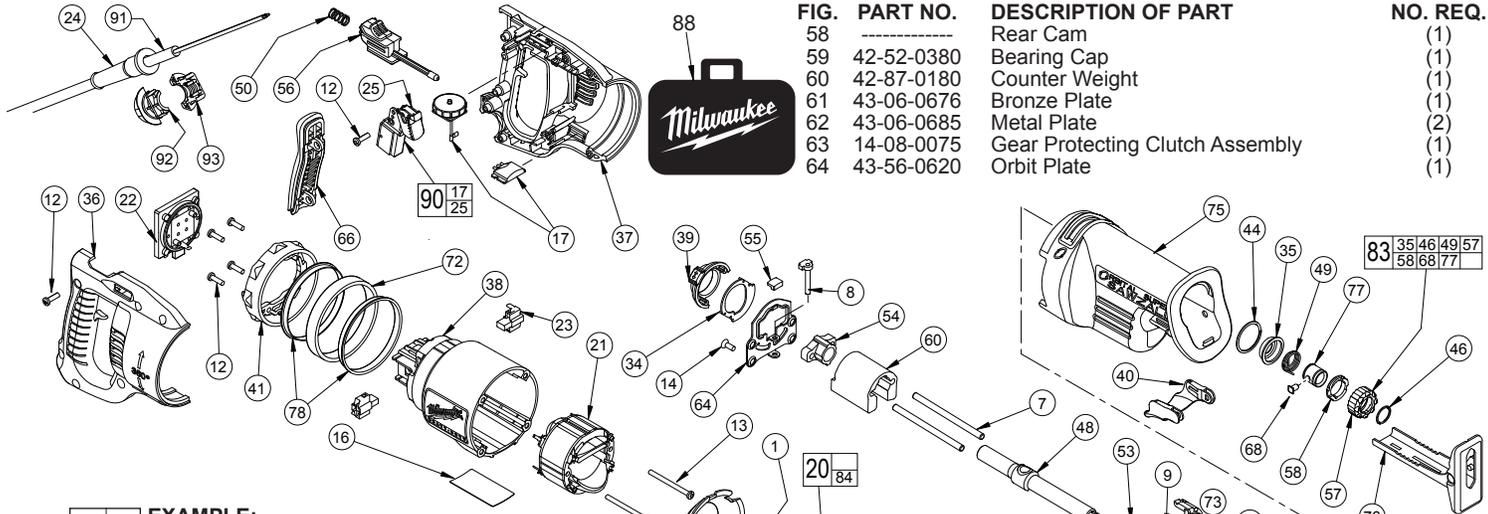




# SERVICE PARTS LIST

**BULLETIN NO.**  
**54-40-7565**

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-40-7564	DATE Feb. 2017
<b>SAWZALL® with ROTATING HANDLE</b>			
CATALOG NO.	<b>6523-21</b>	STARTING SERIAL NO.	<b>A65F</b>
		WIRING INSTRUCTION <b>See Page 3</b>	



