



SERVICE PARTS LIST

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS

STEEL HAWG™ METAL BORING SYSTEM

CATALOG NO. 4245

STARTING
SERIAL NUMBER 782-2369REVISED BULLETIN
54-46-2450DATE
May '99WIRING INSTRUCTION
58-01-0512

EXAMPLE:

00 0

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

FIG.	PART NO.	DESCRIPTION OF PART	QTY	FIG.	PART NO.	DESCRIPTION OF PART	QTY
2	43-96-0160	Cutter Key	(1)	76	34-60-2520	Retaining Ring	(1)
4	42-70-5070	Spring Clip	(1)	77	23-44-0220	Brush Cap Screw	(2)
5	44-66-0795	Cam Guide Plate	(1)	78	22-18-0670	Carbon Brush Assembly	(2)
6	42-86-0140	Fitting	(2)	79	22-22-1350	Right Brush Holder Assembly	(1)
7	40-50-8130	Ejector Spring	(1)	80	22-22-1355	Left Brush Holder Assembly	(1)
8	34-60-2115	Retaining Ring	(1)	81	02-04-1050	Ball Bearing	(1)
9	40-50-8400	Release Spring	(1)	82	31-55-0180	Coil Shield	(1)
10	06-82-9662	8-32 x 4.062 Sems Pan T-20	(1)	83	23-16-1455	Field Insulating Sleeve	(1)
11	42-90-0220	Feed Handle Coupling	(1)	84	18-50-0230	120 Volt Field	(1)
12	45-08-0230	Feed Shaft	(1)	85	06-82-7375	8-16x2-1/2" Pan Plast. T-20	(2)
13	43-62-0980	Feed Handle	(1)	★ 86	16-50-1230	120 Volt Armature	(1)
14	43-62-0970	Feed Handle Grip	(1)	87	42-14-0330	Baffle	(1)
15	45-80-0220	Valve	(1)	88	22-84-0660	Fan Assembly	(1)
16	44-40-0630	Retaining Nut	(1)	89	02-04-0911	Ball Bearing	(1)
17	02-02-0250	1/4" Steel Ball	(3)	90	45-88-7110	Wavey Spring Washer	(1)
18	42-46-0180	Feed Cage	(1)	91	28-12-0320	End Cap	(1)
19	02-80-1300	Needle Thrust Bearing	(1)	92	42-52-0300	Base End Cap	(2)
20	45-88-8035	Thrust Washer	(1)	93	44-66-0800	Tube Protector Plate	(1)
21	40-50-8020	Feed Return Spring	(1)	94	06-82-5316	8-32x1/2" Pan Slit. Tapt. T-20	(8)
22	42-76-0415	Feed Collar Assembly	(1)	★ 95	06-82-5516	8-32x2-3/8" Pan Hd. Slit. T-20 Screw	(4)
23	42-50-0220	Feed Cam	(1)	96	06-95-5200	8-32x5/16" Slit. Hex Hd. Screw	(1)
24	06-65-3620	Groove Pin	(2)	97	43-48-0130	End Cap Gib	(1)
25	34-40-4110	O-Ring	(2)	98	28-06-1005	Magnetic Base	(1)
26	06-81-2575	8-32 x 1/2" Flat Hd. Screw	(2)	99	43-48-0140	Container Gib	(1)
27	31-50-0621	Pump Housing	(1)	100	31-10-0120	Container Mounting Bracket	(1)
28	45-88-8025	Retaining Washer	(1)	101	06-82-7270	8-16x5/8" Pan Slit. Plast. T-20	(4)
29	34-60-2400	Retaining Ring	(1)	102	45-88-8230	Cup Washer	(1)
30	02-04-1700	Ball Bearing	(1)	104	44-76-0050	Cord Protector	(1)
31	45-36-1420	Feed Housing Spacer	(1)	105	22-64-3020	Cord Set	(2)
32	28-50-6285	Motor Housing Assembly	(1)	106	34-60-0400	External Retaining Ring	(1)
33	44-66-5740	Grease Retaining Plate	(1)	107	44-60-0820	Pivot Pin	(1)
34	43-44-0840	Shift Gasket	(1)	108	44-20-0240	Handle Lock	(1)
35	44-66-5735	Shift Plate	(1)	109	06-82-7270	8-16x5/8" Pan Slit. Plast. T-20	(2)
36	06-81-8400	4-40x1/4" Pan Hd. Sems	(2)	110	42-36-1605	Left Handle Bracket	(1)
37	40-50-8030	Compression Spring	(1)	111	31-44-1485	Magnetic Base Handle	(1)
