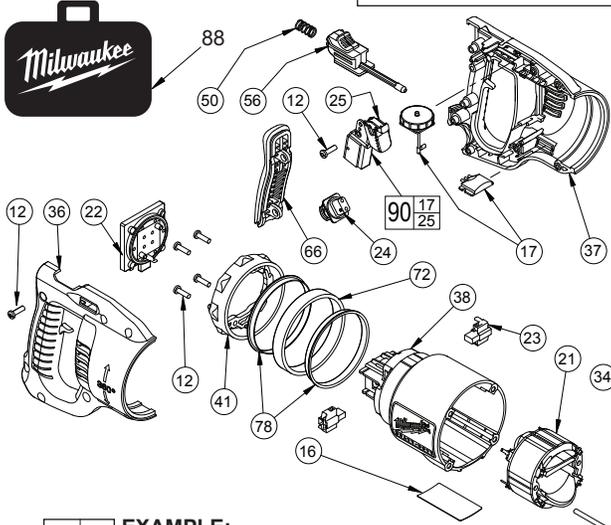




SERVICE PARTS LIST

BULLETIN NO.
54-40-7564

| | | | |
|---|----------------|---|-------------------|
| SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS | | REVISED BULLETIN 54-40-7563 | DATE Feb. 2017 |
| SAWZALL® with ROTATING HANDLE | | WIRING INSTRUCTION See Page 3 | |
| CATALOG NO. | 6523-21 | STARTING SERIAL NO. | A65E |



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 Slt. Plastite T-20 Screw | (12) |
| 13 | 06-82-7453 | 8-16 x 2025 Slt. 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 | 22-56-0705 | Blade Housing Assembly | (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) |

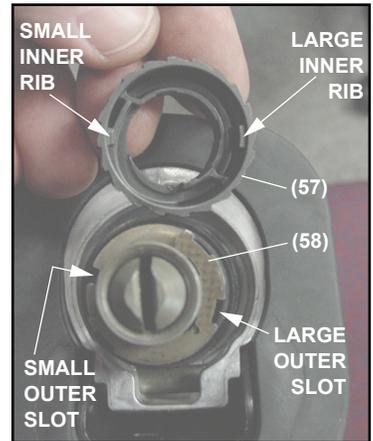
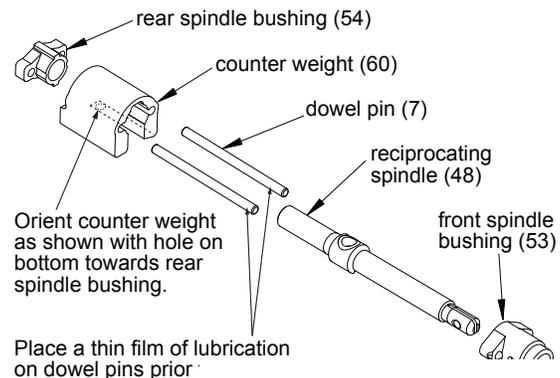
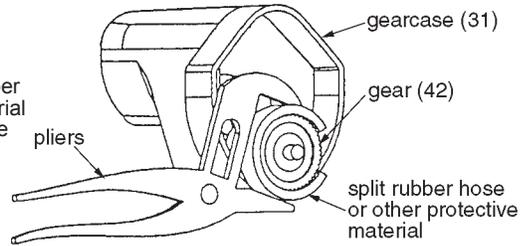
| FIG. | PART NO. | DESCRIPTION OF PART | NO. REQ. |
|------|------------|-------------------------------|----------|
| 75 | ----- | Gearcase Insulator | (1) |
| 76 | 45-16-0645 | Shoe Assembly | (1) |
| 77 | ----- | Sleeve | (1) |
| 78 | 45-22-0650 | Sleeve | (2) |
| 79 | 45-28-0555 | Slinger | (1) |
| 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) |
| | 48-76-5010 | 10' Quik-Lok Cord (Not Shown) | (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) |

| FIG. | PART NO. | DESCRIPTION OF PART | NO. REQ. |
|------|------------|-------------------------------|----------|
| 65 | 43-78-0575 | 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) |
| | 48-76-5010 | 10' Quik-Lok Cord (Not Shown) | (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) |

SEE PAGE 2 FOR IMPORTANT SERVICE NOTES

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

- 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.

