| Milwaukee   | 8  | SERVICE   | PARTS LIS  | т  |  | LETIN NO.<br>- <b>40-7594</b>  |
|---|--|---|--|--|--|--|
| 110000  | SPECIFY CATALOG  |   | AL NO. WHEN ORDE   |  | REVISED BULLETIN<br>54-40-7593   | Feb. 2017  |
|   | CATALOG NO.  | 6520-21   | STARTING<br>SERIAL NO.   | B02E   | WIRING INSTI   |  |
| 24,79       79       12         13       62       16         12       13       15         13       35       23             13       35       23             10       EXAMPLE:       Component Parts (Small When Ordering The Asset  | 25 <sub>18</sub><br>25 <sub>10</sub><br>25 <sub>10</sub> | 36<br>38<br>33<br>5<br>21<br>78   |  | 7 46 50  | 71<br>42<br>34<br>47<br>9<br>69<br>69<br>65<br>65<br>67<br>67<br>44<br>0000<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>6 | 73<br>54<br>53<br>70<br>72   |
| 1         02-04-0845         Ball Bearing           2         02-04-0915         Ball Bearing           3         02-04-1511         Ball Bearing           4         02-50-2150         Needle Bear           5         05-88-0302         K50 x 60mm           6         06-55-3790         5/16-24 Spin           7         06-65-0045         Dowel Pin           8         43-36-0125         Cam Followe           9  | Washer Hd. PT Screw<br>lock Hex Nut<br>er<br>in<br>aptite T-20 Screw<br>m Screw<br>Slt. Plastite T-20 Screw<br>Plastite T-20 Screw<br>Slt. Plastite T-20 Screw<br>uread Form Screw   | NO. REQ.<br>(1)<br>(1)<br>(1)<br>(1)<br>(1)<br>(2)<br>(1)<br>(2)<br>(3)<br>(3)<br>(3)<br>(6)<br>(2)<br>(2)<br>(4) | 81 40 4  | 74     67       76     48       4     60       849157     49       176     49       67     67  |  |  |
| 20         14-67-0136<br>16-30-0700         Primary Wob           21         16-30-0700         Service Arma           22         18-30-1700         Service Field           23         22-20-0590         Carbon Brus           24         22-64-1622         Cord Asseml           ★ 25         23-66-4245         Switch Asser           29         14-30-0080         Orbit Pocket           30         28-14-2600         Gearcase           31         28-28-2600         Diaphragm           32         31-05-0155         Baffle           33         31-11-0130         Orbital Cam           34 | tronics Assembly<br>bble Plate Assembly<br>ature<br>h Assembly<br>bly<br>mbly<br>Assembly<br>Plate<br>- Right<br>- Left<br>ng<br>ever<br>Gear<br>ng<br>aining Ring<br>ng<br>t<br>g Spindle<br>ng<br>t Axle<br>e Bushing  |   | FIG.         PART NO.           58         43.06-0685           60         43.56-0620           61         43.78-0577           62         44-52-0105           64         44-60-1635           65 | Orbit Plate<br>Orbit Drive Hub<br>Cushion Grip<br>Shoe Pin<br>Lock Pin<br>Shoe Retainer<br>Front Orbit Cap<br>Bearing Retainer<br>Orbit Seal<br>Polypak Seal<br>Gearcase Insula<br>Shoe Assembly<br>Sleeve<br>Slinger<br>Spacer<br>Washer<br>Fan<br>Cord Protector<br>Large Quik-Lok<br>Gear Protecting<br>Felt Seal<br>Leadwire Assen | er<br>ator<br>Blade Clamp<br>Clutch Assembly<br>ably (Not Shown)<br>ably (Not Shown)   | NO. REQ.<br>(2)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1)<br>(1 |
| 51 42-24-0525 Rear Spindle<br>52 42-38-0055 Orbit Bumpe<br>53 Front Cam<br>54 Rear Cam  | r  | (1)<br>(1)<br>(1)<br>(1)  |  |  | IPORTANT SER   |  |
| 55 42-52-0380 Bearing Cap<br>57 43-06-0676 Bronze Plate   |  | (1)<br>(1)  |  | WILWAUKEE EL<br>13135 W. LISBO   | ECTRIC TOOL CON RD., BROOKFIE  | DRPORATION<br>ELD, WI 53005<br>Drwg. 3   |

 FIG.
 NOTES: Bearing to be installed with seal towards commutator.

