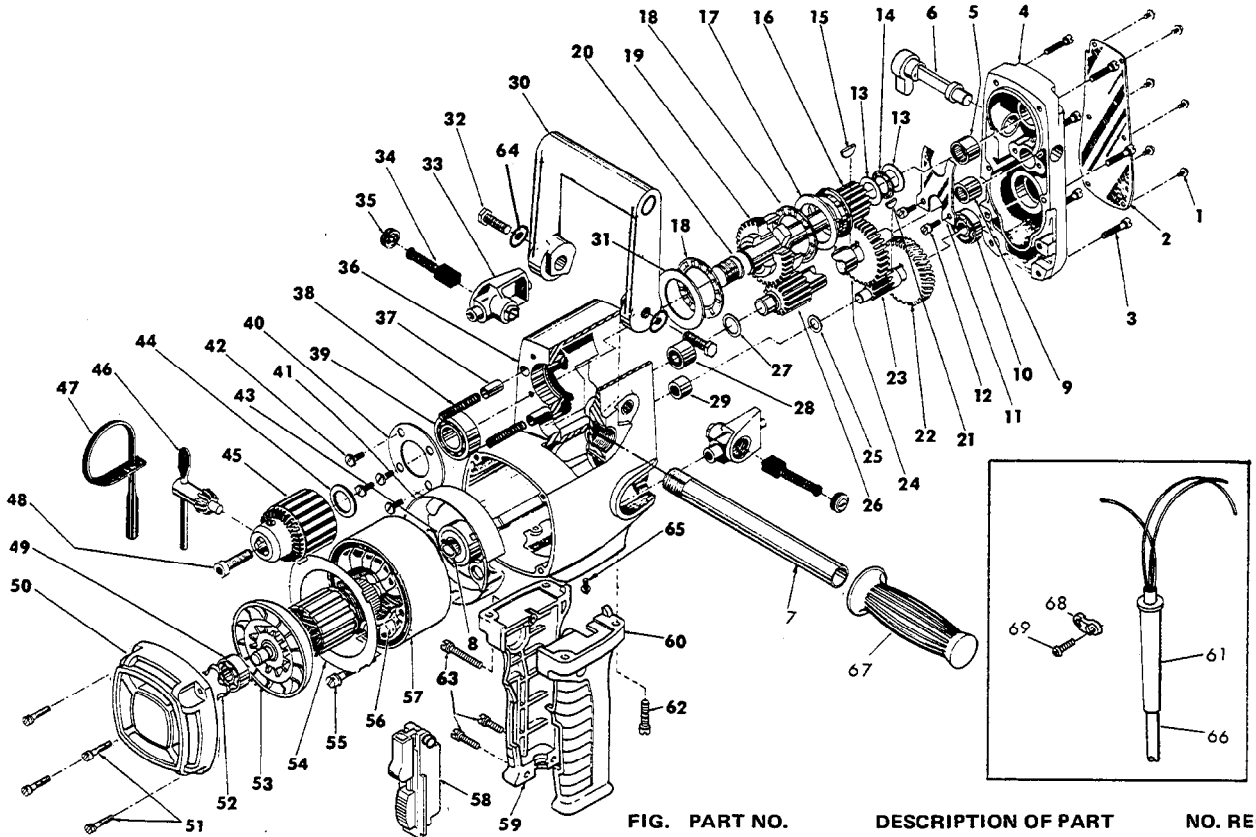


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★	1	06-81-8400 4-40 x 1/4" Rd. Hd. Nameplate Scr.	(6)
	2	12-98-7050 Nameplate	(1)
	3	06-81-6350 8-32 x 1 Fil. Hd. Gear Case Cover Scr.	(6)
★	4	28-20-1122 Gear Case Cover	(1)
	5	02-50-3170 Needle Bearing	(1)
	6	31-11-0100 Shifting Cam	(1)
	7	43-62-0120 Pipe Handle	(1)
	8	34-60-0827 Retaining Ring	(1)
	9	02-50-2750 Needle Bearing	(1)
	10	02-04-0910 Ball Bearing	(1)
	11	45-98-0100 Shifting Yoke	(1)
	12	06-81-6050 8-32 x 5/16 Fil. Hd. Shifting Yoke Scr.	(2)
	13	45-88-7150 Thrust Washer	(2)
	14	02-80-6020 Thrust Bearing	(1)
	15	06-42-2000 No. 3 Woodruff Key	(1)
	16	32-10-0132 Hi-Speed Clutch Gear Assy.	(1)
	17	45-88-7140 Thrust Washer	(1)
	18	02-80-1800 Thrust Bearing	(2)
	19	32-10-0122 Lo-Speed Clutch Gear Assy.	(1)
	20	38-50-4991 Spindle	(1)
	21	06-42-1200 No. 212 Woodruff Key	(1)
	22	32-42-1301 1st. Intermediate Gear	(1)
	23	36-66-4071 1st. Intermediate Pinion	(1)
	24	32-44-1311 2nd. Intermediate Gear	(1)
	25	45-88-7100 Fiber Thrust Washer	(1)
	26	36-66-4081 2nd. Intermediate Pinion	(1)
	27	45-88-7095 Fiber Thrust Washer	(1)
	28	02-50-3180 Needle Bearing	(1)
	29	02-50-2020 Needle Bearing	(1)
	30	31-44-1100 Spade Handle	(1)
	31	45-88-0520 Thrust Washer	(1)
	32	06-75-0500 3/8-16 x 1 Hex Hd. Spade Handle Scr.	(2)
	33	22-22-0285 Brush Holder Assy.	(2)
	34	22-18-0450 Carbon Brush Assy.	(2)
	35	23-44-0130 Brush Retaining Cap	(2)
	36	28-50-6125 Motor Housing Assy.	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	37	44-70-0160 Shifting Plunger	(2)
	38	40-50-7670 Shifting Spring	(2)
	39	02-04-1700 Ball Bearing	(1)
	40	44-66-5241 Bearing Retainer Plate	(1)
★	41	31-55-0065 Coil Shield	(1)
	42	06-81-5502 8-32 x 3/8 Comb. Phil. Hd. Sem.	(4)
	43	02-04-1050 Ball Bearing	(1)
	44	45-88-0330 Chuck Spacer Washer	(1)
	45	48-66-1380 Chuck	(1)
	46	48-66-3280 Chuck Key	(1)
	47	48-66-4040 Key Holder	(1)
	48	06-75-3150 1/4-20 x 1 L.H. Soc. Hd. Cap Screw	(1)
	49	02-04-0940 Ball Bearing	(1)
	50	28-50-6230 Bearing Support Housing	(1)
	51	06-81-6202 8-32 x 5/8 Fil. Hd. Brg. Support Hsg. Scr.	(4)
	52	45-88-7110 Spring Washer	(1)
	53	16-50-0070 Armature Assy. (Incl. 22-84-0660 Fan & Fig. 8)	(1)
	54	42-14-0150 Baffle	(1)
	55	06-95-3285 8-16 x 1-13/16" Plastite Pan Hd. Screw	(2)
	56	18-50-0070 Field Assy.	(1)
	57	23-16-0425 Field Insulator	(1)
	58	23-66-1020 Switch	(1)
★	59	31-44-1290 R.H. Drill Handle	(1)
★	60	31-44-1295 L.H. Drill Handle	(1)
★	61	44-76-0150 Cord Protector	(1)
	62	06-81-7560 12-24 x 7/8 Fil. Hd. Handle Ret. Scr.	(4)
★	63	06-95-0219 8-16 x 7/8" Plastite Screw	(3)
	64	45-88-0605 Flat Washer	(2)
	65	06-81-8625 6-32 x 1/4 Ground Scr.	(1)
★	66	22-64-0121 Cord Set	(1)
★	67	43-62-0246 Handle Grip	(1)
★	68	31-17-0156 Cord Clamp	(1)
★	69	06-95-0216 8-16 x 5/8" Plastite Screw	(2)
	70	10-98-5987 Caution Label (Not Shown) Omit For Canadian Tools	(1)



SERVICE PARTS LIST

BULLETIN NO.
54-10-4008

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-10-4007	DATE May '86
TWO SPEED HOLE HAWG			
CATALOG NO. 1675-1		STARTING SERIAL NO. 413-260800	
		WIRING INSTRUCTION 58-01-0625	
CAT. NO.	START SER. NO.	BILINGUAL LABEL	

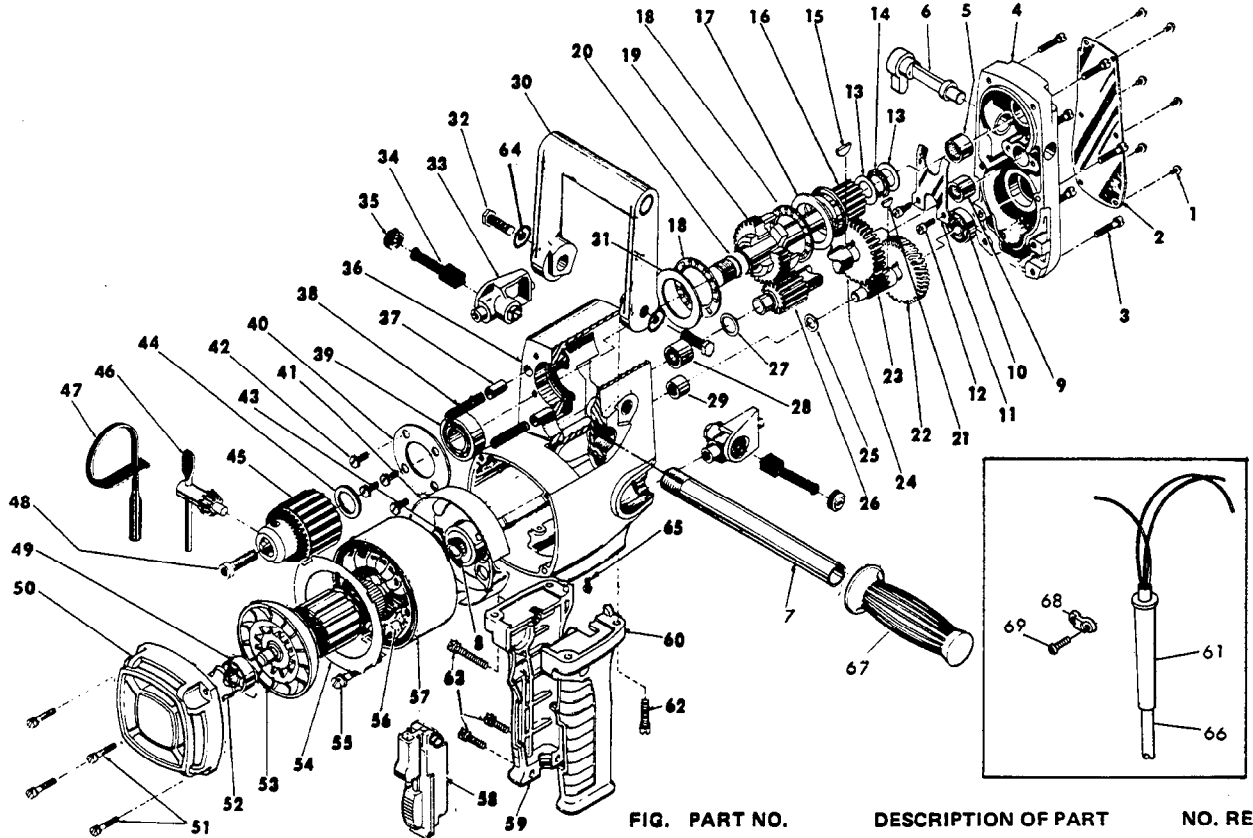


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	1	06-81-8400 4-40 x 1/4" Rd. Hd. Nameplate Scr.	(8)
	2	12-98-7050 Nameplate	(1)
	3	06-81-6350 8-32 x 1 Fil. Hd. Gear Case Cover Scr.	(8)
	4	28-20-1122 Gear Case Cover	(1)
	5	02-50-3170 Needle Bearing	(1)
	6	31-11-0100 Shifting Cam	(1)
★	7	43-62-0122 Pipe Handle	(1)
	8	34-60-0827 Retaining Ring	(1)
	9	02-50-2750 Needle Bearing	(1)
	10	02-04-0910 Ball Bearing	(1)
	11	45-98-0100 Shifting Yoke	(1)
	12	06-81-6050 8-32 x 5/16 Fil. Hd. Shifting Yoke Scr.	(2)
	13	45-88-7150 Thrust Washer	(2)
	14	02-80-6020 Thrust Bearing	(1)
	15	06-42-2000 No. 3 Woodruff Key	(1)
	16	32-10-0132 Hi-Speed Clutch Gear Assy.	(1)
	17	45-88-7140 Thrust Washer	(1)
	18	02-80-1800 Thrust Bearing	(2)
	19	32-10-0122 Lo-Speed Clutch Gear Assy.	(1)
	20	38-50-4991 Spindle	(1)
	21	06-42-1200 No. 212 Woodruff Key	(1)
	22	32-42-1301 1st. Intermediate Gear	(1)
	23	36-66-4071 1st. Intermediate Pinion	(1)
	24	32-44-1311 2nd. Intermediate Gear	(1)
	25	45-88-7100 Fiber Thrust Washer	(1)
	26	36-66-4081 2nd. Intermediate Pinion	(1)
	27	45-88-7095 Fiber Thrust Washer	(1)
	28	02-50-3180 Needle Bearing	(1)
	29	02-50-2020 Needle Bearing	(1)
	30	31-44-1100 Spade Handle	(1)
	31	45-88-0520 Thrust Washer	(1)
	32	06-75-0500 3/8-16 x 1 Hex Hd. Spade Handle Scr.	(2)
	33	22-22-0285 Brush Holder Assy.	(2)
	34	22-18-0450 Carbon Brush Assy.	(2)
	35	23-44-0135 Brush Retaining Cap	(2)
	36	28-50-6125 Motor Housing Assy.	(1)
	37	44-70-0160 Shifting Plunger	(2)
	38	40-60-7670 Shifting Spring	(2)
	39	02-04-1700 Ball Bearing	(1)
	40	44-66-5241 Bearing Retainer Plate	(1)
	41	31-55-0065 Coil Shield	(1)
	42	06-81-5502 8-32 x 3/8 Comb. Phil. Hd. Sem.	(4)
	43	02-04-1050 Ball Bearing	(1)
	44	45-88-0330 Chuck Spacer Washer	(1)
	45	49-66-1380 Chuck	(1)
	46	48-66-3280 Chuck Key	(1)
	47	48-66-4040 Key Holder	(1)
	48	06-75-3150 1/4-20 x 1 L.H. Soc. Hd. Cap Screw	(1)
★	49	02-04-0911 Ball Bearing	(1)
★	50	28-50-6235 Bearing Support Housing	(1)
	51	06-81-6202 8-32 x 5/8 Fil. Hd. Brg. Support Hsg. Scr.	(4)
	52	45-88-7110 Spring Washer	(1)
	53	16-50-0070 Armature Assy. (Incl. 22-84-0660 Fan & Fig. 8)	(1)
	54	42-14-0150 Baffle	(1)
	55	06-95-3285 8-16 x 1-13/16" Plastite Pan Hd. Screw	(2)
	56	18-50-0070 Field Assy.	(1)
	57	23-16-0425 Field Insulator	(1)
	58	23-66-1020 Switch	(1)
★	59	31-44-1440 R.H. Drill Handle	(1)
★	60	31-44-1445 L.H. Drill Handle	(1)
	61	44-76-0150 Cord Protector	(1)
★	62	06-82-5358 12 - 24 x 3/4" Pan Hd. Taptite Screw	(4)
★	63	06-82-7326 8-16 x 1" Plastite Screw	(3)
	64	45-88-0605 Flat Washer	(2)
	65	06-81-8625 6-32 x 1/4 Ground Scr.	(1)
	66	22-64-0121 Cord Set	(1)
	67	43-62-0246 Handle Grip	(1)
	68	31-17-0156 Cord Clamp	(1)
	69	06-95-0216 8-16 x 5/8" Plastite Screw	(2)
★	70	10-98-5986 Caution Label (Not Shown)	(1)



