

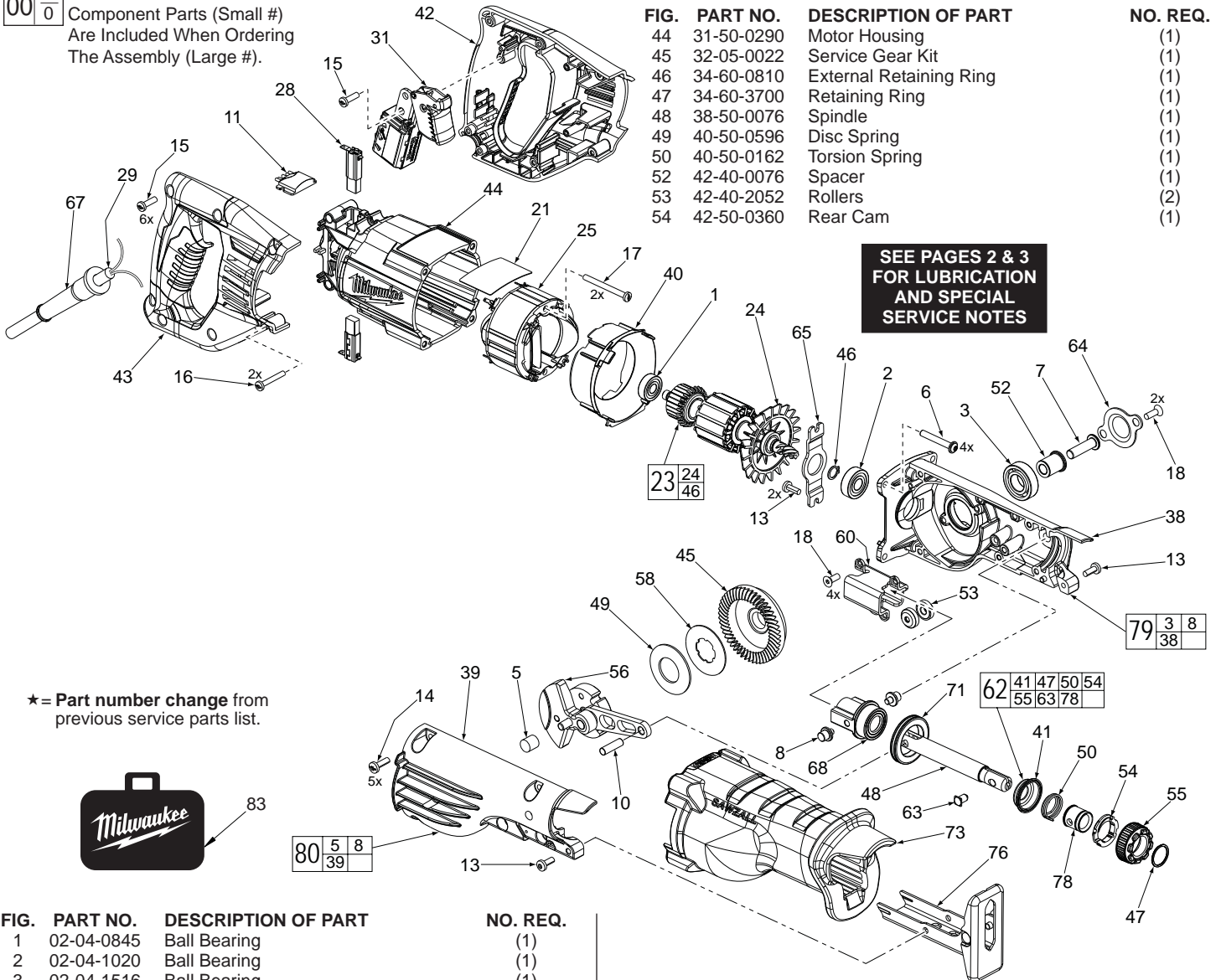


SERVICE PARTS LIST

BULLETIN NO.
54-40-6522

| | | | |
|--|----------------|--|-------------------|
| SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS | | REVISED BULLETIN 54-40-6521 | DATE Apr. 2011 |
| SAWZALL® Reciprocating Saw | | | |
| CATALOG NO. | 6509-31 | STARTING SERIAL NO. | C24C |
| | | WIRING INSTRUCTION 58-01-0291 | |

EXAMPLE:
00 0 Component Parts (Small #)
Are Included When Ordering
The Assembly (Large #).