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

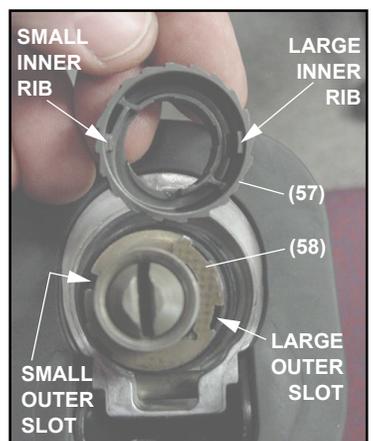
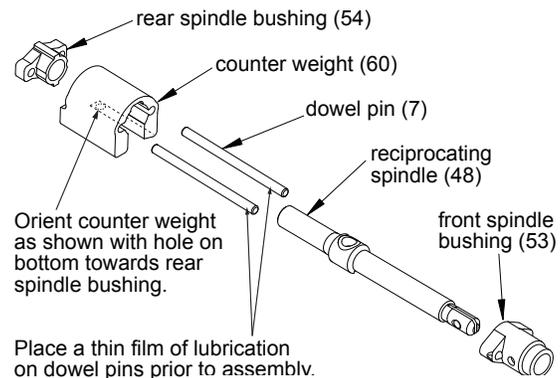
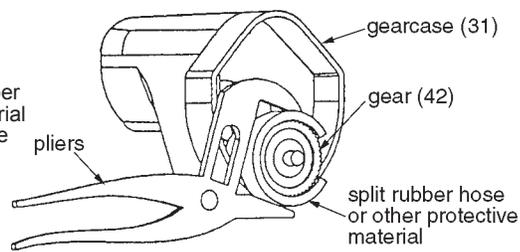
FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	02-04-0845	Ball Bearing	(1)
2	02-04-0915	Ball Bearing	(1)
3	02-04-1511	Ball Bearing	(1)
4	02-50-2150	Needle Bearing	(1)
5	05-88-0302	K50 x 60mm Washer Hd. PT Screw	(4)
6	06-55-3790	5/16-24 Spinlock Hex Nut	(1)
7	06-65-0045	Dowel Pin	(2)
8	43-36-0125	Cam Follower	(1)
9	-----	Orbit Pivot Pin	(2)
10	06-82-7253	8-32 x .38 Taptite T-20 Screw	(3)
11	06-82-7255	DG50 x 10mm Screw	(3)
12	06-82-7270	8-16 x .625 Slit. Plastite T-20 Screw	(2)
13	06-82-7453	8-16 x 2025 Slit. Plastite T-20 Screw	(2)
14	06-82-8870	1/2-DG50 Thread Form Screw	(4)
16	12-99-2576	Service Nameplate	(1)
17	-----	Remote Dial Assembly	(1)
18	14-67-0126	Secondary Wobble Plate Assembly	(1)
19	14-67-0136	Primary Wobble Plate Assembly	(1)
20	16-30-0700	Service Armature	(1)
21	18-30-1700	Service Field	(1)
22	22-06-0080	Rotating Contact Assembly	(1)
23	22-20-0525	Carbon Brush Assembly	(2)
★ 24	44-76-0210	Cord Protector	(1)
25	-----	Switch	(1)
30	14-30-0080	Orbit Pocket Assembly	(2)
31	28-14-2600	Gearcase	(1)
32	28-28-2600	Diaphragm	(1)
33	31-05-0155	Baffle	(1)
34	31-11-0130	Orbital Cam Plate	(1)
35	-----	Spring Cover	(1)
36	31-44-2525	Handle Half - Right	(1)
37	31-44-2526	Handle Half - Left	(1)
38	31-50-0095	Motor Housing	(1)
39	31-52-0045	Orbit Shift Lever	(1)
40	31-52-0090	Shoe Release Lever	(1)
41	31-58-0165	Motor Ring	(1)
42	32-40-2050	Intermediate Gear	(1)
43	34-40-0040	O-Ring	(2)
44	34-60-0125	Retaining Ring	(1)
45	34-60-1315	External Retaining Ring	(2)