38	06-95-0075	6-32x3/8" Truss Hd. Taptite	(2)	112	42-36-1600	Right Handle Bracket	(1)
39	44-66-5555	Shift Lever Plate	(1)	113	31-17-0156	Cord Clamp	(1)
40	02-02-0180	3/16" Steel Ball	(1)	114	06-82-7270	8-16x5/8" Pan Slit. Plast. T-20	(2)
41	43-98-0310	Shift Knob	(1)	115	31-10-0110	Cord Clamp Bracket	(1)
42	31-44-1100	Spade Handle	(1)	116	42-36-1590	Base Side Bracket	(2)
43	45-88-0605	Flat Washer	(2)	117	06-82-5316	8-32x1/2" Pan Slit. Tapt. T-20	(4)
44	06-75-0500	3/8-16x1" Hex Hd. Screw	(2)	118	06-82-5316	8-32x1/2" Pan Slit. Tapt. T-20	(2)
45	12-99-1160	Service Nameplate	(1)	119	40-50-8050	Handle Lock Spring	(2)
46	06-81-8400	4-40x1/4" Pan Hd. Sems	(6)	120	45-76-0350	6" Lubricant Tube	(1)
47	06-82-9620	8-32x3-3/4" Fil. Hd. T-20	(2)	121	06-82-5320	8-32x5/8" Pan Slit. Tapt. T-20	(1)
48	06-97-3200	No. 8 Split Ring Lock Washer	(6)	122	06-82-5574	10-24x7/8" Pan Tapt. T-25	(4)
49	28-20-1260	Gear Case Cover	(1)	123	23-78-0100	Tie	(3)
★ 50	06-82-2362	8-32 x 1" Slit. Pan Hd. T-20	(4)	124	44-60-1070	Cotter Pin	(1)
51	42-92-0750	Vent Cover	(1)	125	06-82-8865	10-32x7/16" Pan Hd. Tapt. Sems T-25	(2)
52	42-76-0510	Release Collar	(1)	126	42-51-0410	Container Housing Assembly	(1)
53	02-50-4018	Needle Bearing	(1)	127	42-52-0400	Container Cap	(1)
54	02-50-2750	Needle Bearing	(1)	128	43-98-0340	Switch Knob	(1)
55	32-44-1360	2nd Intermediate Gear	(1)	129	45-88-5261	Flat Washer	(1)
56	06-42-0800	Woodruff Key	(1)	130	45-12-0450	Plunger Boot	(1)
57	06-42-1200	Woodruff Key	(1)	131	45-06-0460	Container Seal	(1)
58	32-60-2350	High Speed Pinion Gear	(1)	132	31-50-0610	Switch Housing	(1)
59	14-08-0170	High Speed Clutch Gear Assy	(1)	133	23-66-1480	Switch	(1)
60	44-90-4260	Shifter Ring	(1)	134	31-15-0390	Switch Housing Cover	(1)
61	38-50-5731	Spindle	(1)	135	42-36-1630	Switch Plunger Bracket	(1)
62	36-66-4440	2nd Intermediate Shaft	(1)	136	06-82-7409	8-16x1/2" Pan Plast. T-20	(2)
63	42-24-0350	Bronze Thrust Bearing	(1)	137	06-83-2670	1/4-20x1/2" Knrl. Set Screw	(2)
64	45-88-0510	Thrust Bearing Washer	(1)	138	06-83-2650	1/4-20x3/8" Knrl. Set Screw	(2)
65	02-50-4016	Needle Bearing	(1)	139	06-65-1527	Roll Pin	(2)
66	45-06-0470	Oil Seal	(1)	140	06-65-3605	Pump Dowel Pin	(1)
67	42-24-0330	Pump Bearing	(1)	141	44-70-0215	Switch Plunger Assembly	(1)
68	02-04-1020	Ball Bearing	(1)	142	28-50-0445	Feed Housing Assembly	(1)
69	32-42-1350	1st Intermediate Gear	(1)	143	36-66-4445	2nd. Intermediate Shaft Assembly	(1)
70	06-42-0400	Woodruff Key	(1)	144	42-20-0610	Perm. Mag. Base Assembly	(1)
71	36-66-4430	1st Intermediate Shaft	(1)	★ 145	44-60-1285	Locating Pin Assembly	(1)
72	45-88-7100	Washer	(1)	146	44-60-1280	Locating Pin	(1)
73	02-50-2020	Needle Bearing	(1)	★ 148	45-76-0360	8" Lubricant Tube	(1)
74	14-08-0180	Low Speed Clutch Gear Assy	(1)	150	10-15-0210	On-Off Label	(1)
75	34-60-1290	Retaining Ring	(2)	151	45-36-1470	Spacer	(1)
					43-74-0080	Chain Hook	(1)
					42-60-0120	Chain	(1)