**SEE PAGES 2 & 3
FOR LUBRICATION
AND SPECIAL
SERVICE NOTES**

* = Part number change from previous service parts list.

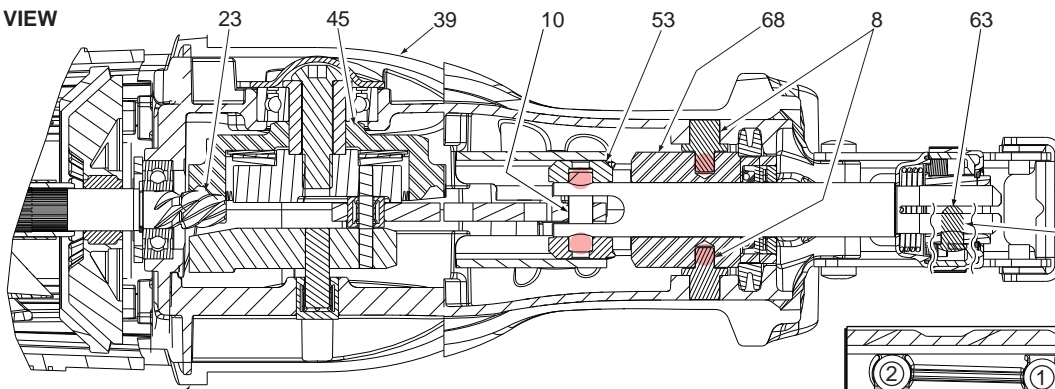


| FIG. | PART NO. | DESCRIPTION OF PART | NO. REQ. |
|------|------------|--|----------|
| 1 | 02-04-0845 | Ball Bearing | (1) |
| 2 | 02-04-1020 | Ball Bearing | (1) |
| 3 | 02-04-1516 | Ball Bearing | (1) |
| 5 | 02-50-1640 | Needle Bearing | (1) |
| 6 | 05-88-8309 | K50 x 35mm Washer Hd. PT T-20 Screw | (4) |
| 7 | 06-08-0017 | Drive Hub Bolt (R.H. Thread) | (1) |
| 8 | 06-65-0130 | Pivot Pin | (1) |
| 10 | 06-65-0145 | Pin - Connecting Rod | (1) |
| 11 | 14-20-3155 | Remote Electronics Assembly | (1) |
| 13 | 06-82-5314 | 10-24 x .5 Pan Hd. Tapt. T-25 Screw | (4) |
| 14 | 06-82-5411 | 10-24 x .625 Pan Hd. Tapt. T-25 Screw | (5) |
| 15 | 06-82-7270 | 8-16 x .625 Pan Hd. Slit. Plast. T-20 Screw | (6) |
| 16 | 06-82-7326 | 8-16 x 1.00 Pan Hd. Slit. Plast. T-20 Screw | (2) |
| 17 | 06-82-7410 | 8-16 x 1.875 Pan Hd. Slit. Plast. T-20 Screw | (2) |
| 18 | 06-82-8870 | 1/2-DG50 Thread Form T-20 Screw | (6) |
| 21 | 12-99-1756 | Service Nameplate | (1) |
| 23 | 16-30-0585 | Service Armature | (1) |
| 24 | 22-84-0531 | Fan | (1) |
| 25 | 18-31-0525 | Service Field | (1) |
| 28 | 22-20-0065 | Carbon Brush Assembly | (2) |
| 29 | 22-64-1622 | Cordset | (1) |
| 31 | 23-66-0205 | Switch | (1) |
| 38 | 28-14-0045 | Gearcase - Left | (1) |
| 39 | 28-14-0046 | Gearcase - Right | (1) |
| 40 | 31-05-0195 | Baffle | (1) |
| 41 | 31-15-0170 | Spring Cover | (1) |
| 42 | 31-44-0810 | Handle - Left | (1) |
| 43 | 31-44-0815 | Handle - Right | (1) |