46	34-60-3700	Retaining Ring	(1)
47	36-92-0701	Wobble Shaft	(1)
48	38-50-6400	Reciprocating Spindle	(1)
49	-----	Torsion Spring	(1)
50	40-50-8040	Spring	(1)
51	40-50-8850	Disc Spring	(1)
52	42-12-0190	Wobble Shaft Axle	(1)
53	42-24-0066	Front Spindle Bushing	(1)
54	42-24-0525	Rear Spindle Bushing	(1)
55	42-38-0055	Orbit Bumper	(1)
56	42-42-0550	Rotation Lock Button	(1)
57	-----	Front Cam	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
58	-----	Rear Cam	(1)
59	42-52-0380	Bearing Cap	(1)
60	42-87-0180	Counter Weight	(1)
61	43-06-0676	Bronze Plate	(1)
62	43-06-0685	Metal Plate	(2)
63	14-08-0075	Gear Protecting Clutch Assembly	(1)
64	43-56-0620	Orbit Plate	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
65	43-78-0577	Orbit Drive Hub	(1)
66	44-52-0105	Cushion Grip	(1)
67	44-60-1635	Shoe Pin	(1)
68	-----	Lock Pin	(1)
69	44-66-0880	Shoe Retainer	(1)
70	44-86-0035	Front Orbit Cap	(1)
71	44-86-0655	Bearing Retainer	(1)
72	44-90-4550	Handle Ring	(1)
73	45-06-0110	Orbit Seal	(1)
74	45-06-0475	Polypak Seal	(1)
75	45-12-0700	Gearcase Insulator	(1)
76	45-16-0645	Shoe Assembly	(1)
77	-----	Sleeve	(1)
78	45-22-0650	Sleeve	(2)
79	45-28-0555	Slinger	(1)
80	45-36-1445	Spacer	(1)
81	45-88-1555	Washer	(1)
82	45-88-8577	Washer	(1)
83	14-46-1062	Large Quik-Lok Blade Clamp	(1)
84	22-84-0531	Fan	(1)
87	45-06-0501	Felt Seal	(1)
88	42-55-2051	Carrying Case	(1)
90	23-66-4225	Switch Assembly	(1)
★ 91	22-64-1622	120V Cord Set	(1)
★ 92	31-17-0260	Lower Cord Clamp	(1)
★ 93	31-17-0267	Upper Cord Clamp	(1)
	23-94-7400	Leadwire Assembly (Not Shown)	(1)
	23-94-7405	Leadwire Assembly (Not Shown)	(1)
	23-94-7410	Leadwire Assembly (Not Shown)	(1)
	23-94-7420	Leadwire Assembly (Not Shown)	(1)