SERVICE PARTS LIST

**BULLETIN NO.
54-10-4009**

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-10-4008	DATE Mar. '88
TWO SPEED HOLE HAWG			
CATALOG NO. 1675-1	STARTING SERIAL NO. 413-314575	WIRING INSTRUCTION 58-01-0626	

EXAMPLE:

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

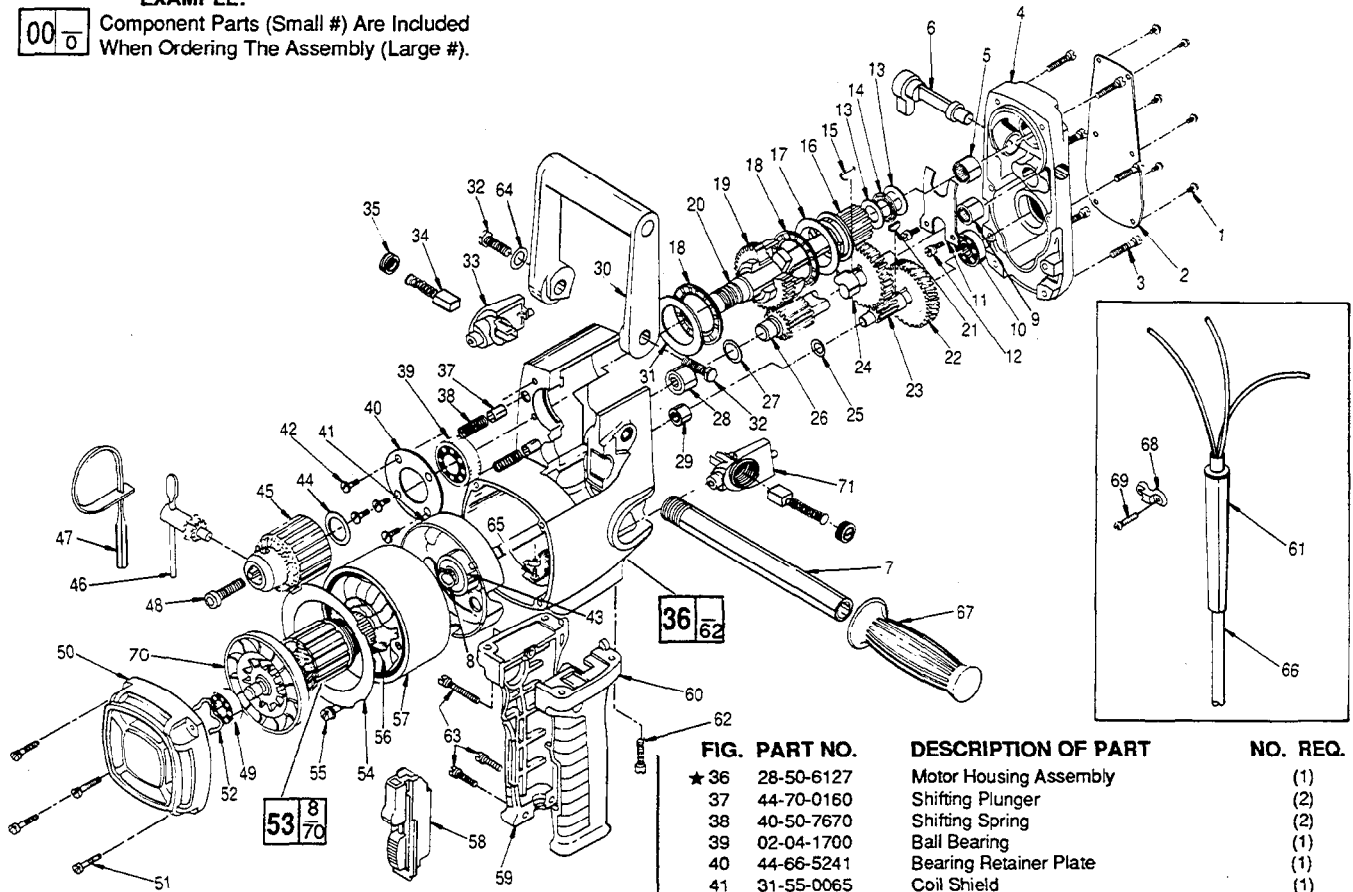
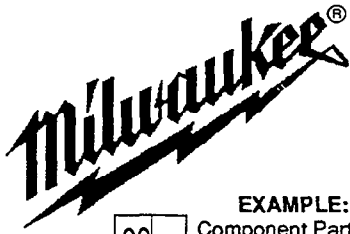


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	06-81-8400	4-40x1/4" Rd. Hd. Nameplate Screw	(6)
2	12-98-7050	Nameplate	(1)
3	06-81-6350	8-32x1" Fil. Hd. Gear Case Cover Screw	(6)
4	28-20-1122	Gear Case Cover	(1)
5	02-50-3170	Needle Bearing	(1)
6	31-11-0100	Shifting Cam	(1)
7	43-62-0122	Pipe Handle	(1)
8	34-60-0827	Retaining Ring	(1)
9	02-50-2750	Needle Bearing	(1)
10	02-04-0910	Ball Bearing	(1)
11	45-98-0100	Shifting Yoke	(1)
12	06-81-6050	8-32x5/16" Fil. Hd. Shifting Yoke Screw	(2)
13	45-88-7150	Thrust Washer	(2)
14	02-80-6020	Thrust Bearing	(1)
15	06-42-2000	No. 3 Woodruff Key	(1)
16	32-10-0132	Hi-Speed Clutch Gear Assembly	(1)
17	45-88-7140	Thrust Washer	(1)
18	02-80-1800	Thrust Bearing	(2)
19	32-10-0122	Lo-Speed Clutch Gear Assembly	(1)
20	38-50-4991	Spindle	(1)
21	06-42-1200	No. 212 Woodruff Key	(1)
22	32-42-1301	1st. Intermediate Gear	(1)
23	36-66-4071	1st. Intermediate Pinion	(1)
24	32-44-1311	2nd. Intermediate Gear	(1)
25	45-88-7100	Fiber Thrust Washer	(1)
26	36-66-4081	2nd Intermediate Pinion	(1)
27	45-88-7095	Fiber Thrust Washer	(1)
28	02-50-3180	Needle Bearing	(1)
29	02-50-2020	Needle Bearing	(1)
30	31-44-1100	Spade Handle	(1)
31	45-88-0520	Thrust Washer	(1)
32	06-75-0500	3/8-16 x 1" Hex Hd. Spade Handle Screw	(2)
★33	22-22-1350	R. H. Brush Holder Assembly	(1)
★34	22-18-0670	Carbon Brush Assembly	(2)
★35	23-44-0220	Brush Retaining Cap	(2)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★36	28-50-6127	Motor Housing Assembly	(1)
37	44-70-0160	Shifting Plunger	(2)
38	40-50-7670	Shifting Spring	(2)
39	02-04-1700	Ball Bearing	(1)
40	44-66-5241	Bearing Retainer Plate	(1)
41	31-55-0065	Coil Shield	(1)
42	06-81-5502	8-32x3/8" Comb. Phil. Hd. Sem.	(4)
43	02-04-1050	Ball Bearing	(1)
44	45-88-0330	Chuck Spacer Washer	(1)
★45	48-66-1381	Chuck	(1)
46	48-66-3280	Chuck Key	(1)
47	48-66-4040	Key Holder	(1)
48	06-75-3150	1/4-20x1" L.H. Soc. Hd. Cap Screw	(1)
49	02-04-0911	Ball Bearing	(1)
50	28-50-6235	Bearing Support Housing	(1)
51	06-81-6202	8-32x5/8" Fil. Hd. Brg. Support Hsg. Scr.	(4)
52	45-88-7110	Spring Washer	(1)
53	16-50-0070	Armature Assembly	(1)
54	42-14-0150	Baffle	(1)
★55	06-95-3290	8-16x1-7/8" Plastite Pan Hd. Screw	(2)
★56	18-50-0075	Field Assembly	(1)
57	23-16-0425	Field Insulator	(1)
58	23-66-1020	Switch	(1)
59	31-44-1440	R.H. Drill Handle	(1)
60	31-44-1445	L.H. Drill Handle	(1)
61	44-76-0150	Cord Protector	(1)
62	06-82-5358	12-24x3/4" Pan Hd. Taptite Screw	(4)
63	06-82-7326	8-16x1" Plastite Screw	(3)
64	45-88-0605	Flat Washer	(2)
65	06-81-8625	6-32x1/4" Ground Screw	(1)
66	22-64-0121	Cord Set	(1)
67	43-62-0246	Handle Grip	(1)
68	31-17-0156	Cord Clamp	(1)
★69	06-82-7270	8-16x5/8" Pan Hd. Sit. Torx Plastite Screw	(2)
70	22-84-0660	Fan	(1)
★71	22-22-1355	L.H. Brush Holder Assembly	(1)
	10-98-5986	Caution Label	(1)

FIG. LUBRICATION

24 4oz. Type "E" Grease, No. 49-08-4121.
Pre-lube all needle bearings with Type "E" Grease, No. 49-08-4121.



SERVICE PARTS LIST

BULLETIN NO.
54-10-4010

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-10-4009	DATE May '89
TWO SPEED HOLE HAWG			
CATALOG NO. 1675-1	STARTING SERIAL NO. 413-336097	WIRING INSTRUCTION 58-01-0626	

EXAMPLE:

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

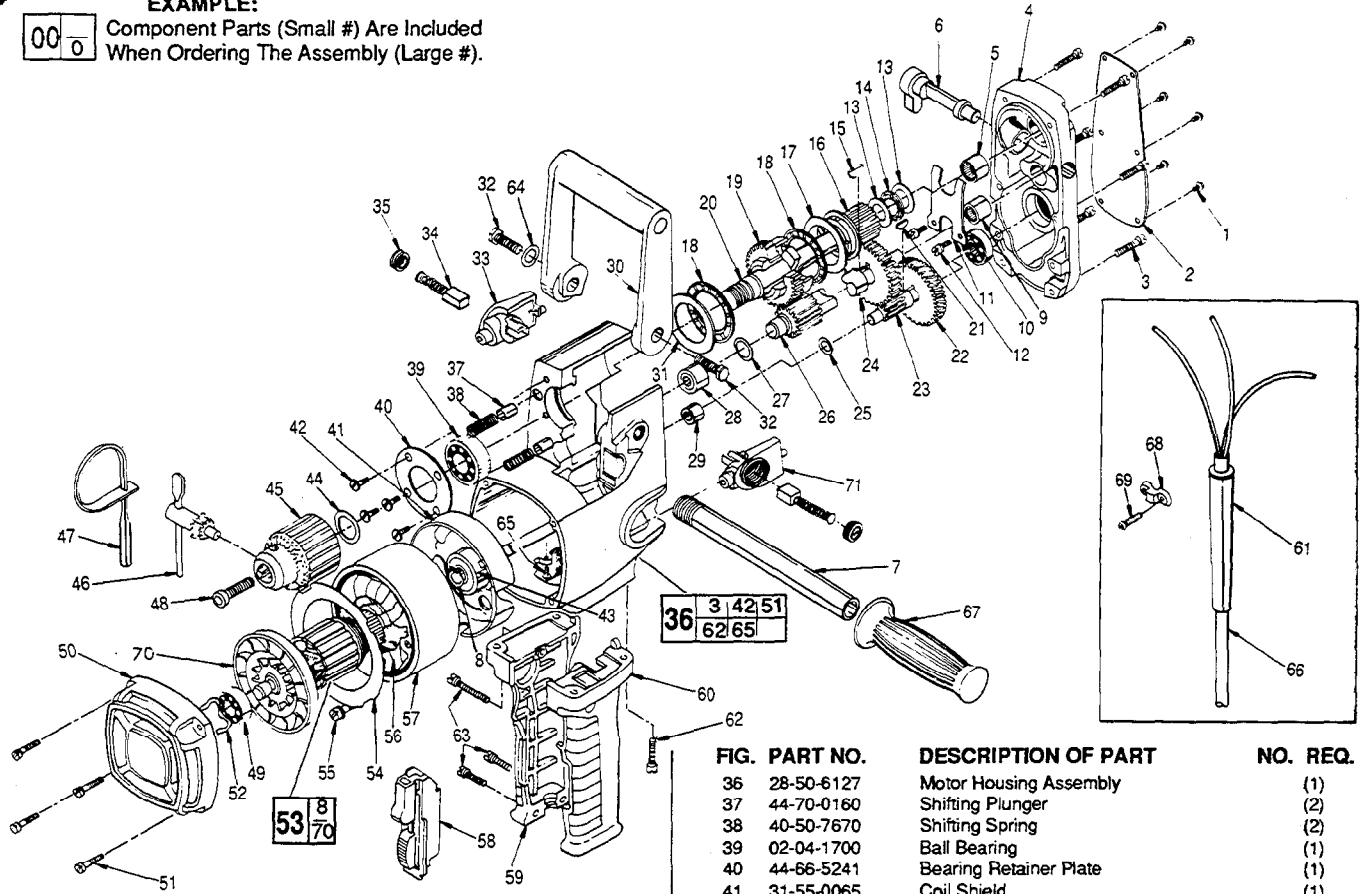


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	06-81-8400	4-40x1/4" Rd. Hd. Nameplate Screw	(6)
2	12-98-7050	Nameplate	(1)
3	06-81-6350	8-32x1" Fil. Hd. Gear Case Cover Screw	(6)
4	28-20-1122	Gear Case Cover	(1)
5	02-50-3170	Needle Bearing	(1)
6	31-11-0100	Shifting Cam	(1)
7	43-62-0122	Pipe Handle	(1)
8	34-60-0827	Retaining Ring	(1)
9	02-50-2750	Needle Bearing	(1)
10	02-04-0910	Ball Bearing	(1)
11	45-98-0100	Shifting Yoke	(1)
12	06-81-6050	8-32x5/16" Fil. Hd. Shifting Yoke Screw	(2)
13	45-88-7150	Thrust Washer	(2)
14	02-80-6020	Thrust Bearing	(1)
15	06-42-2000	No. 3 Woodruff Key	(1)
16	32-10-0132	Hi-Speed Clutch Gear Assembly	(1)
17	45-88-7140	Thrust Washer	(1)
18	02-80-1800	Thrust Bearing	(2)
19	32-10-0122	Lo-Speed Clutch Gear Assembly	(1)
20	38-50-4991	Spindle	(1)
21	06-42-1200	No. 212 Woodruff Key	(1)
22	32-42-1301	1st. Intermediate Gear	(1)
23	36-66-4071	1st. Intermediate Pinion	(1)
24	32-44-1311	2nd. Intermediate Gear	(1)
25	45-88-7100	Fiber Thrust Washer	(1)
26	36-66-4081	2nd Intermediate Pinion	(1)
27	45-88-7095	Fiber Thrust Washer	(1)
28	02-50-3180	Needle Bearing	(1)
29	02-50-2020	Needle Bearing	(1)
30	31-44-1100	Spade Handle	(1)
31	45-88-0520	Thrust Washer	(1)
32	06-75-0500	3/8-16 x 1" Hex Hd. Spade Handle Screw	(2)
33	22-22-1350	R. H. Brush Holder Assembly	(1)
34	22-18-0670	Carbon Brush Assembly	(2)
35	23-44-0220	Brush Retaining Cap	(2)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
36	28-50-6127	Motor Housing Assembly	(1)
37	44-70-0160	Shifting Plunger	(2)
38	40-50-7670	Shifting Spring	(2)
39	02-04-1700	Ball Bearing	(1)
40	44-66-5241	Bearing Retainer Plate	(1)
41	31-55-0065	Coil Shield	(1)
42	06-81-5502	8-32x3/8" Comb. Phil. Hd. Sem.	(4)
43	02-04-1050	Ball Bearing	(1)
44	45-88-0330	Chuck Spacer Washer	(1)
45	48-66-1381	Chuck	(1)
46	48-66-3280	Chuck Key	(1)
47	48-66-4040	Key Holder	(1)
48	06-75-3150	1/4-20x1" L.H. Soc. Hd. Cap Screw	(1)
49	02-04-0911	Ball Bearing	(1)
50	28-50-6235	Bearing Support Housing	(1)
51	06-81-6202	8-32x5/8" Fil. Hd. Brg. Support Hsg. Scr.	(4)
52	45-88-7110	Spring Washer	(1)
★ 53	16-50-0076	Armature Assembly	(1)
54	42-14-0150	Baffle	(1)
55	06-95-3290	8-16x1-7/8" Plastite Pan Hd. Screw	(2)
★ 56	18-50-0076	Field Assembly	(1)
57	23-16-0425	Field Insulator	(1)
58	23-66-1020	Switch	(1)
59	31-44-1440	R.H. Drill Handle	(1)
60	31-44-1445	L.H. Drill Handle	(1)
61	44-76-0150	Cord Protector	(1)
62	06-82-5358	12-24x3/4" Pan Hd. Taptite Screw	(4)
63	06-82-7326	8-16x1" Plastite Screw	(3)
64	45-88-0605	Flat Washer	(2)
65	06-81-8625	6-32x1/4" Ground Screw	(1)
66	22-64-0121	Cord Set	(1)
67	43-62-0246	Handle Grip	(1)
68	31-17-0156	Cord Clamp	(1)
69	06-82-7270	8-16x5/8" Pan Hd. Slit Torx Plastite Screw	(2)
70	22-84-0660	Fan	(1)
71	22-22-1355	L.H. Brush Holder Assembly	(1)
	10-98-5986	Caution Label	(1)

FIG. LUBRICATION
 24 4oz. Type "E" Grease, No. 49-08-4121.
 Prelube all needle bearings with Type "E" Grease, No. 49-08-4121.



SERVICE PARTS LIST

BULLETIN NO.
54-10-4011

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-10-4010	DATE April '91
TWO SPEED HOLE HAWG®		WIRING INSTRUCTION 58-01-0626	
CATALOG NO. 1675-1	STARTING SERIAL NO. 413-347251		

EXAMPLE:

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

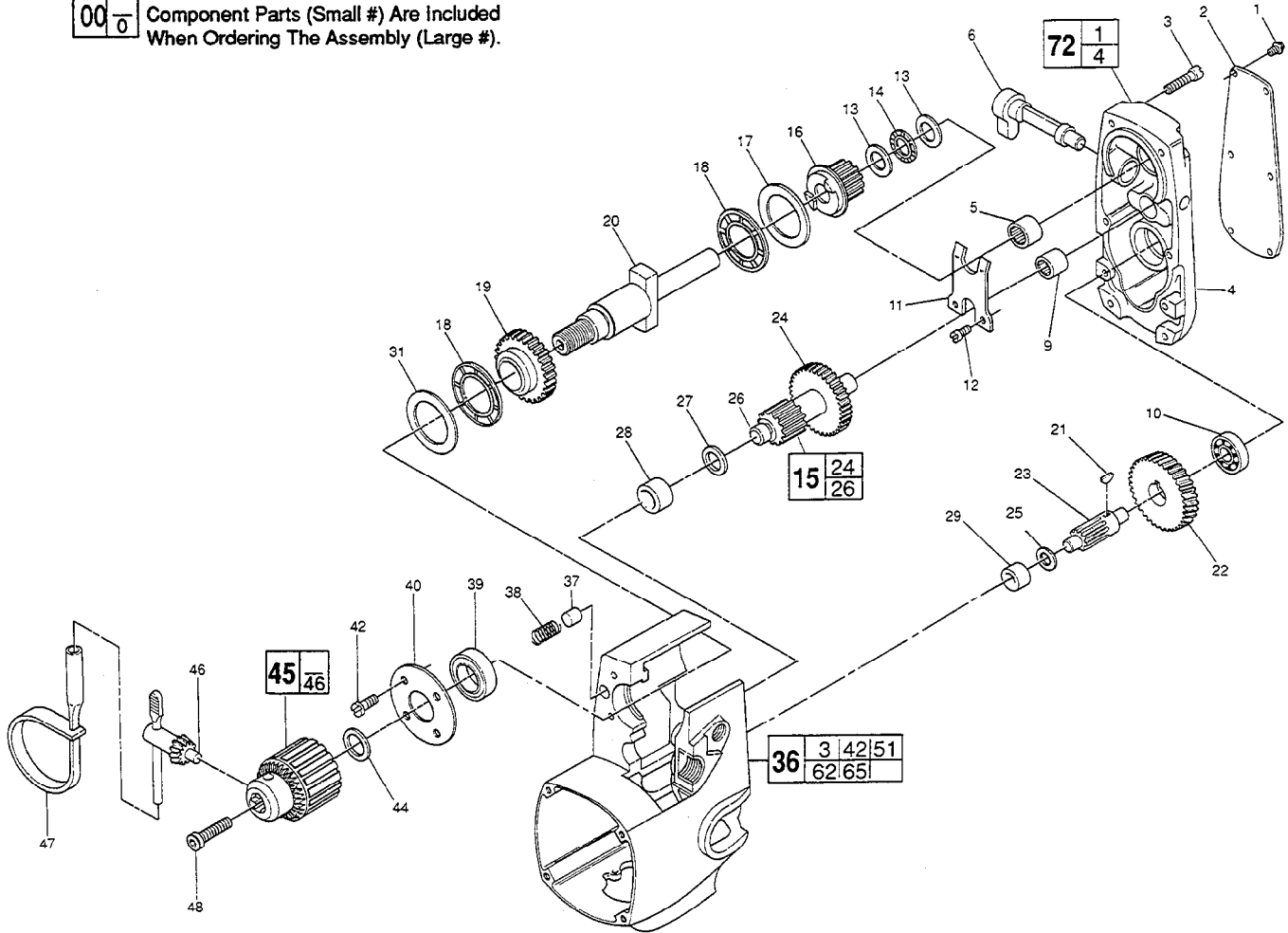


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★ 1	06-82-5266	4-40x1/4" Pan Hd. T-10 Screw	(6)
2	12-98-7050	Nameplate	(1)
★ 3	06-82-5362	8-32x1" Pan Hd. T-20 Screw	(6)
★ 4	28-20-1251	Gear Case Cover	(1)
5	02-50-3170	Needle Bearing	(1)
6	31-11-0100	Shifting Cam	(1)
9	02-50-2750	Needle Bearing	(1)
10	02-04-0910	Ball Bearing	(1)
11	45-98-0100	Shifting Yoke	(1)
★ 12	06-82-7252	8-32x3/8" Pan Hd. T-20 Screw	(2)
13	45-88-7150	Thrust Washer	(2)
14	02-80-6020	Thrust Bearing	(1)
★ 15	36-66-4520	2nd. Intermediate Pinion / Gear	(1)
16	32-10-0132	Hi-Speed Clutch Gear Assembly	(1)
17	45-88-7140	Thrust Washer	(1)
18	02-80-1800	Thrust Bearing	(2)
19	32-10-0122	Lo-Speed Clutch Gear Assembly	(1)
20	38-50-4991	Spindle	(1)
21	06-42-1200	No. 212 Woodruff Key	(1)
22	32-42-1301	1st. Intermediate Gear	(1)
23	36-66-4071	1st. Intermediate Pinion	(1)
★ 24	32-44-1315	2nd. Intermediate Gear	(1)
25	45-88-7100	Fiber Thrust Washer	(1)
★ 26	36-66-4515	2nd Intermediate Shaft Assembly	(1)
27	45-88-7095	Fiber Thrust Washer	(1)
28	02-50-3180	Needle Bearing	(1)
29	02-50-2020	Needle Bearing	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
31	45-88-0520	Thrust Washer	(1)
36	28-50-6127	Motor Housing Assembly	(1)
37	44-70-0160	Shifting Plunger	(2)
38	40-50-7670	Shifting Spring	(2)
39	02-04-1700	Ball Bearing	(1)
40	44-66-5241	Bearing Retainer Plate	(1)
★ 42	06-82-7252	8-32x3/8" Pan Hd. T-20 Screw	(4)
44	45-88-0330	Chuck Spacer Washer	(1)
45	48-66-1381	Chuck	(1)
46	48-66-3280	Chuck Key	(1)
47	48-66-4040	Key Holder	(1)
48	06-75-3150	1/4-20x1" L.H. Soc. Hd. Cap Screw	(1)
★ 72	28-20-1126	Gear Case Cover Assembly	(1)

**SEE REVERSE
SIDE**

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
31	45-88-0520	Thrust Washer	(1)
36	28-50-6127	Motor Housing Assembly	(1)
37	44-70-0160	Shifting Plunger	(2)
38	40-50-7670	Shifting Spring	(2)
39	02-04-1700	Ball Bearing	(1)
40	44-66-5241	Bearing Retainer Plate	(1)
★ 42	06-82-7252	8-32x3/8" Pan Hd. T-20 Screw	(4)
44	45-88-0330	Chuck Spacer Washer	(1)
45	48-66-1381	Chuck	(1)
46	48-66-3280	Chuck Key	(1)
47	48-66-4040	Key Holder	(1)
48	06-75-3150	1/4-20x1" L.H. Soc. Hd. Cap Screw	(1)
★ 72	28-20-1126	Gear Case Cover Assembly	(1)

FIG. 20,45 NOTES
Chuck mounted to spindle @ 90 ft./lbs. torque.

FIG. 4 LUBRICATION
3-1/2 oz. Type "E" Grease, No. 49-08-4121.
Prelube all needle bearings with Type "E" Grease, No. 49-08-4121.