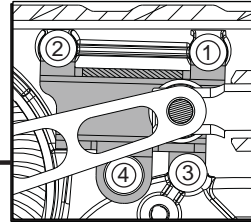
| FIG. | PART NO. | DESCRIPTION OF PART | NO. REQ. |
|------|------------|--|----------|
| 55 | 42-50-0355 | Front Cam | (1) |
| 56 | 14-09-0195 | Crankshaft Assembly | (1) |
| 58 | 43-06-0025 | Metal Plate | (1) |
| 59 | 43-06-0030 | Metal Plate (Version 'A' only, see detail) | (1) |
| *60 | 43-56-0055 | Non-Orbit Slot | (1) |
| 62 | 14-46-1060 | Quik-Lok Blade Clamp Kit | (1) |
| 63 | 44-60-1750 | Lock Pin | (1) |
| 64 | 44-66-0280 | Bearing Retaining Plate - Gearcase Bearing | (1) |
| 65 | 44-66-1070 | Bearing Retaining Plate - Armature Bearing | (1) |
| 67 | 44-76-0210 | Cord Protector | (1) |
| 68 | 14-86-0105 | Front Bushing Assembly | (1) |
| 71 | 45-06-0230 | 'H' Seal | (1) |
| 73 | 45-12-2052 | Insulator | (1) |
| 76 | 45-16-0030 | Shoe Assembly | (1) |
| 78 | 45-22-0175 | Sleeve | (1) |
| 79 | 14-30-0145 | Left Gearcase Assembly | (1) |
| 80 | 14-30-0146 | Right Gearcase Assembly | (1) |
| 83 | 42-55-2050 | Carrying Case | (1) |
| | 23-94-0510 | Leadwire Assembly - Black (Not Shown) | (1) |
| | 23-94-0520 | Leadwire Assembly - White (Not Shown) | (1) |

MILWAUKEE ELECTRIC TOOL CORPORATION
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Drwg. 1

TOP VIEW

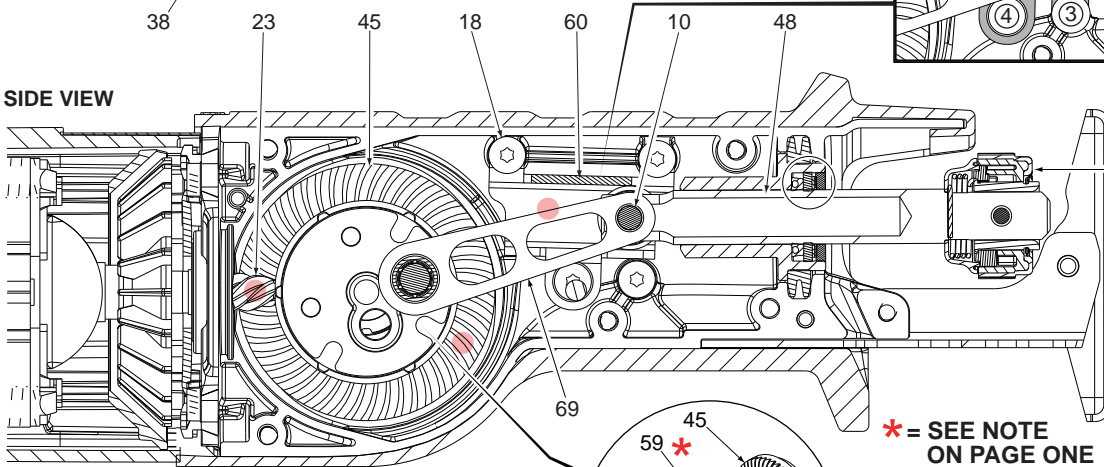


Pin (63) is to be coated with graphite prior to assembly.



When securing the orbit slot (60), tighten screws (18) in the order shown.

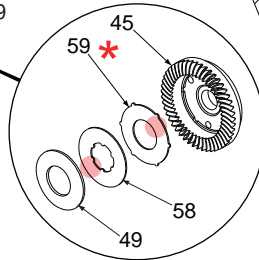
SIDE VIEW



See next page for servicing of the Quik-Lok® Blade Clamp Assembly.

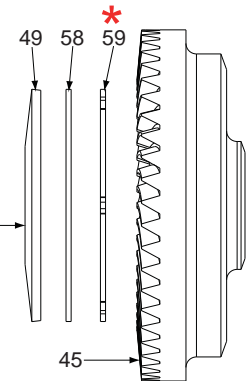
LUBRICATION: Type 'L' Grease No. 49-08-4175 (16 oz. tub)

- Place 30g ±3g (approx. 1 ounce) on top of gear (45) and armature pinion (23), being sure to cover the middle of the gear and all teeth.
- Place 15g ±3g (approx. .5 ounce) to the area where the gear (45) and the connecting rod (69) interface.
- Coat both sides of the metal clutch plates (58,59).
- Lightly coat both pins (8) where connections go into holes of front bushing assembly (68).
- Lightly coat both ends of pin (10) prior to installing rollers (53).