SEE BACK OF BULLETIN FOR
SPECIAL NOTES AND LUBRICATIONIMPORTANT: SEE NOTES FOR ITEMS
124 and 141 BEFORE DISASSEMBLYMILWAUKEE ELECTRIC TOOL CORPORATION
13135 W. Lisbon Road, Brookfield, WI 53005
Drwg. 1

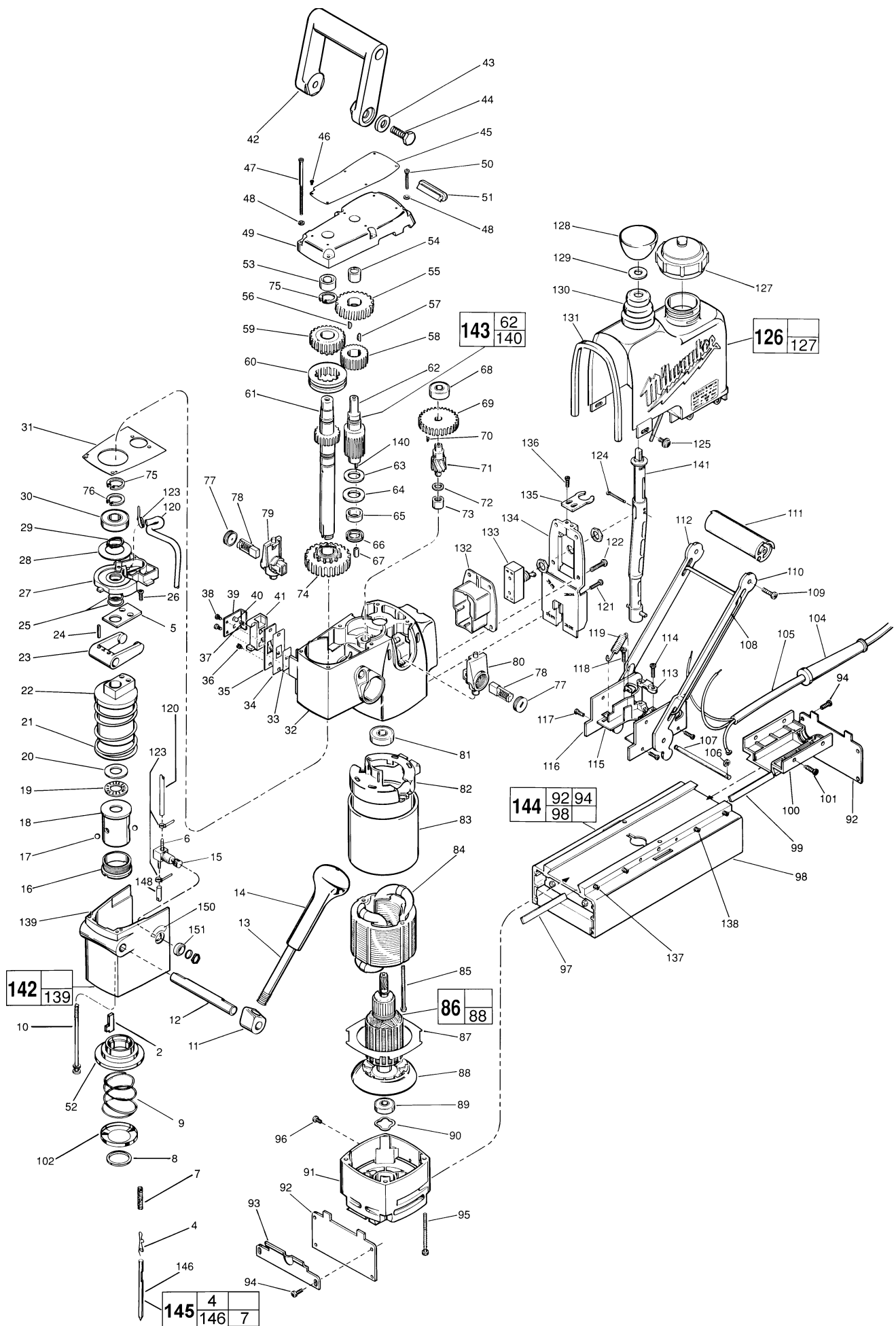
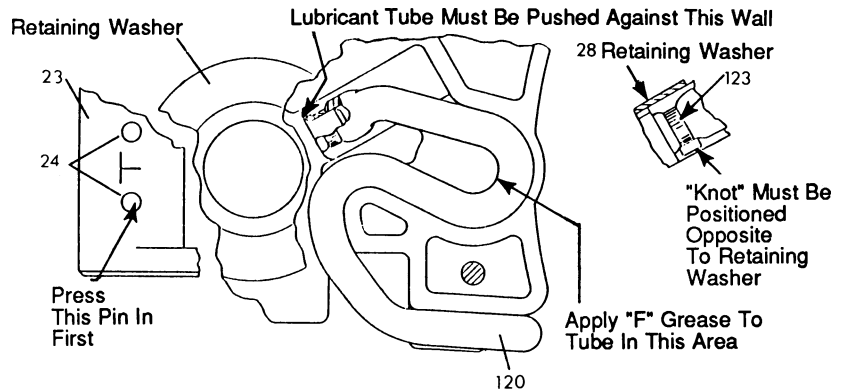


FIG. NOTE

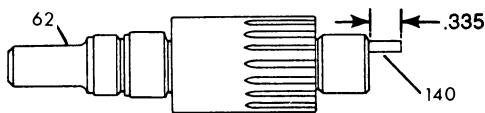
- 23 "T" marking on feed cam must face up.
- 24 Groove pins must be pressed in order shown.
- 120 One end of lubricant tube must be pushed against the wall of pump housing, as shown.
- 123 Set tie gun tension at its' maximum. "Knot" must be positioned opposite to retaining washer as shown.

FIG. LUBRICATION

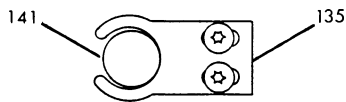
- 120 Apply a thin coating of type "F" grease, No. 49-08-4165 to areas shown on lubrication tube.