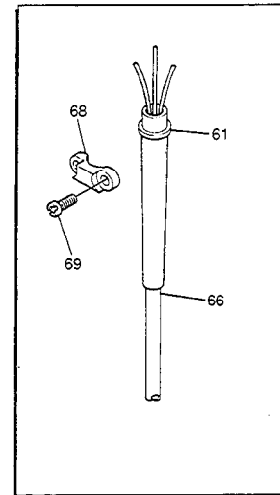
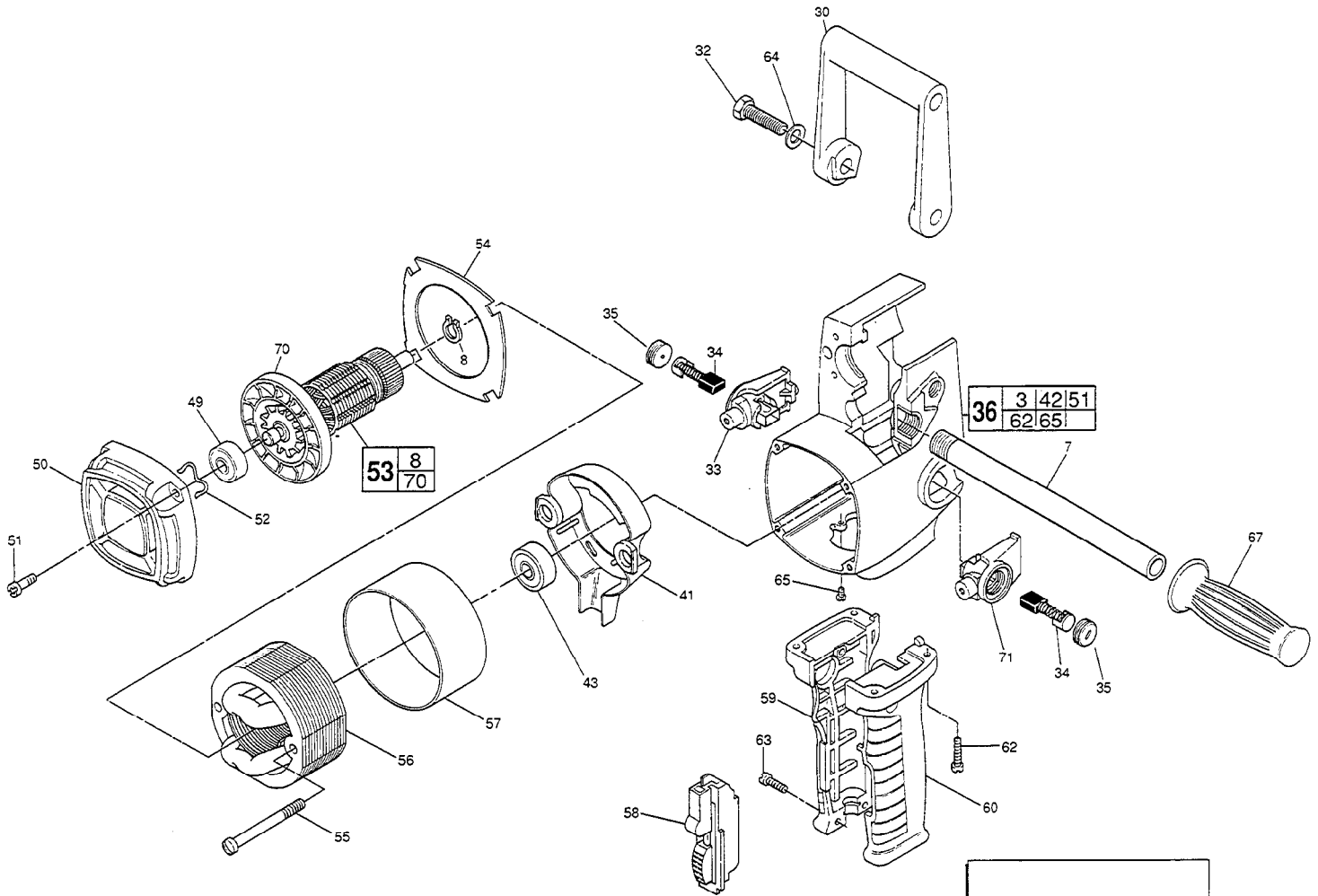


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	7	43-62-0122 Pipe Handle	(1)
	8	34-60-0827 Retaining Ring	(1)
	30	31-44-1100 Spade Handle	(1)
	32	06-75-0500 3/8-16 x 1" Hex Hd. Spade Handle Screw	(2)
	33	22-22-1350 R. H. Brush Holder Assembly	(1)
	34	22-18-0670 Carbon Brush Assembly	(2)
	35	23-44-0220 Brush Retaining Cap	(2)
	36	28-50-6127 Motor Housing Assembly	(1)
	41	31-55-0065 Coil Shield	(1)
	43	02-04-1050 Ball Bearing	(1)
	49	02-04-0911 Ball Bearing	(1)
	50	28-50-6235 Bearing Support Housing	(1)
★	51	06-82-5346 8-32x3/4" Pan Hd. T-20 Screw	(4)
	52	45-88-7110 Spring Washer	(1)
	53	16-50-0076 Armature Assembly	(1)
	54	42-14-0150 Baffle	(1)
	55	06-95-3290 8-16x1-7/8" Plastite Pan Hd. Screw	(2)
	56	18-50-0076 Field Assembly	(1)
	57	23-16-0425 Field Insulator	(1)
	58	23-66-1020 Switch	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	59	31-44-1440 R.H. Drill Handle	(1)
	60	31-44-1445 L.H. Drill Handle	(1)
	61	44-76-0150 Cord Protector	(1)
	62	06-82-5358 12-24x3/4" Pan Hd. Taptite T-27 Screw	(4)
	63	06-82-7326 8-16x1" Plastite T-20 Screw	(3)
	64	45-88-0605 Flat Washer	(2)
★	65	06-95-5150 6-32x1/4" Ground Screw	(1)
	66	22-64-0121 Cord Set	(1)
	67	43-62-0246 Handle Grip	(1)
	68	31-17-0156 Cord Clamp	(1)
	69	06-82-7270 8-16x5/8" Pan Hd. Slit. T-20 Plastite	(2)
	70	22-84-0660 Fan	(1)
	71	22-22-1355 L.H. Brush Holder Assembly	(1)
	10-98-5986	Caution Label	(1)



SERVICE PARTS LIST

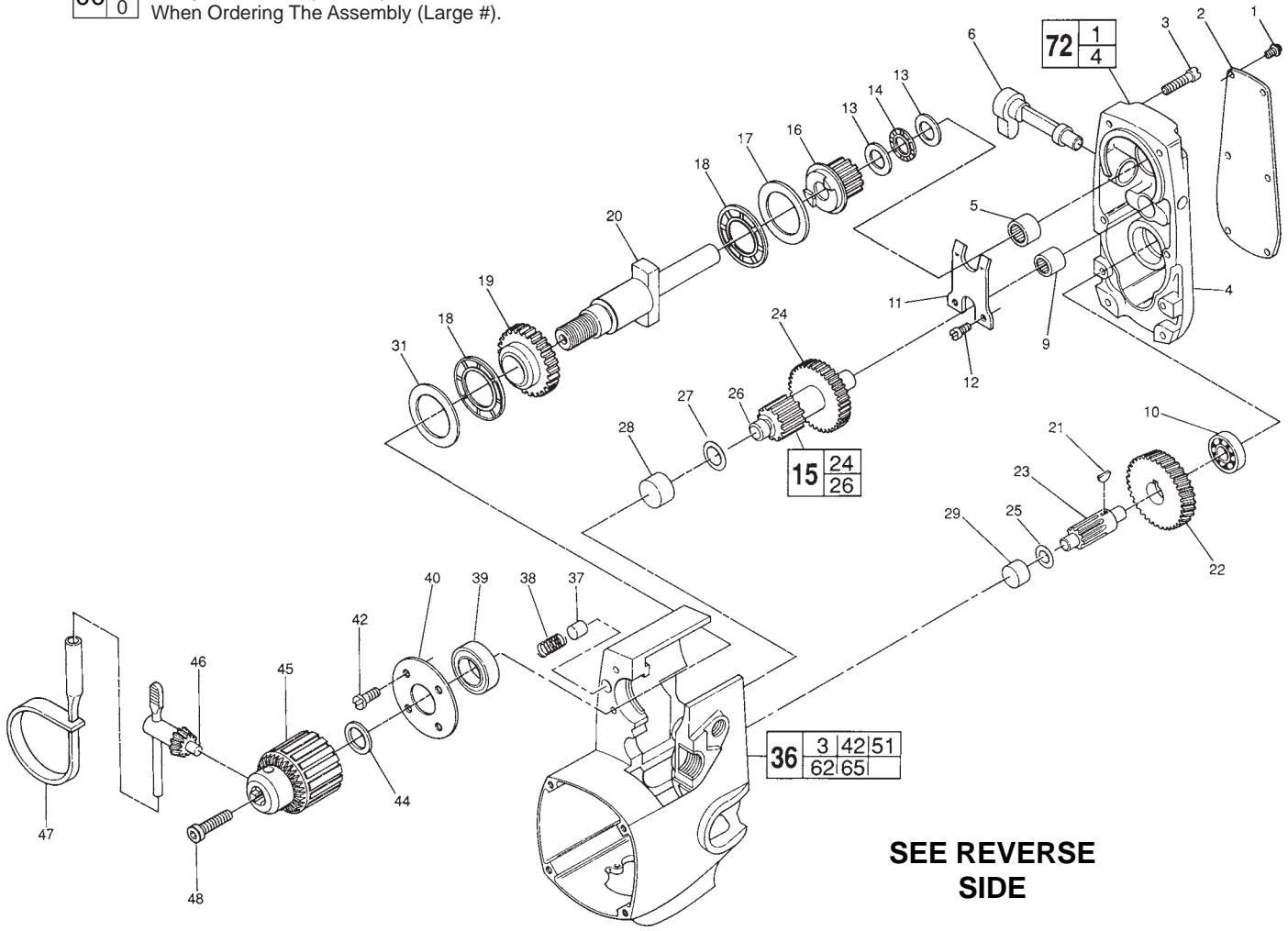
BULLETIN NO.
54-10-4012

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-10-4011	DATE Feb. 2008
TWO SPEED HOLE HAWG®			
CATALOG NO. 1675-1	STARTING SERIAL NUMBER 413A	WIRING INSTRUCTION 58-01-0626	

EXAMPLE:

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



SEE REVERSE SIDE

FIG.	PART NO.	DESCRIPTION OF PART	QTY.	FIG.	PART NO.	DESCRIPTION OF PART	QTY.
	1	4-40 x 1/4" Pan Hd. T-10 Screw	(6)	31	45-88-0520	Thrust Washer	(1)
*	2	Service Nameplate	(1)	36	28-50-6127	Motor Housing Assembly	(1)
	3	8-32 x 1" Pan Hd. T-20 Screw	(6)	37	44-70-0160	Shifting Plunger	(2)
	4	Gear Case Cover	(1)	38	40-50-7670	Shifting Spring	(2)
	5	Needle Bearing	(1)	39	02-04-1700	Ball Bearing	(1)
	6	31-11-0100 Shifting Cam	(1)	40	44-66-5241	Bearing Retainer Plate	(1)
	9	Needle Bearing	(1)	42	06-82-7252	8-32 x 3/8" Pan Hd. T-20 Screw	(4)
	10	02-04-0910 Ball Bearing	(1)	44	45-88-0330	Chuck Spacer Washer	(1)
	11	45-98-0100 Shifting Yoke	(1)	45	48-66-1381	Chuck	(1)
	12	06-82-7252 8-32 x 3/8" Pan Hd. T-20 Screw	(2)	46	48-66-3280	Chuck Key	(1)
	13	45-88-7150 Thrust Washer	(2)	47	48-66-4040	Key Holder	(1)
	14	02-80-6020 Thrust Bearing	(1)	48	06-75-3150	1/4-20 x 1" L.H. Soc. Hd. Cap Screw	(1)
	15	36-66-4520 2nd. Intermediate Pinion / Gear	(1)	72	28-20-1126	Gear Case Cover Assembly	(1)
	16	32-10-0132 Hi-Speed Clutch Gear Assembly	(1)				
	17	45-88-7140 Thrust Washer	(1)				
	18	02-80-1800 Thrust Bearing	(2)	FIG.		NOTES	
	19	32-10-0122 Lo-Speed Clutch Gear Assembly	(1)	20,45		Chuck mounted to spindle @ 90 ft./lbs. torque.	
	20	38-50-4991 Spindle	(1)	FIG.		LUBRICATION	
	21	06-42-1200 No. 212 Woodruff Key	(1)	4		3-1/2 oz. Type "E" Grease, No. 49-08-4122.	
	22	32-42-1301 1st. Intermediate Gear	(1)			Prelube all needle bearings with	
	23	36-66-4071 1st. Intermediate Pinion	(1)			Type "E" Grease, No. 49-08-4122.	
	24	32-44-1315 2nd. Intermediate Gear	(1)				
	25	45-88-7100 Fiber Thrust Washer	(1)				
	26	36-66-4515 2nd Intermediate Shaft Assembly	(1)				
	27	45-88-7095 Fiber Thrust Washer	(1)				
	28	02-50-3180 Needle Bearing	(1)				
*	29	02-50-2435 Needle Bearing	(1)				

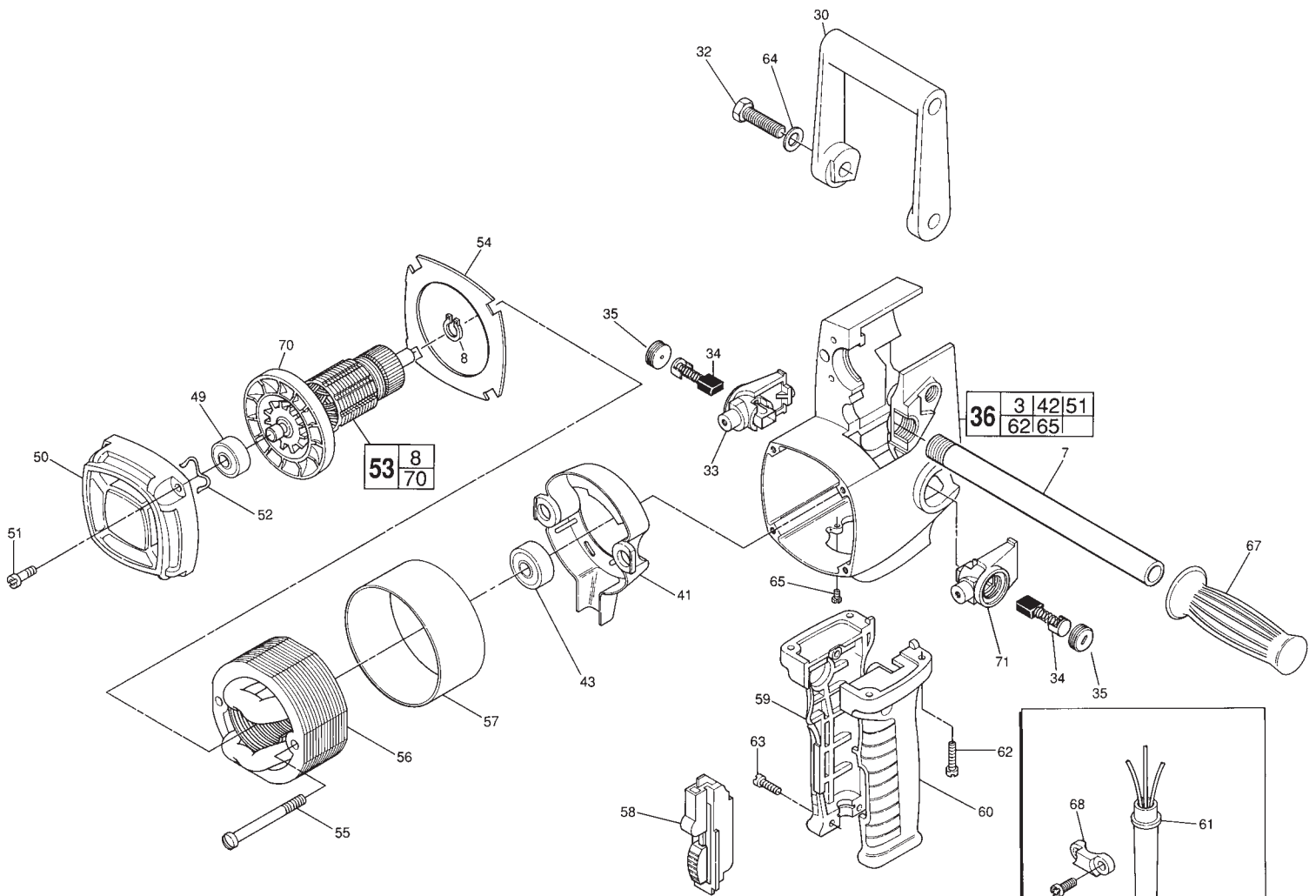
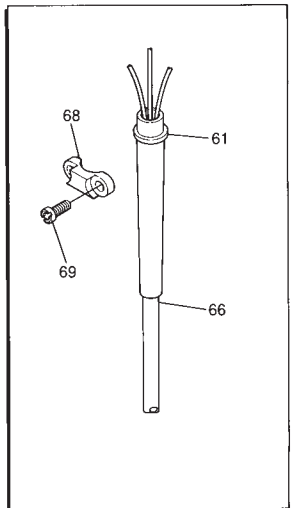