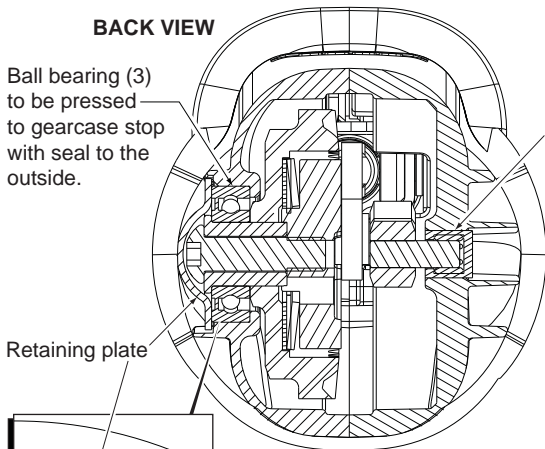


*** = SEE NOTE ON PAGE ONE**

Concave side of disc spring (49) must face toward metal plates (58,59) and gear assembly (45).



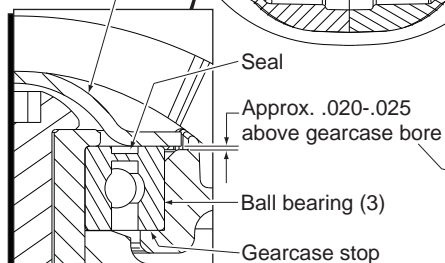
BACK VIEW



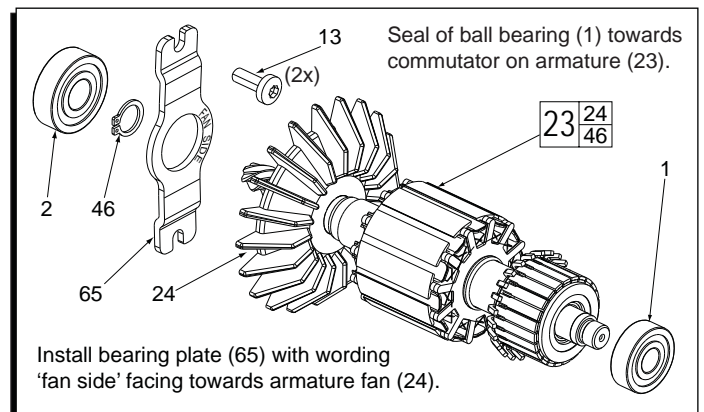
Ball bearing (3) to be pressed to gearcase stop with seal to the outside.

Press needle bearing (5) flush to subflush .005".