**FIG. NOTE**

- 62, 140 Pin to be pressed into shaft to dimension shown, with no burrs or peening allowed on head of pin after assembly.

**FIG. NOTE**

- 135 Bracket must be positioned against plunger as shown before screws are tightened.

**FIG. NOTE**

- 10,95, 137 Apply Hernon #423 blue sealant. Keep grease away from threaded holes. **IMPORTANT: Check Torque!**
- 12 Flats must face upward as illustrated on parts drawing.
- 16 Tighten securely with tool number 61-20-0050. Note: Left hand thread. 90-125 in./lbs.
- 33,34, 35 One corner is rounded on all three parts. They must all face with the rounded corners closest toward the "H" engraved into the housing at the top.
- 66 Rubber seal to face inside of casting.
- 68 Open end to face gear.
- 89 Seal to face fan.
- 120 Push one end of lubricant tube 3/8" to 1/2" onto brass tube of lubricant container.
- 133 Mount switch with slot of switch facing towards end cap (Item 91).
- 124, 141 Before removing cotter pin, make note of which slot, in switch plunger, the pin has been placed. Reassemble accordingly. Bend pin tabs around plunger.

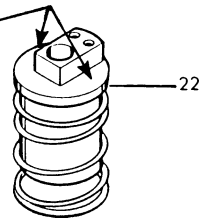
SPECIAL NOTES:

- Check function of switch / base interlock system.
- After servicing unit, run a tank full of Hawg Wash through to check for proper fluid flow. It should empty in 4-1/2 minutes or less with fluid control valve completely open.

FIG. LUBRICATION

- 22 Coat both areas of feed collar as shown, with type "N" grease, No. 49-08-4230.

Coat Both Sides With "N" Grease

**FIG. LUBRICATION**

- 19 "Bow" should face towards end of spindle.
- 19, 20 Coat both sides of these items with type "N" grease, No. 49-08-4230, before placing in feed collar.
- 27 Apply a small amount of type "F" grease, No. 49-08-4165, to both inner grooves before inserting O-rings. Keep grease away from cross hole.
- 32 Apply 3 oz. of type "J" grease, No. 49-08-4220. 1 oz. into each gear cavity.
- 22, 61 After sliding pump housing onto spindle, coat entire spindle and inside of feed collar with type "F" grease No. 49-08-4165 before the feed housing and it's inside mechanism is assembled. Keep grease out of key slot at end of spindle after assembly.
- 61 Apply a thin coat of type "N" grease, No. 49-08-4230, to outside diameters of spindle where items number 59 and 74 fit before assembling.
- 63,64 Coat both these items with type "J" grease before assembly.
- 140 Coat pin lightly with type "J" grease, No. 49-08-4220, before assembly of item 67.
- 49 Apply 1 oz. of type "J" grease, No. 49-08-4220 onto inside of gear case cover.

Run-in Specification				
Volts	RPM-No Load		AMPS-No Load	
	LO	HI	LO	HI
120	500	1000	4.0-6.0	4.0-6.0

Mandatory Fasteners' Torque

Fig. No.	Part No.	Size	Type	Drive	Torque in./lb min/max. Seating
95	06-82-5516	8-32	Machine	T-20	23-28
36,46	06-81-8400	4-40	Machine	Slot	3-6
94,117,118	06-82-5316	8-32	Taptite	T-20	30-40*
101,109,114	06-82-7270	8-16	Plastite	T-20	25-30**
47	06-82-9620	8-32	Machine	T-20	18-23
10	06-82-9662	8-32	Machine	T-20	8-11
138	06-83-2650	1/4-20	Machine	1/8 Hex Hd.	12-15
137	06-83-2670	1/4-20	Machine	1/8 Hex Hd.	25-35
77	23-44-0220	3/4-18	Machine	Slot	9-12

* Base end cap screws only 23-28 in./lbs.

** Container mounting bracket screws only 15-20 in./lbs.
Switch hex nut 14-17 in./lbs.