**MILWAUKEE ELECTRIC TOOL CORPORATION**  
13135 W. LISBON RD., BROOKFIELD, WI 53005  
Drwg. 2

- FIG. 1**
- NOTES:**  
 Bearing to be installed with seal towards commutator.
- 4,32 Press needle bearing flush  $\pm .005$  with inner surface of diaphragm.
- 6,52 Apply Blue Loctite® 242 to threads of wobble shaft axle prior to installing spinlock hex nut. Torque spinlock hex nut to 160-190 in. lbs.
- 6,42 Hold the intermediate gear still with a large pair of pliers and a piece of rubber hose (or other tough, but pliable material) to protect the gear from the jaws of the pliers and remove the 5/16" spinlock hex nut with a wrench, as shown.
- 7,48,53,54,60 Press dowel pins flush to front side of front spindle bushing. Press dowel pins flush to back side of rear spindle bushing. **NOTE:** Reciprocating spindle (48) and counter weight (60) must be installed inside assembly (7,53) and (7,54) prior to pressing last spindle bushing into place. Be sure to orientate the counter weight with the hole on bottom towards rear spindle bushing, as shown.
- 16,38 Install nameplate in motor housing recess prior to assembling diaphragm onto motor housing.
- 30,44 **Service fixture #61-10-0205** must be used when installing retaining ring (44) onto orbit pocket assembly (30).
- 42,61 Tabs of bronze plate engage intermediate gear.
- 42,51 Concave side of disc spring towards intermediate gear.
- 62,65 Tabs of metal plates engage orbit drive hub.
- 74 O-ring of polypak seal faces mechanism - toward rear of tool.
- 79 Shoulder extension of grease slinger should face bearing.