FIG.	PART NO.	DESCRIPTION OF PART	QTY.
	7	Pipe Handle	(1)
	8	Retaining Ring	(1)
	30	Spade Handle	(1)
	32	3/8-16 x 1" Hex Hd. Spade Handle Scrw	(2)
	33	R. H. Brush Holder Assembly	(1)
	34	Carbon Brush Assembly	(2)
	35	Brush Retaining Cap	(2)
	36	Motor Housing Assembly	(1)
	41	Coil Shield	(1)
	43	Ball Bearing	(1)
	49	Ball Bearing	(1)
	50	Bearing Support Housing	(1)
	51	8-32 x 3/4" Pan Hd. T-20 Screw	(4)
	52	Spring Washer	(1)
	53	Armature Assembly	(1)
	54	Baffle	(1)
*	55	8-16 x 1-7/8" Pan Hd Plastite T-20 Scrw	(2)
	56	Field Assembly	(1)
	57	Field Insulator	(1)
	58	Switch	(1)
	59	R.H. Drill Handle	(1)
	60	L.H. Drill Handle	(1)
	61	Cord Protector	(1)
	62	1/4-20 x 3/4" Pan Hd. Taptite T-27 Scrw	(4)
	63	8-16 x 1" Pan Hd. Plastite T-20 Screw	(3)
	64	Flat Washer	(2)
	65	6-32 x 1/4" Ground Screw	(1)
	66	Cord Set	(1)
	67	Handle Grip	(1)
	68	Cord Clamp	(1)
	69	8-16 x 5/8" Pan Hd. Slit. T-20 Plastite	(2)
	70	Fan	(1)
	71	L.H. Brush Holder Assembly	(1)
	10-98-5986	Caution Label	(1)





SERVICE PARTS LIST

**BULLETIN NO.
54-10-4013**

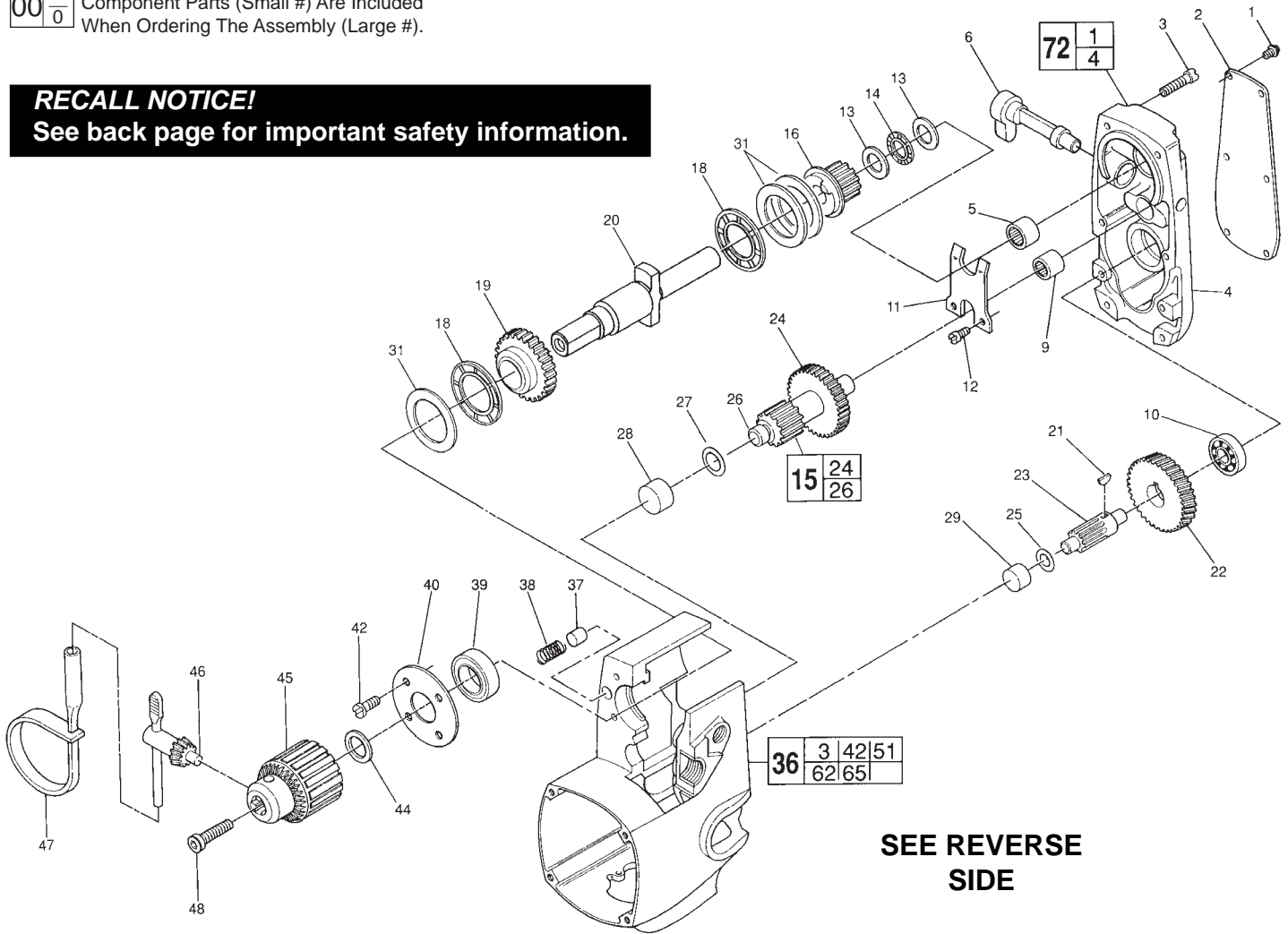
SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-10-4012	DATE May 2012
TWO SPEED HOLE HAWG®			
CATALOG NO. 1675-1	STARTING SERIAL NO. 413B	WIRING INSTRUCTION 58-01-0626	

EXAMPLE:

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

RECALL NOTICE!
 See back page for important safety information.



**SEE REVERSE
SIDE**

FIG.	PART NO.	DESCRIPTION OF PART	QTY.	FIG.	PART NO.	DESCRIPTION OF PART	QTY.
1	06-82-5266	4-40 x 1/4" Pan Hd. T-10 Screw	(6)	★ 31	45-88-0520	Thrust Washer	(3)
2	12-98-7300	Service Nameplate	(1)	36	28-50-6129	Motor Housing Assembly	(1)
3	06-82-5362	8-32 x 1" Pan Hd. T-20 Screw	(6)	37	44-70-0160	Shifting Plunger	(2)
4	28-20-1251	Gear Case Cover	(1)	38	40-50-7670	Shifting Spring	(2)
5	02-50-3170	Needle Bearing	(1)	39	02-04-1700	Ball Bearing	(1)
6	31-11-0100	Shifting Cam	(1)	40	44-66-5241	Bearing Retainer Plate	(1)
9	02-50-2750	Needle Bearing	(1)	42	06-82-7252	8-32 x 3/8" Pan Hd. T-20 Screw	(4)
10	02-04-0910	Ball Bearing	(1)	44	45-88-0330	Chuck Spacer Washer	(1)
11	45-98-0100	Shifting Yoke	(1)	45	48-66-1381	Chuck	(1)
12	06-82-7252	8-32 x 3/8" Pan Hd. T-20 Screw	(2)	46	48-66-3280	Chuck Key	(1)
13	45-88-7150	Thrust Washer	(2)	47	48-66-4040	Key Holder	(1)
14	02-80-6020	Thrust Bearing	(1)	48	06-75-3150	1/4-20 x 1" L.H. Soc. Hd. Cap Screw	(1)
★ 15	36-66-4530	2nd. Intermediate Pinion and Gear	(1)	72	28-20-1126	Gear Case Cover Assembly	(1)
16	32-10-0132	Hi-Speed Clutch Gear Assembly	(1)				
18	02-80-1800	Thrust Bearing	(2)				
19	32-10-0122	Lo-Speed Clutch Gear Assembly	(1)				
20	38-50-4991	Spindle	(1)				
21	06-42-1200	No. 212 Woodruff Key	(1)				
22	32-42-1301	1st. Intermediate Gear	(1)				
23	36-66-4071	1st. Intermediate Pinion	(1)				
25	45-88-7100	Fiber Thrust Washer	(1)				
27	45-88-7095	Fiber Thrust Washer	(1)				
28	02-50-3180	Needle Bearing	(1)				
29	02-50-2435	Needle Bearing	(1)				

FIG. 20,45
NOTES
 Chuck mounted to spindle @ 90 ft.lbs. torque.

FIG. 4
LUBRICATION
 3-1/2 oz. Type "E" Grease, No. 49-08-4122.
 Pre-lube all needle bearings with Type "E" Grease, No. 49-08-4122.

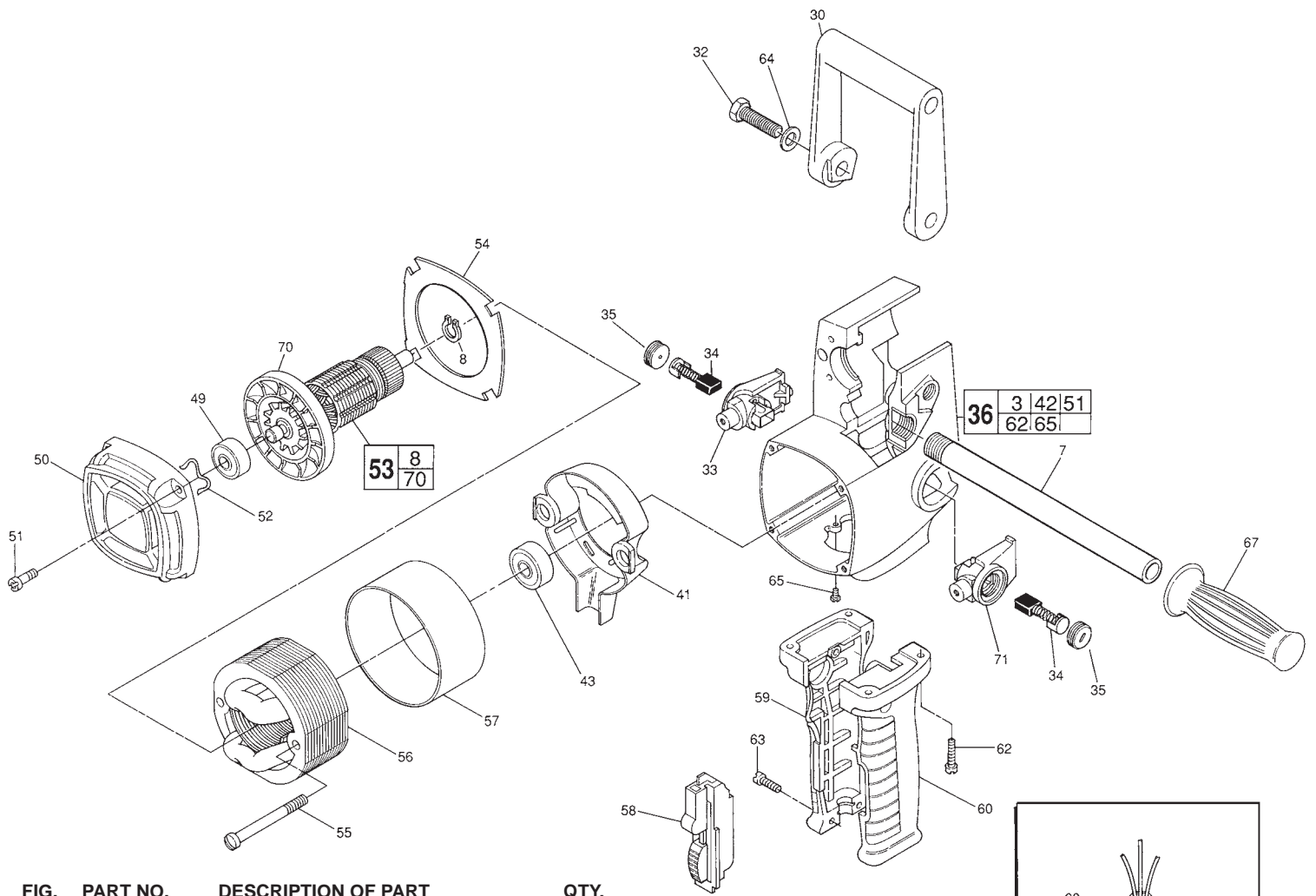
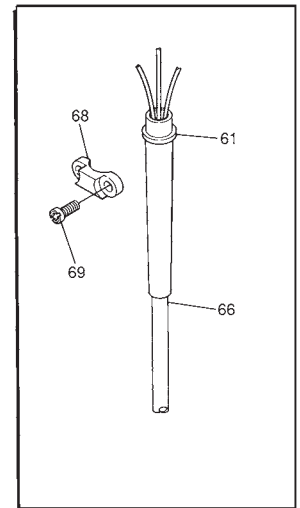


FIG.	PART NO.	DESCRIPTION OF PART	QTY.
	7	43-62-0122 Pipe Handle	(1)
	8	34-60-0827 Retaining Ring	(1)
	30	31-44-1100 Spade Handle	(1)
	32	06-75-0500 3/8-16 x 1" Hex Hd. Spade Handle Screw	(2)
	33	22-22-1350 R. H. Brush Holder Assembly	(1)
	34	22-18-0670 Carbon Brush Assembly	(2)
	35	23-44-0220 Brush Retaining Cap	(2)
	36	28-50-6129 Motor Housing Assembly	(1)
	41	31-55-0065 Coil Shield	(1)
	43	02-04-1050 Ball Bearing	(1)
	49	02-04-0913 Ball Bearing	(1)
	50	28-50-6235 Bearing Support Housing	(1)
	51	06-82-5346 8-32 x 3/4" Pan Hd. T-20 Screw	(4)
	52	45-88-7110 Spring Washer	(1)
	53	16-50-1076 Armature Assembly	(1)
	54	42-14-0150 Baffle	(1)
	55	06-82-7412 8-16 x 1-7/8" Pan Hd. Plastite T-20 Screw	(2)
	56	18-50-0076 Field Assembly	(1)
	57	23-16-0425 Field Insulator	(1)
	58	23-66-1020 Switch	(1)
	59	31-44-1441 R.H. Drill Handle	(1)
	60	31-44-1446 L.H. Drill Handle	(1)
	61	44-76-0150 Cord Protector	(1)
	62	06-82-5382 1/4-20 x 3/4" Pan Hd. Taptite T-27 Screw	(4)
	63	06-82-7326 8-16 x 1" Pan Hd. Plastite T-20 Screw	(3)
	64	45-88-0605 Flat Washer	(2)
	65	06-95-5150 6-32 x 1/4" Ground Screw	(1)
	66	22-64-0121 Cord Set	(1)
	67	43-62-0246 Handle Grip	(1)
	68	31-17-0155 Cord Clamp	(1)
	69	06-82-7270 8-16 x 5/8" Pan Hd. Slit. T-20 Plastite	(2)
	70	22-84-0660 Fan	(1)
	71	22-22-1355 L.H. Brush Holder Assembly	(1)
	10-98-5986	Caution Label	(1)



RECALL NOTICE!