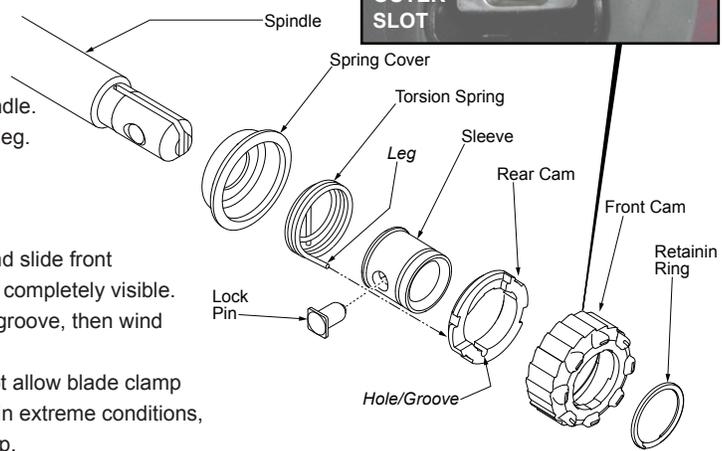
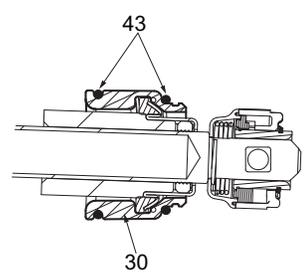
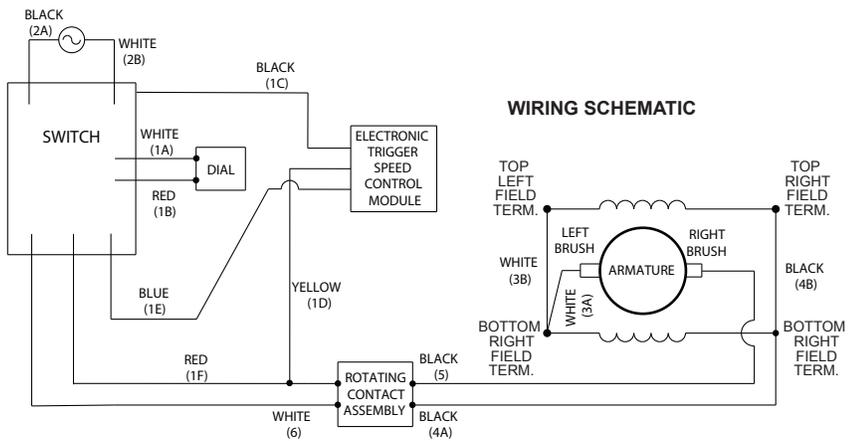
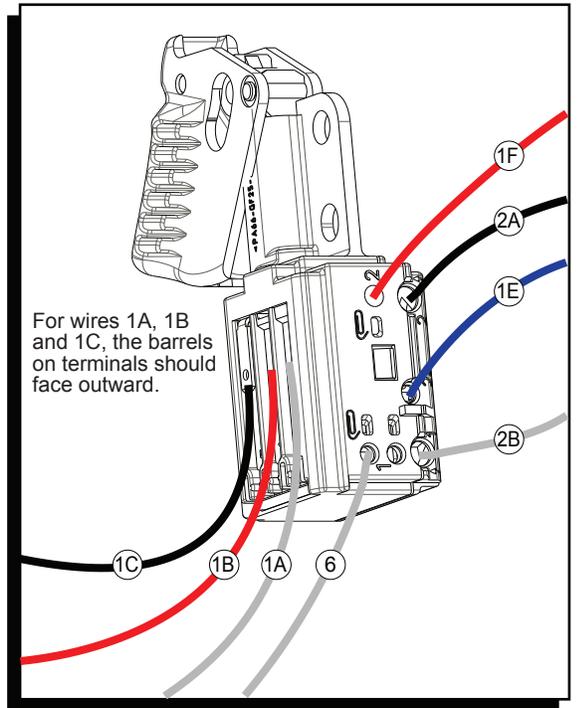
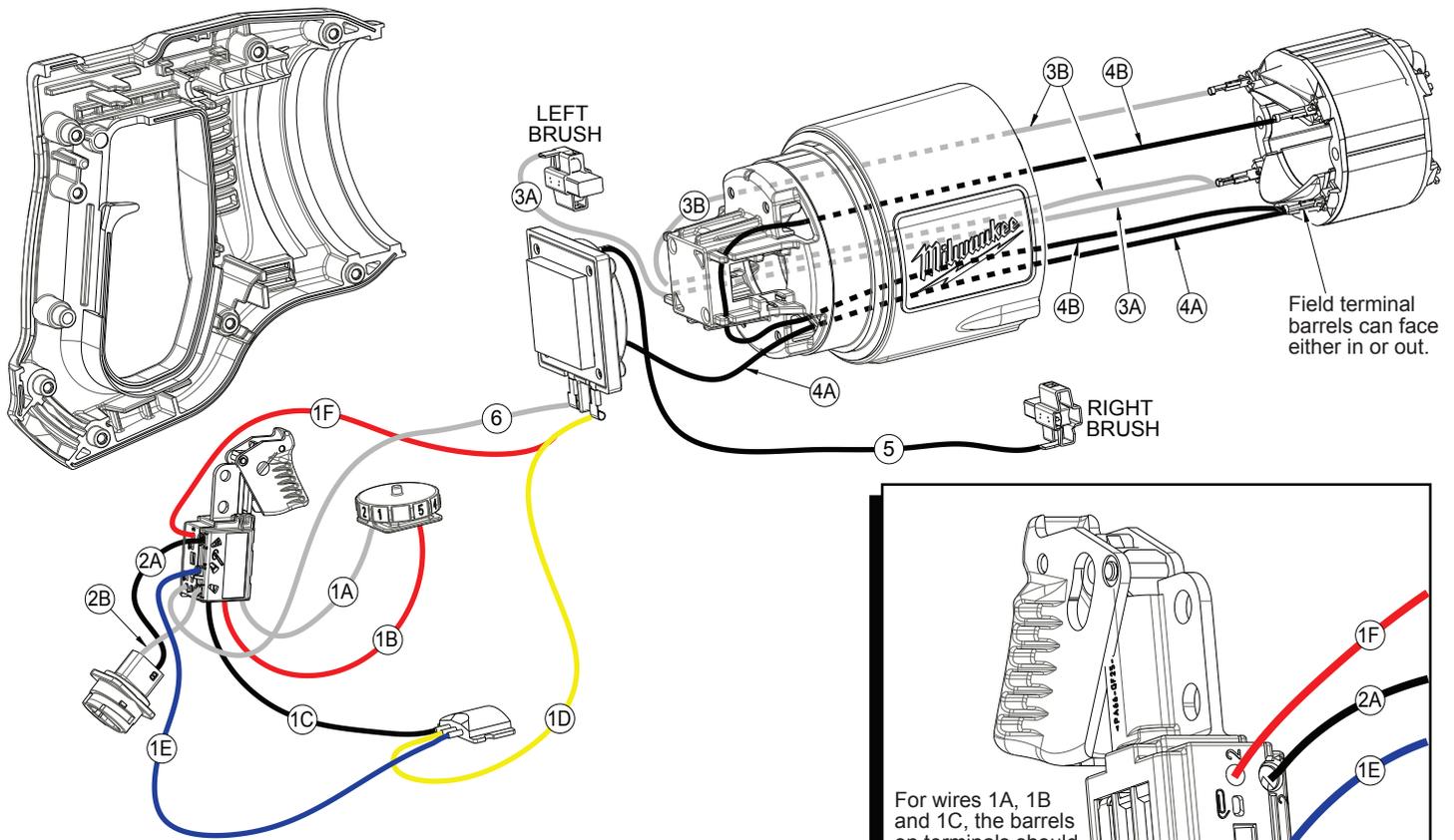


FIG. LUBRICATION:

- 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.





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 | Bld. Hsg. | ---- | ---- | Component of the 22-56-0705 Blade Hsg. Assy. |
| 2B | White | Bld. Hsg. | ---- | ---- | Component of the 22-56-0705 Blade Hsg. Assy. |
| 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. |
| | | |
| | | |
| | | |