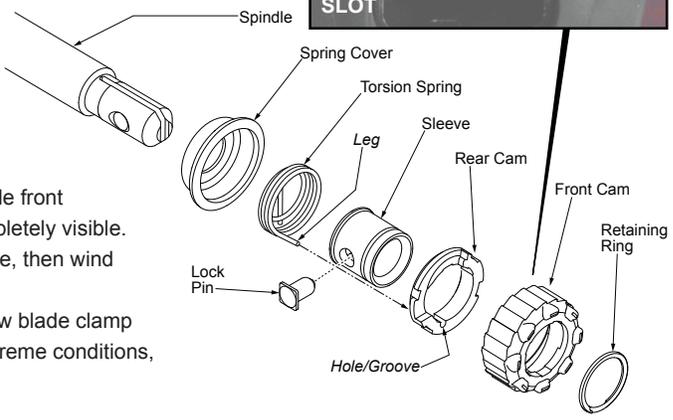


**REMOVING THE STEEL QUIK-LOK® BLADE CLAMP**

- Remove external retaining ring (46) and pull front cam (57) off.
- Pull lock pin (68) out and remove remainder of parts and discard.

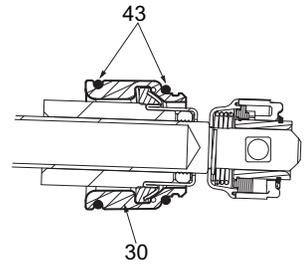
**REASSEMBLY OF THE STEEL QUIK-LOK® BLADE CLAMP**

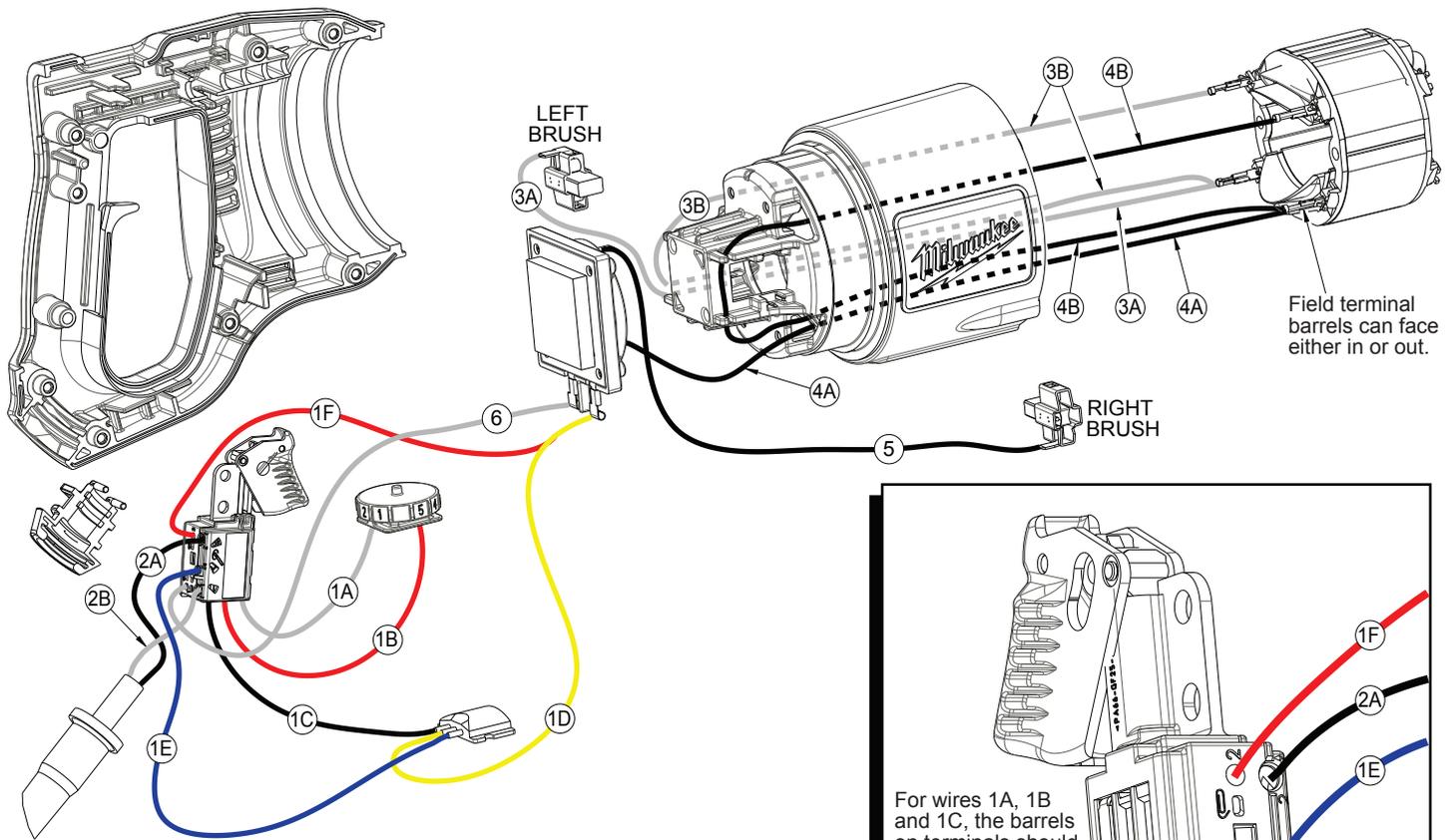
- Coat new lock pin with powdered graphite.
- Hold tool in a vertical position.
- Place spring cover (35) onto spindle.
- Slide torsion spring (49) onto spindle shaft with leg positioned at the 6:00 position.
- Slide sleeve (77) onto spindle aligning hole on sleeve with hole in spindle.
- Slide rear cam (58) over sleeve, aligning hole in rear cam with spring leg. Ensure spring leg inserts into hole in rear cam.
- Rotate rear cam (58) counter clockwise until there is clearance for lock pin (68) to be inserted into sleeve/spindle holes. Insert lock pin.
- Align front cam (57) inner ribs with rear cam outer slots (*see insert*) and slide front cam onto sleeve until it bottoms. Retaining ring (46) groove should be completely visible.
- Attach retaining ring by separating coils and inserting end of ring into groove, then wind remainder of ring into groove. Ensure ring is seated in groove.
- Blade clamp should rotate freely. During normal usage, debris may not allow blade clamp to rotate freely. The use of spray lubricant can help free blade clamp. In extreme conditions, follow these instructions to remove, clean and reassemble blade clamp.