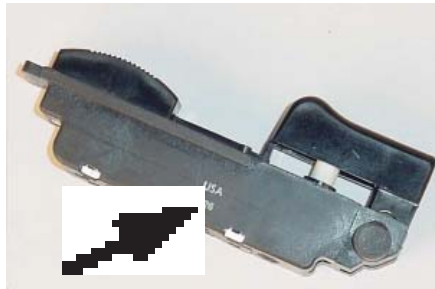
Milwaukee is providing a **no-charge** warranty service to owners of **1610-1, 1630-1 1/2" Compact Hole-Shooter Drills and 1670-1, 1675-1 1/2" Hole-Hawg® Drills**. We are taking this action because under certain circumstances the switch of the drill may stick in the "on" position, which could lessen control of the product, posing a risk of injury to the operator.

1610-1, 1630-1 1/2" Compact Hole-Shooter Drills and 1670-1, 1675-1 1/2" Hole-Hawg® Drills within the serial number ranges shown below and sold between May 30,2000 and February 27, 2001 are affected.

Nameplate Catalog Number	Serial Number Range
1610-1	7 0 0 B 4 <u>00200013</u> thru 700B4 <u>00480097</u>
1630-1	7 1 8 B 4 <u>00230057</u> thru 718B4 <u>00480118</u>
1670-1	472B4 <u>00200061</u> thru 472B4 <u>00440188</u>
1675-1	413B4 <u>00190567</u> thru 413B4 <u>00522000</u>

Drills listed should **be inspected** for the presence of a **23-66-1020** Switch with a date code within 0021 through 0044. If the unit contains a subject dated coded 23-66-1020 switch, please return drill to the nearest Milwaukee **factory** Service Center or Authorized Service station for no-charge warranty replacement of the switch.

Affected switches carry a manufacture's four [4] digit **date code of 0021 thru 0044** imprinted on its body.



If nameplate has an 'X' stamped into the tool's nameplate, next to the catalog number, the tool has been repaired and the defective switch has already been replaced.



SERVICE PARTS LIST

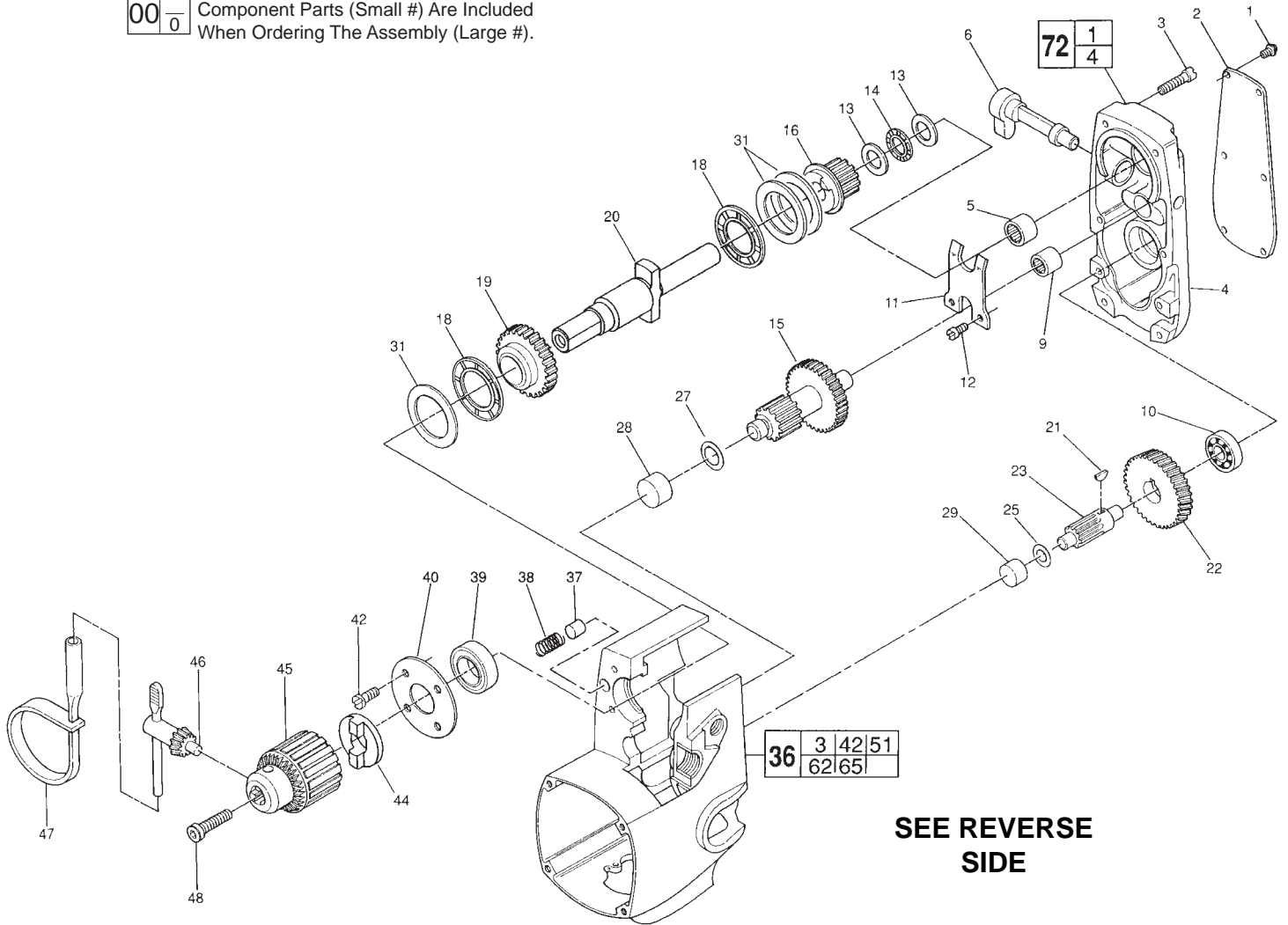
BULLETIN NO.
54-10-4014

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-10-4013	DATE May 2008
TWO SPEED HOLE HAWG®			
CATALOG NO. 1675-1	STARTING SERIAL NO.	413C	
		WIRING INSTRUCTION 58-01-0626	

EXAMPLE:

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



**SEE REVERSE
SIDE**

FIG.	PART NO.	DESCRIPTION OF PART	QTY.	FIG.	PART NO.	DESCRIPTION OF PART	QTY.
1	06-82-5266	4-40 x 1/4" Pan Hd. T-10 Screw	(6)	31	45-88-0520	Thrust Washer	(3)
2	12-98-7300	Service Nameplate	(1)	36	28-50-6129	Motor Housing Assembly	(1)
3	06-82-5362	8-32 x 1" Pan Hd. T-20 Screw	(6)	37	44-70-0160	Shifting Plunger	(2)
4	28-20-1251	Gear Case Cover	(1)	38	40-50-7670	Shifting Spring	(2)
5	02-50-3170	Needle Bearing	(1)	39	02-04-1700	Ball Bearing	(1)
6	31-11-0100	Shifting Cam	(1)	40	44-66-5241	Bearing Retainer Plate	(1)
9	02-50-2750	Needle Bearing	(1)	42	06-82-7252	8-32 x 3/8" Pan Hd. T-20 Screw	(4)
10	02-04-0910	Ball Bearing	(1)	★ 44	43-78-0670	Drive Hub	(1)
11	45-98-0100	Shifting Yoke	(1)	★ 45	48-66-1481	Chuck	(1)
12	06-82-7252	8-32 x 3/8" Pan Hd. T-20 Screw	(2)	46	48-66-3280	Chuck Key	(1)
13	45-88-7150	Thrust Washer	(2)	47	48-66-4040	Key Holder	(1)
14	02-80-6020	Thrust Bearing	(1)	★ 48	06-75-3155	1/4-20 x 1" L.H. Soc. Hd. Cap Screw	(1)
15	36-66-4530	2nd. Intermediate Pinion and Gear	(1)	72	28-20-1126	Gear Case Cover Assembly	(1)
16	32-10-0132	Hi-Speed Clutch Gear Assembly	(1)				
18	02-80-1800	Thrust Bearing	(2)				
19	32-10-0122	Lo-Speed Clutch Gear Assembly	(1)				
★ 20	38-50-5000	Spindle	(1)				
21	06-42-1200	No. 212 Woodruff Key	(1)				
22	32-42-1301	1st. Intermediate Gear	(1)				
23	36-66-4071	1st. Intermediate Pinion	(1)				
25	45-88-7100	Fiber Thrust Washer	(1)				
27	45-88-7095	Fiber Thrust Washer	(1)				
28	02-50-3180	Needle Bearing	(1)				
29	02-50-2435	Needle Bearing	(1)				
				FIG.		NOTES	
				48		Torque to 150-155 in./lbs.	
				FIG.		LUBRICATION	
				4		3-1/2 oz. Type "E" Grease, No. 49-08-4122.	
						Pre-lube all needle bearings with	
						Type "E" Grease, No. 49-08-4122.	

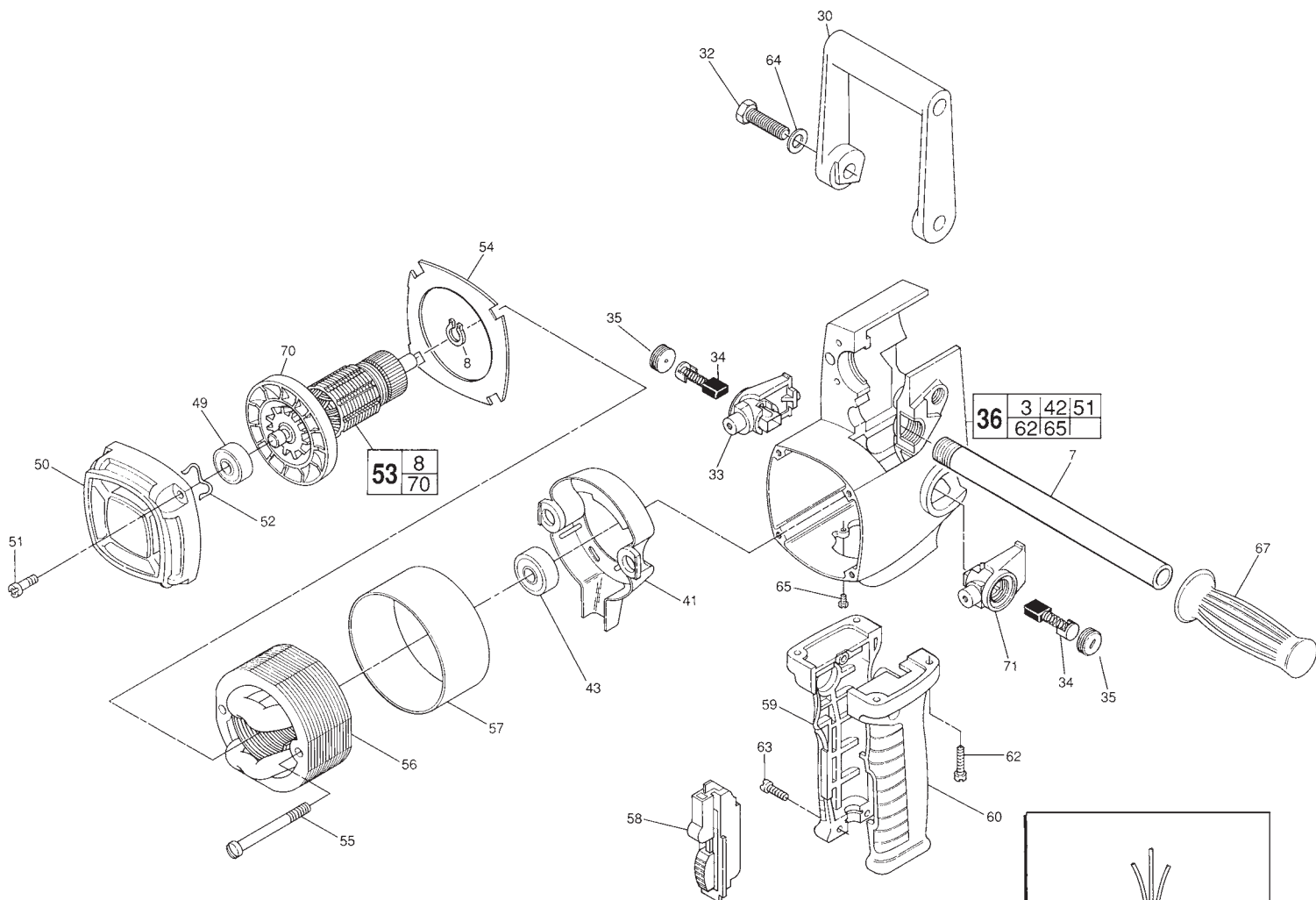
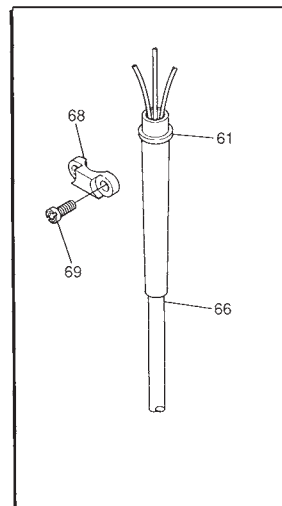