 4,31
 Press needle bearing flush ±.005 with inner surface of diaphragm.

 6,49
 Apply Blue Loctite® 242 to treads of wobble shaft axle prior to installing spinlock hex nut. Torque spinlock hex nut to 160-190 in. lbs.

- 6,40 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.
- gearcase (30) gear (40)

 $\cap$ 

split rubber hose or other protective material

Place a thin film of lubrication on dowel pins prior to assembly.

rear spindle bushing (51)

SMAL

INNER

RIB

dowel pin (7)

reciprocating spindle (46)

front spindle bushing (50)

LARGE

INNER

RIB

- 7,46,50,51 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 (46) must be installed inside assembly (7,50) and (7,51) prior to pressing last spindle bushing into place.
- 17,37 Install nameplate in motor housing recess prior to assembling diaphragm onto motor housing.
- 29,42 Service fixture #61-10-0205 must be used when installing retaining ring (42) onto orbit pocket assembly (29).
- 40,57 Tabs of bronze plate engage intermediate gear.
- 40,48 Concave side of disc spring towards intermediate gear.
- 58,61 Tabs of metal plates engage orbit drive hub.
- 70 O-ring of polypak seal faces mechanism toward rear of tool.
- 74 Shoulder extension of grease slinger should face bearing.

## REMOVING THE STEEL QUIK-LOK® BLADE CLAMP

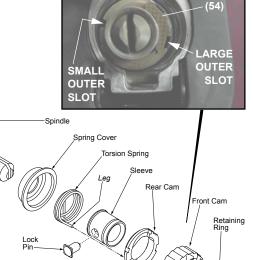
- Remove external retaining ring (44) and pull front cam (53) off.
- Pull lock pin (65) out and remove remainder of parts and discard.

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

- Coat new lock pin with powdered graphite.
- Hold tool in a vertical position.
- Place spring cover (34) onto spindle.
- Slide torsion spring (47) onto spindle shaft with leg positioned at the 6:00 position.
- Slide sleeve (73) onto spindle aligning hole on sleeve with hole in spindle.
- Slide rear cam (54) over sleeve, aligning hole in rear cam with spring leg. Ensure spring leg inserts into hole in rear cam.
- Rotate rear cam (54) counter clockwise until there is clearance for lock pin (65) to be inserted into sleeve/spindle holes. Insert lock pin.
- Align front cam (53) inner ribs with rear cam outer slots (see insert) and slide front cam onto sleeve until it bottoms. Retaining ring (44) 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: -