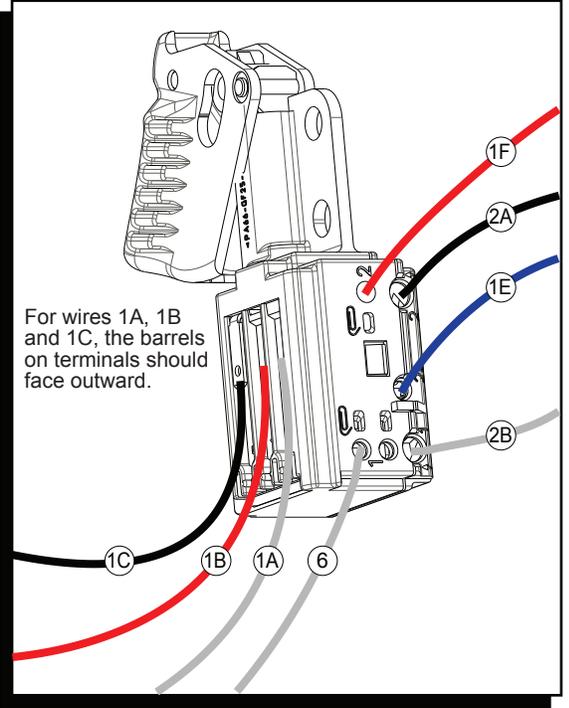
**FIG. LUBRICATION:**

- 30,43 Lightly coat o-rings with lubrication for ease of installation onto assembled orbit pockets.
- 31 Place 3.2 oz. (80 grams  $\pm$  8 grams) of type "T" grease (Cat. No. 49-08-4290), in mechanism cavity of gear case.
- 32 Place .8 oz. (20 grams  $\pm$  2 grams) of type "T" grease (Cat. No. 49-08-4290), in lower needle bearing-gear train cavity of diaphragm.
- 42,62 Apply a thin coat of type "T" grease (Cat. No. 49-08-4290) between gear and metal plate.
- 68 Pin to be coated with graphite prior to assembly.
- 87 Soak in lightweight bushing oil prior to assembly.

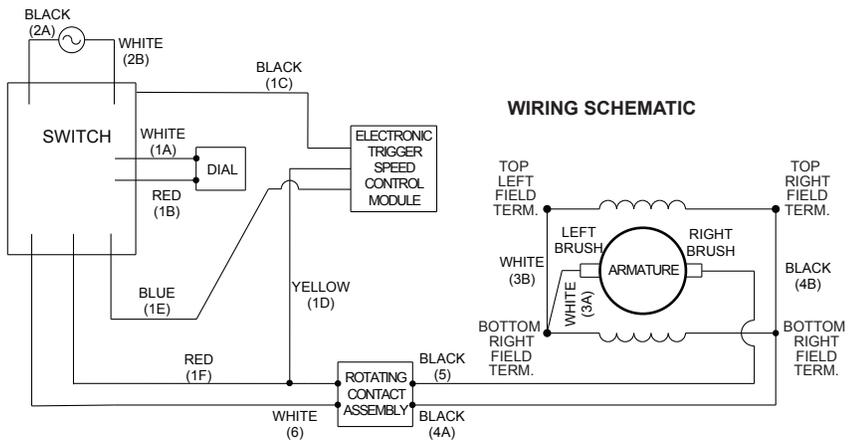




Field terminal barrels can face either in or out.



For wires 1A, 1B and 1C, the barrels on terminals should face outward.



WIRING SCHEMATIC

WIRING SPECIFICATIONS					
Wire No.	Wire Color	Origin or Part No.	Gauge	Length	Terminals, Connectors and End Wire Preparation
1A	White	Dial Assy.	----	----	Component of the 23-66-4225 Switch Assembly.
1B	Red	Dial Assy.	----	----	Component of the 23-66-4225 Switch Assembly.
1C	Black	Triac Assy.	----	----	Component of the 23-66-4225 Switch Assembly.
1D	Yellow	Triac Assy.	----	----	Component of the 23-66-4225 Switch Assembly.
1E	Blue	Triac Assy.	----	----	Component of the 23-66-4225 Switch Assembly.
1F	Red	Triac Assy.	----	----	Component of the 23-66-4225 Switch Assembly.
2A	Black	Cord Set	----	----	Component of the 22-64-1622 Cord Set.
2B	White	Cord Set	----	----	Component of the 22-64-1622 Cord Set.
3A	White	Wire Assy.	----	----	Component of Leadwire Assembly 23-94-7400.
3B	White	Wire Assy.	----	----	Component of Leadwire Assembly 23-94-7400.
4A	Black	Wire Assy.	----	----	Component of Leadwire Assembly 23-94-7405.
4B	Black	Wire Assy.	----	----	Component of Leadwire Assembly 23-94-7405.
5	Black	Wire Assy.	----	----	Component of Leadwire Assembly 23-94-7410.
6	White	Wire Assy.	----	----	Component of Leadwire Assembly 23-94-7420.

**NOTE:**  
All lead lengths are before stripping.  
All leads must be held to ± .125" unless specified elsewhere.

TERMINAL DESCRIPTION		
Code	Part No.	Qty.