FIG.	PART NO.	DESCRIPTION OF PART	QTY.
7	43-62-0122	Pipe Handle	(1)
8	34-60-0827	Retaining Ring	(1)
30	31-44-1100	Spade Handle	(1)
32	06-75-0500	3/8-16 x 1" Hex Hd. Spade Handle Screw	(2)
33	22-22-1350	R. H. Brush Holder Assembly	(1)
34	22-18-0670	Carbon Brush Assembly	(2)
35	23-44-0220	Brush Retaining Cap	(2)
36	28-50-6129	Motor Housing Assembly	(1)
41	31-55-0065	Coil Shield	(1)
43	02-04-1050	Ball Bearing	(1)
49	02-04-0913	Ball Bearing	(1)
50	28-50-6235	Bearing Support Housing	(1)
51	06-82-5346	8-32 x 3/4" Pan Hd. T-20 Screw	(4)
52	45-88-7110	Spring Washer	(1)
53	16-50-1076	Armature Assembly	(1)
54	42-14-0150	Baffle	(1)
55	06-82-7412	8-16 x 1-7/8" Pan Hd. Plast. T-20 Screw	(2)
56	18-50-0076	Field Assembly	(1)
57	23-16-0425	Field Insulator	(1)
58	23-66-1020	Switch	(1)
59	31-44-1441	R.H. Drill Handle	(1)
60	31-44-1446	L.H. Drill Handle	(1)
61	44-76-0150	Cord Protector	(1)
62	06-82-5382	1/4-20 x 3/4" Pan Hd. Taptite T-27 Screw	(4)
63	06-82-7326	8-16 x 1" Pan Hd. Plastite T-20 Screw	(3)
64	45-88-0605	Flat Washer	(2)
65	06-95-5150	6-32 x 1/4" Ground Screw	(1)
66	22-64-0121	Cord Set	(1)
67	43-62-0246	Handle Grip	(1)
68	31-17-0155	Cord Clamp	(1)
69	06-82-7270	8-16 x 5/8" Pan Hd. Slit. T-20 Plastite	(2)
70	22-84-0660	Fan	(1)
71	22-22-1355	L.H. Brush Holder Assembly	(1)
	10-98-5986	Caution Label	(1)





SERVICE PARTS LIST

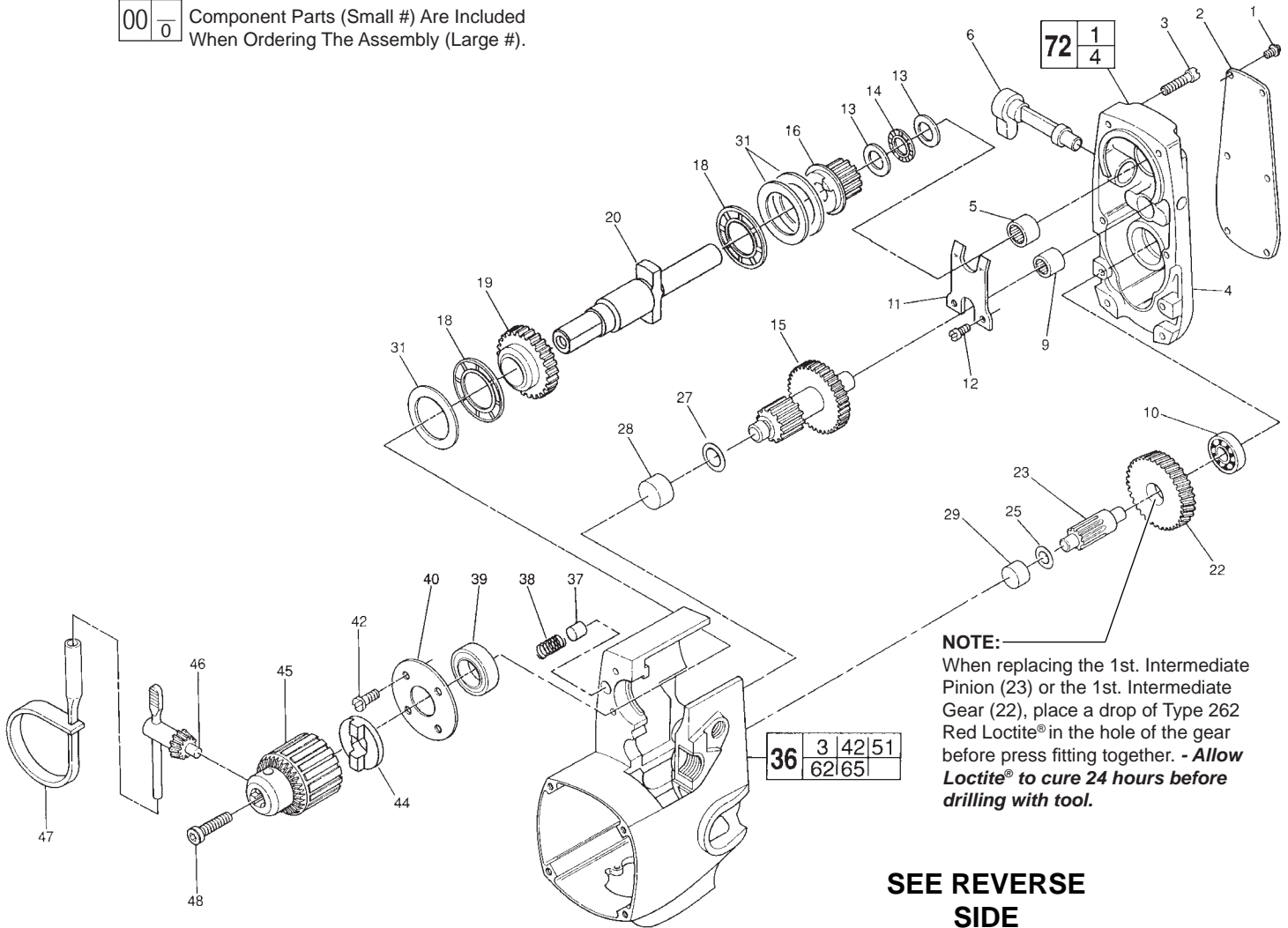
BULLETIN NO.
54-10-4015

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
TWO SPEED HOLE HAWG®		54-10-4014	Feb. 2008
		WIRING INSTRUCTION 58-01-0626	
CATALOG NO. 1675-1	STARTING SERIAL NO. 413D		

EXAMPLE:

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



NOTE:
 When replacing the 1st. Intermediate Pinion (23) or the 1st. Intermediate Gear (22), place a drop of Type 262 Red Loctite® in the hole of the gear before press fitting together. - **Allow Loctite® to cure 24 hours before drilling with tool.**

SEE REVERSE SIDE

FIG.	PART NO.	DESCRIPTION OF PART	QTY.	FIG.	PART NO.	DESCRIPTION OF PART	QTY.
1	06-82-5266	4-40 x 1/4" Pan Hd. T-10 Screw	(6)	36	28-50-6129	Motor Housing Assembly	(1)
2	12-98-7300	Service Nameplate	(1)	37	44-70-0160	Shifting Plunger	(2)
3	06-82-5362	8-32 x 1" Pan Hd. T-20 Screw	(6)	38	40-50-7670	Shifting Spring	(2)
4	28-20-1251	Gear Case Cover	(1)	39	02-04-1700	Ball Bearing	(1)
5	02-50-3170	Needle Bearing	(1)	40	44-66-5241	Bearing Retainer Plate	(1)
6	31-11-0100	Shifting Cam	(1)	42	06-82-7252	8-32 x 3/8" Pan Hd. T-20 Screw	(4)
9	02-50-2750	Needle Bearing	(1)	44	43-78-0670	Drive Hub	(1)
10	02-04-0910	Ball Bearing	(1)	45	48-66-1481	Chuck	(1)
11	45-98-0100	Shifting Yoke	(1)	46	48-66-3280	Chuck Key	(1)
12	06-82-7252	8-32 x 3/8" Pan Hd. T-20 Screw	(2)	47	48-66-4040	Key Holder	(1)
13	45-88-7150	Thrust Washer	(2)	48	06-75-3155	1/4-20 x 1" L.H. Soc. Hd. Cap Screw	(1)
14	02-80-6020	Thrust Bearing	(1)	72	28-20-1126	Gear Case Cover Assembly	(1)
15	36-66-4530	2nd. Intermediate Pinion and Gear	(1)				
16	32-10-0132	Hi-Speed Clutch Gear Assembly	(1)	FIG.	NOTES		
18	02-80-1800	Thrust Bearing	(2)	48	Torque to 150-155 in./lbs.		
19	32-10-0122	Lo-Speed Clutch Gear Assembly	(1)	FIG.	LUBRICATION		
20	38-50-5000	Spindle	(1)	4	3-1/2 oz. Type "E" Grease, No. 49-08-4122.		
★ 22	32-42-1302	1st. Intermediate Gear	(1)		Prelube all needle bearings with		
★ 23	36-66-4072	1st. Intermediate Pinion	(1)		Type "E" Grease, No. 49-08-4122.		
25	45-88-7100	Fiber Thrust Washer	(1)				
27	45-88-7095	Fiber Thrust Washer	(1)				
28	02-50-3180	Needle Bearing	(1)				
29	02-50-2435	Needle Bearing	(1)				
31	45-88-0520	Thrust Washer	(3)				

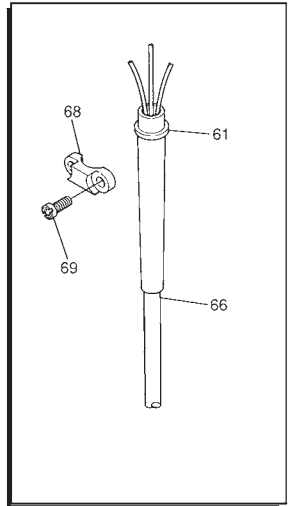
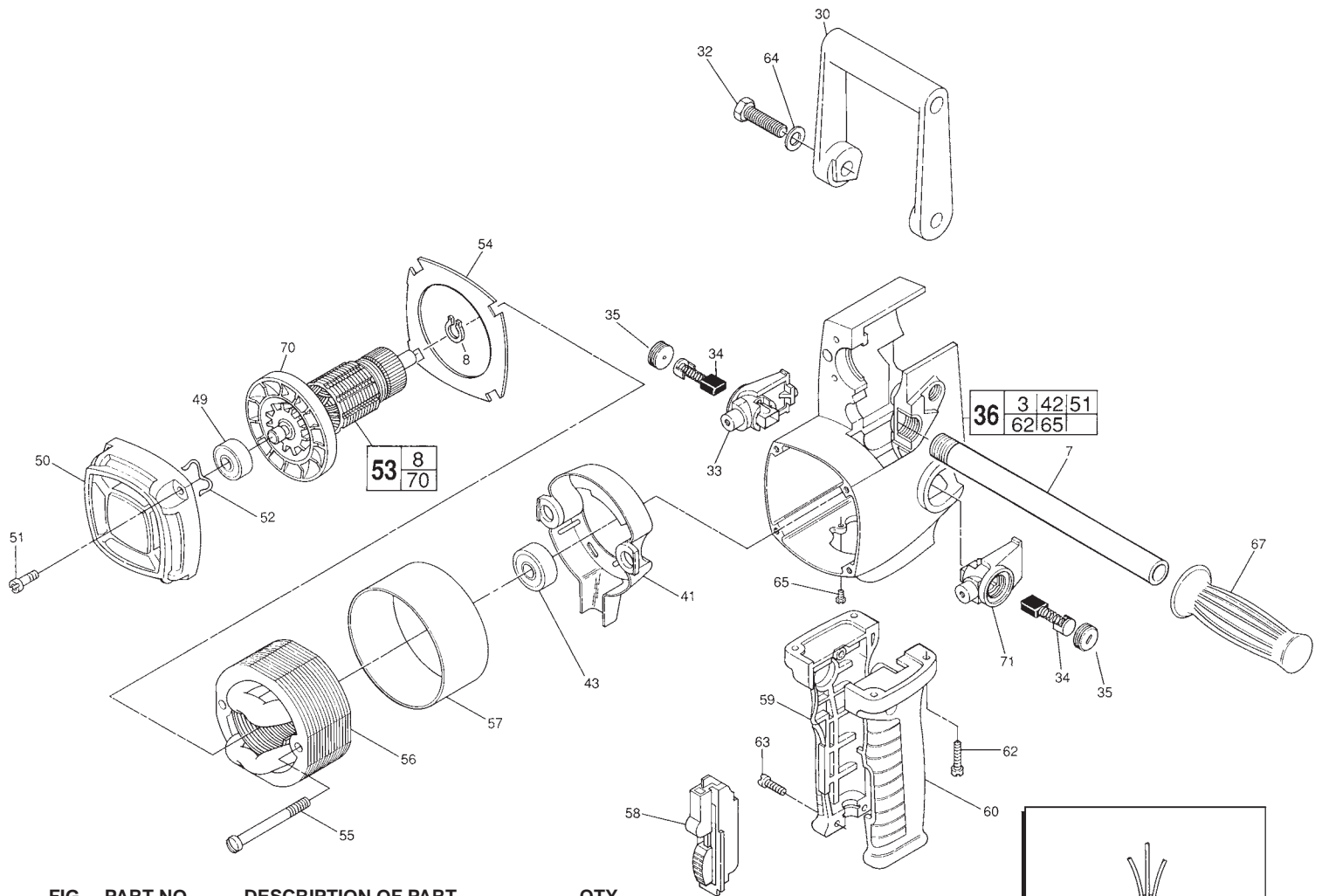