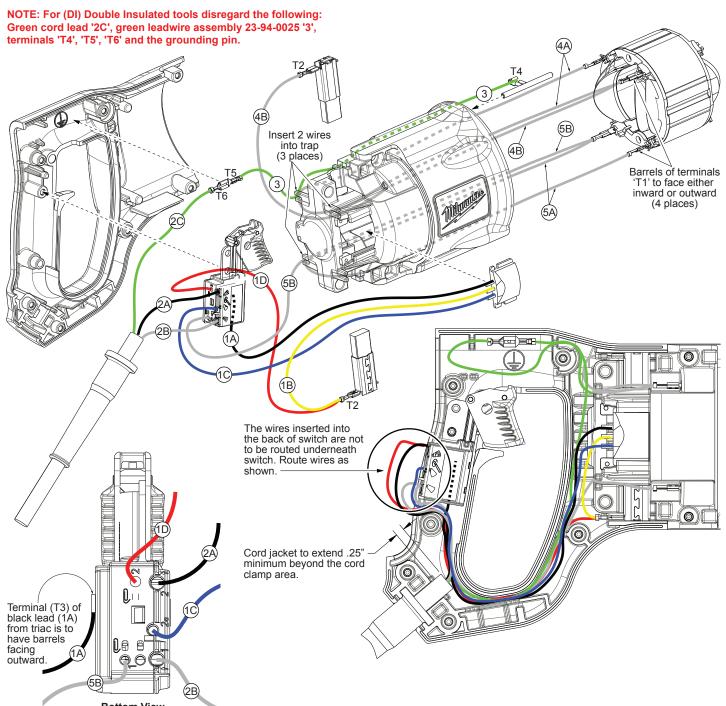
| 29,41 | Lightly coat o-rings with lubrication for ease of installation onto assembled orbit poc   | kets. |
|-------|---|-------|
| 30    | Place 3.2 oz. (80 grams $\pm$ 8 grams) of type "T" grease (Cat. No. 49-08-4290), in mechanism cavity of gear case.                  | [     |
| 31    | Place .8 oz. (20 grams ± 2 grams) of type "T" grease (Cat. No. 49-08-4290), in lower needle bearing-gear train cavity of diaphragm. |       |
| 40,58 | Apply a thin coat of type "T" grease<br>(Cat. No. 49-08-4290) between gear and metal plate.   |       |
| 65    | Pin to be coated with graphite prior to assembly.   |       |
| 87    | Soak in lightweight bushing oil prior to assembly.  |       |



Hole/Groc

41

29



Bottom View of Switch

|             | WIRING SPECIFICATIONS                |                       |     |        |  |                                 |  |
|-------------|--------------------------------------|-----------------------|-----|--------|--|---------------------------------|--|
| Wire<br>No. | Wire<br>Color                        | Origin or<br>Part No. | Ga. | Length | Terminals, Connectors and End Wire Preparation |                                 |  |
| 1A          | Black                                | TRIAC                 |     |        | Component of Switch Ass                        | sembly 23-66-4245.              |  |
| 1B          | Yellow                               | TRIAC                 |     |        | Component of Switch Assembly 23-66-4245.       |                                 |  |
| 1C          | Blue                                 | TRIAC                 |     |        | Component of Switch Assembly 23-66-4245.       |                                 |  |
| 1D          | Red                                  | TRIAC                 |     |        | Component of Switch Assembly 23-66-4245.       |                                 |  |
| 2A          | Black                                | Cord Assembly         | 16  | 4.00   | Strip .340 and tin.                            |                                 |  |
| 2B          | White                                | Cord Assembly         | 16  | 3.25   | Strip .340 and tin.                            |                                 |  |
| 2C          | Green                                | Cord Assembly         | 16  | 11.25  | Strip .19 for T6.                              |                                 |  |
| 3           | Green                                | 23-94-0025            | 18  | 7.00   | Strip each end .190 for T4 and T5.             |                                 |  |
| 4A          | White                                | 23-94-6750            | 18  | 2.90   | Strip one end .19 for T2.                      | Strip both .15 and join for T1. |  |
| 4B          | White                                | 23-94-6750            | 18  | 5.00   | Strip one end .15 for T1.                      | Suppour . IS and join for T     |  |
| 5A          | White                                | 23-94-6755            | 18  | 9.25   | Strip one .320 and tin.                        | Strip both .15 and join for T1. |  |
| 5B          | White                                | 23-94-6755            | 18  | 5.00   | Strip one end .15 for T1.                      |                                 |  |
|             | BULK LEAD WIRE - BULLETIN 58-01-0003 |                       |     |        |  |                                 |  |

NOTE:

All leads must be held to  $\pm$  1/8". All lead lengths are before stripping.

| TERMINAL DESCRIPTION |            |       |  |
|----------------------|------------|-------|--|
| Code                 | Part No.   | Qnty. |  |
| T1                   | 23-74-1060 | 4     |  |
| T2                   | 23-74-0017 | 2     |  |
| T3                   | 23-74-0010 | 1     |  |
| T4                   | 23-74-0605 | 1     |  |
| T5                   | 23-74-0105 | 1     |  |
| T6                   | 23-74-1095 | 1     |  |