Retaining plate

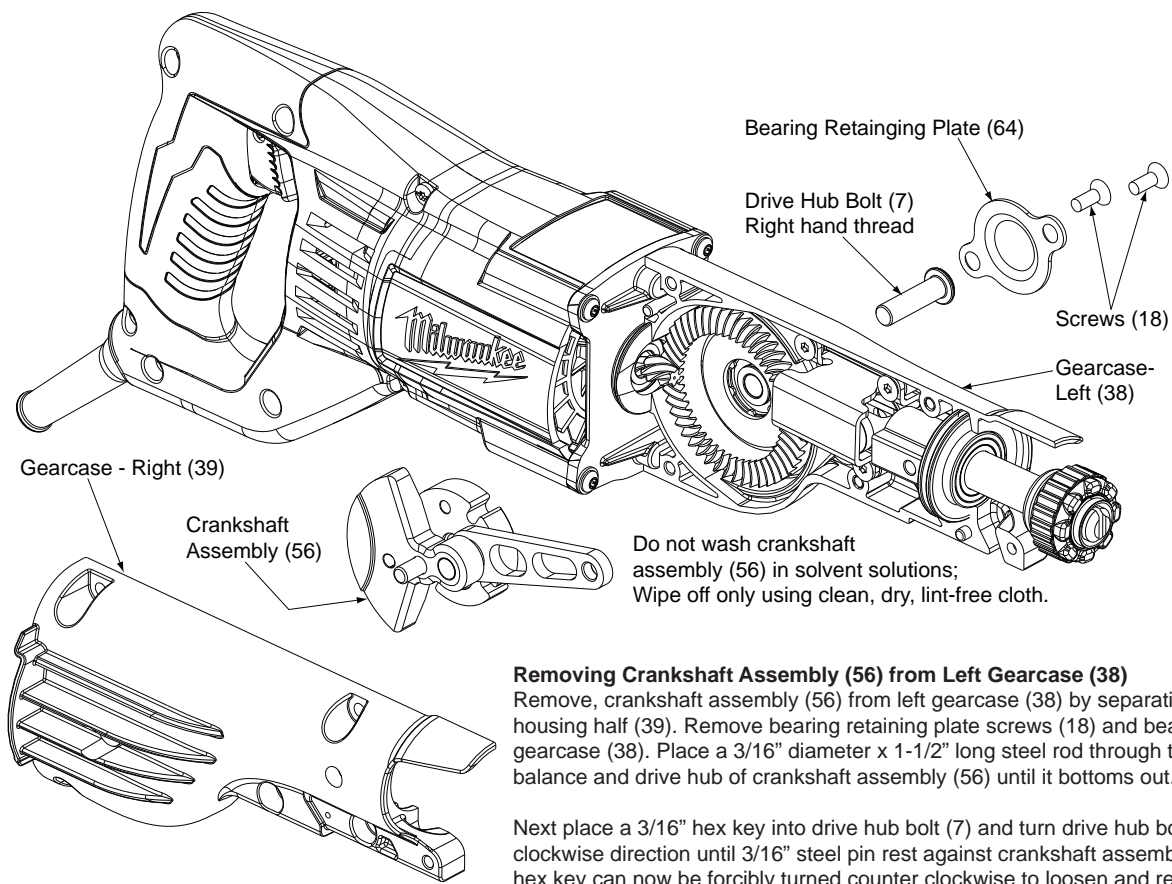


Seal
Approx. .020-.025 above gearcase bore
Ball bearing (3)
Gearcase stop



Seal of ball bearing (1) towards commutator on armature (23).

Install bearing plate (65) with wording 'fan side' facing towards armature fan (24).



Removing Crankshaft Assembly (56) from Left Gearcase (38)

Remove crankshaft assembly (56) from left gearcase (38) by separating / removing right housing half (39). Remove bearing retaining plate screws (18) and bearing plate (64) from left gearcase (38). Place a 3/16" diameter x 1-1/2" long steel rod through the holes found in the counter balance and drive hub of crankshaft assembly (56) until it bottoms out.

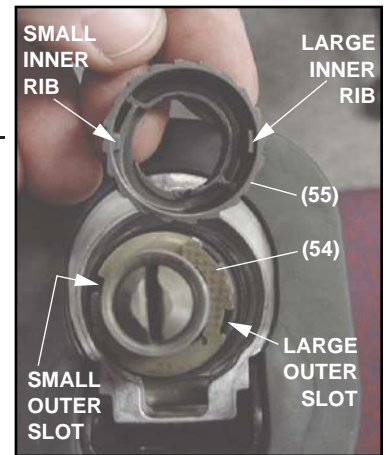
Next place a 3/16" hex key into drive hub bolt (7) and turn drive hub bolt slowly in a counter clockwise direction until 3/16" steel pin rest against crankshaft assembly connecting rod. The 3/16" hex key can now be forcibly turned counter clockwise to loosen and remove drive hub bolt (7).

Reinstalling Crankshaft Assembly (56) into Left Gearcase (38)

To reinstall drive hub bolt (7) to crankshaft assembly (56) apply Blue Loctite® (44-20-0090) to threads of drive hub bolt (7) and insert through spacer (52) aligning threads of drive hub bolt (7) with internal threads of crankshaft assembly hub. Use a 3/16" hex key to turn the drive hub bolt (7) slowly in a clockwise direction until 3/16" steel pin rest against crankshaft assembly connecting rod (See 'Removing Crankshaft Assembly' instructions above). Using an inch pound torque wrench and a 3/16" hex key, torque drive hub bolt (7) to 210-240 in. lbs. or bolt can be tightened using a ft. lbs. torque wrench to 17-20 ft. lbs.

REMOVING THE STEEL QUIK-LOK® BLADE CLAMP

- Remove external retaining ring (47) and pull front cam (55) off.
- Pull lock pin (63) out and remove remainder of parts and discard.



REASSEMBLY OF THE STEEL QUIK-LOK® BLADE CLAMP

- Coat new lock pin (63) with powdered graphite.
- Hold tool in a vertical position.
- Place spring cover (41) onto spindle.
- Slide torsion spring (50) onto spindle shaft with leg positioned at the 6:00 position.
- Slide sleeve (78) onto spindle aligning hole in 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 (63) to be inserted into sleeve/spindle holes. Insert lock pin.
- Align front cam (55) inner ribs with rear cam outer slots (*see insert*) and slide front cam onto sleeve until it bottoms. Retaining ring (47) 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.