FIG.	PART NO.	DESCRIPTION OF PART	QTY.
	7	Pipe Handle	(1)
	8	Retaining Ring	(1)
	30	Spade Handle	(1)
	32	3/8-16 x 1" Hex Hd. Spade Handle Scrw	(2)
	33	R. H. Brush Holder Assembly	(1)
	34	Carbon Brush Assembly	(2)
	35	Brush Retaining Cap	(2)
	36	Motor Housing Assembly	(1)
	41	Coil Shield	(1)
	43	Ball Bearing	(1)
	49	Ball Bearing	(1)
	50	Bearing Support Housing	(1)
	51	8-32 x 3/4" Pan Hd. T-20 Screw	(4)
	52	Spring Washer	(1)
	53	Armature Assembly	(1)
	54	Baffle	(1)
	55	8-16 x 1-7/8" Pan Hd. Plast. T-20 Screw	(2)
	56	Field Assembly	(1)
	57	Field Insulator	(1)
	58	Switch	(1)
	59	R.H. Drill Handle	(1)
	60	L.H. Drill Handle	(1)
	61	Cord Protector	(1)
	62	1/4-20 x 3/4" Pan Hd. Taptite T-27 Screw	(4)
	63	8-16 x 1" Pan Hd. Plastite T-20 Screw	(3)
	64	Flat Washer	(2)
	65	6-32 x 1/4" Ground Screw	(1)
	66	Cord Set	(1)
	67	Handle Grip	(1)
	68	Cord Clamp	(1)
	69	8-16 x 5/8" Pan Hd. Slit. T-20 Plastite	(2)
	70	Fan	(1)
	71	L.H. Brush Holder Assembly	(1)
	10-98-5986	Caution Label	(1)



SERVICE PARTS LIST

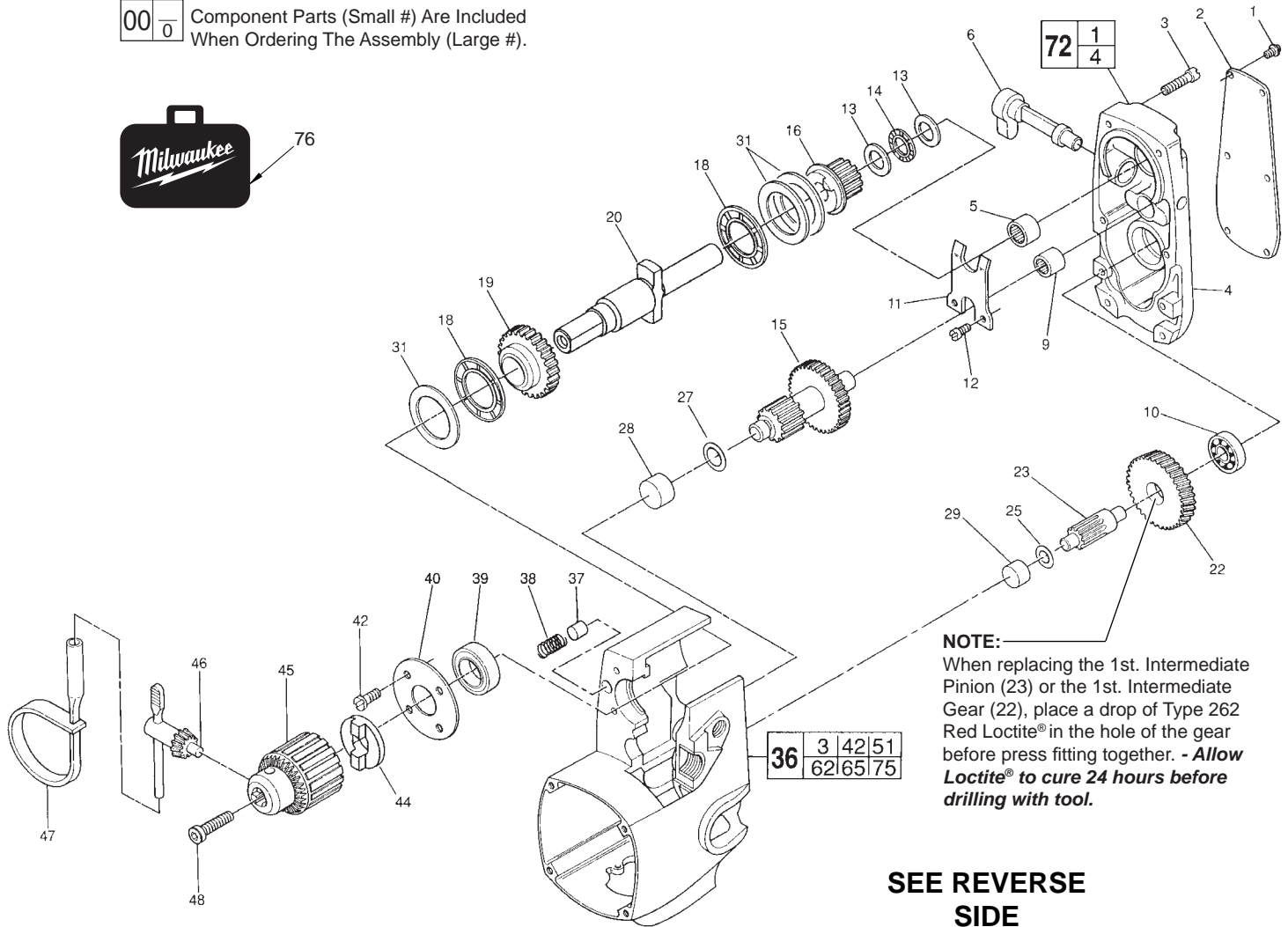
BULLETIN NO.
54-10-4016

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
TWO SPEED HOLE HAWG®		54-10-4015	Nov. 2013
		WIRING INSTRUCTION 58-01-0626	
CATALOG NO. 1675-1	STARTING SERIAL NO. 413E		

EXAMPLE:

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



NOTE:
 When replacing the 1st. Intermediate Pinion (23) or the 1st. Intermediate Gear (22), place a drop of Type 262 Red Loctite® in the hole of the gear before press fitting together. - **Allow Loctite® to cure 24 hours before drilling with tool.**

SEE REVERSE SIDE

FIG.	PART NO.	DESCRIPTION OF PART	QTY.
1	06-82-5266	4-40 x 1/4" Pan Hd. T-10 Screw	(6)
2	12-98-7300	Service Nameplate	(1)
3	06-82-5362	8-32 x 1" Pan Hd. T-20 Screw	(6)
4	28-20-1251	Gear Case Cover	(1)
5	02-50-3170	Needle Bearing	(1)
6	31-11-0100	Shifting Cam	(1)
9	02-50-2750	Needle Bearing	(1)
10	02-04-0910	Ball Bearing	(1)
11	45-98-0100	Shifting Yoke	(1)
12	06-82-7252	8-32 x 3/8" Pan Hd. T-20 Screw	(2)
13	45-88-7150	Thrust Washer	(2)
14	02-80-6020	Thrust Bearing	(1)
15	36-66-4530	2nd. Intermediate Pinion and Gear	(1)
16	32-10-0132	Hi-Speed Clutch Gear Assembly	(1)
18	02-80-1800	Thrust Bearing	(2)
19	32-10-0122	Lo-Speed Clutch Gear Assembly	(1)
20	38-50-5000	Spindle	(1)
22	32-42-1302	1st. Intermediate Gear	(1)
23	36-66-4072	1st. Intermediate Pinion	(1)
25	45-88-7100	Fiber Thrust Washer	(1)
27	45-88-7095	Fiber Thrust Washer	(1)
28	02-50-3180	Needle Bearing	(1)
29	02-50-2435	Needle Bearing	(1)
31	45-88-0520	Thrust Washer	(3)

FIG.	PART NO.	DESCRIPTION OF PART	QTY.
36	28-50-6129	Motor Housing Assembly	(1)
37	44-70-0160	Shifting Plunger	(2)
38	40-50-7670	Shifting Spring	(2)
39	02-04-1700	Ball Bearing	(1)
40	44-66-5241	Bearing Retainer Plate	(1)
★ 42	06-82-5316	8-32 x 1/2" Pan Hd. Tapt. T-20 Screw	(4)
44	43-78-0670	Drive Hub	(1)
45	48-66-1481	Chuck	(1)
46	48-66-3280	Chuck Key	(1)
47	48-66-4040	Key Holder	(1)
48	06-75-3155	1/4-20 x 1" L.H. Soc. Hd. Cap Screw	(1)
72	28-20-1126	Gear Case Cover Assembly	(1)
★ 76	42-55-0121	Carrying Case, Optional	(1)

FIG. NOTES
 48 Torque to 150-155 in./lbs.

FIG. LUBRICATION
 4 3-1/2 oz. Type "E" Grease, No. 49-08-4122.
 Prelube all needle bearings with
 Type "E" Grease, No. 49-08-4122.

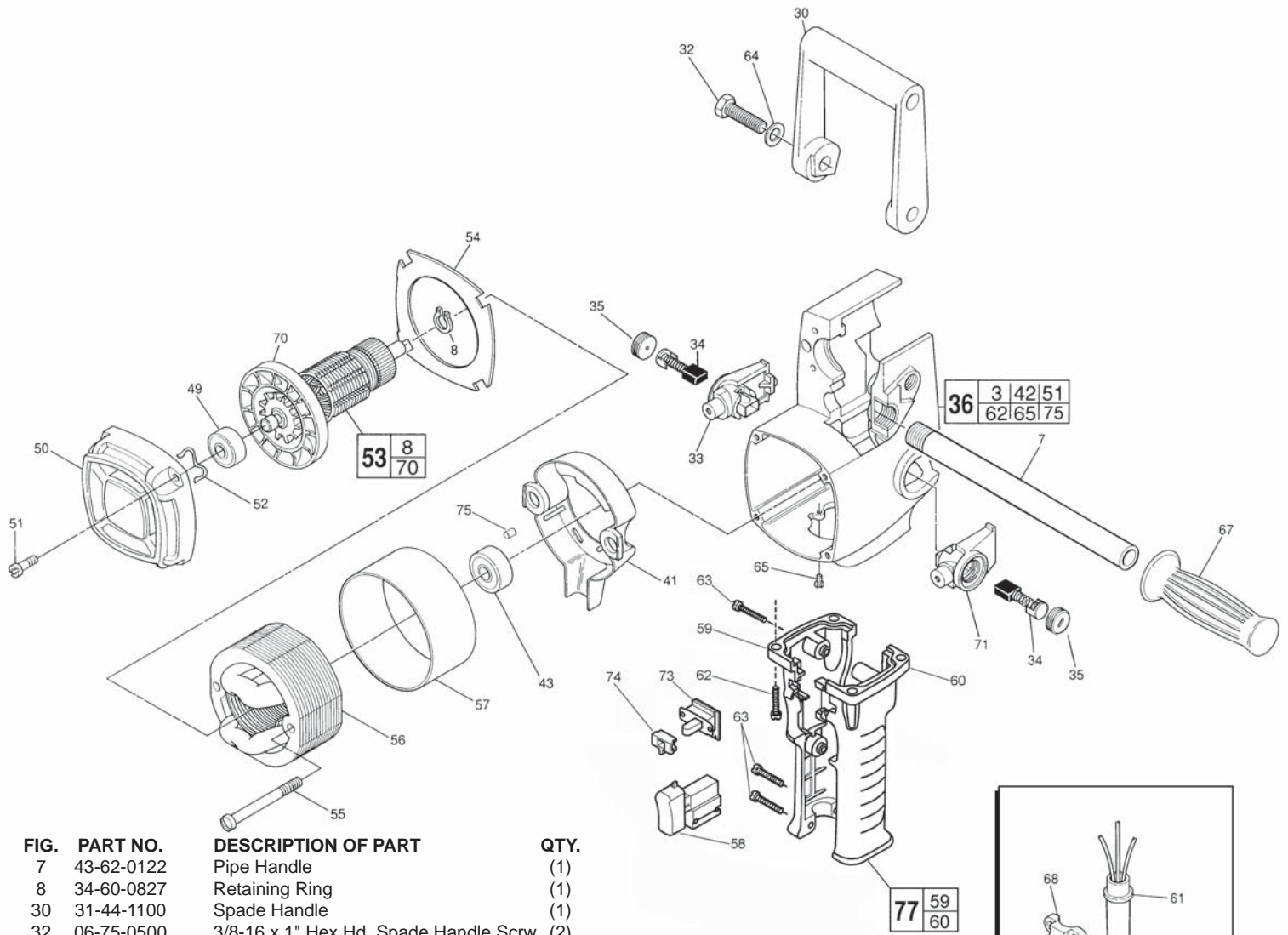
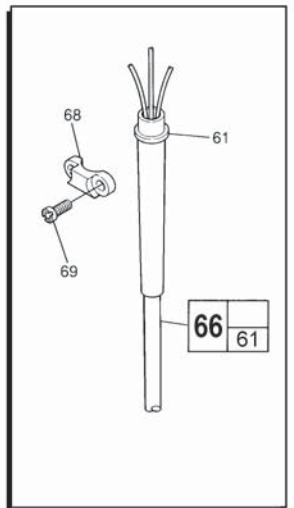


FIG.	PART NO.	DESCRIPTION OF PART	QTY.
	7	Pipe Handle	(1)
	8	Retaining Ring	(1)
	30	Spade Handle	(1)
	32	3/8-16 x 1" Hex Hd. Spade Handle Scrw	(2)
	33	R. H. Brush Holder Assembly	(1)
	34	Carbon Brush Assembly	(2)
	35	Brush Retaining Cap	(2)
	36	Motor Housing Assembly	(1)
	41	Coil Shield	(1)
	43	Ball Bearing	(1)
	49	Ball Bearing	(1)
	50	Bearing Support Housing	(1)
	51	8-32 x 3/4" Pan Hd. T-20 Screw	(4)
	52	Spring Washer	(1)
	53	Armature Assembly	(1)
	54	Baffle	(1)
★	55	8-16 x 1.80" Pan Hd. Plast. T-20 Screw	(2)
	56	Field Assembly	(1)
	57	Field Insulator	(1)
★	58	Switch	(1)
★	59	R.H. Drill Handle	(1)
★	60	L.H. Drill Handle	(1)
	61	Cord Protector	(1)
	62	1/4-20 x 3/4" Pan Hd. Taptite T-27 Screw	(4)
	63	8-16 x 1" Pan Hd. Plastite T-20 Screw	(3)
	64	Flat Washer	(2)
	65	6-32 x 1/4" Ground Screw	(1)
★	66	Cord Set	(1)
	67	Handle Grip	(1)
	68	Cord Clamp	(1)
	69	8-16 x 5/8" Pan Hd. Slit. T-20 Plastite	(2)
	70	Fan	(1)
	71	L.H. Brush Holder Assembly	(1)
★	73	Fwd./Rev. Switch	(1)
★	74	Interlock	(1)
★	75	Retaining Slug	(1)
★	77	Handle Set	(1)
★	10-98-5979	Caution Label (Not Shown)	(1)



Rely on premium drills and drivers by Milwaukee if you're looking for quality and efficiency.