

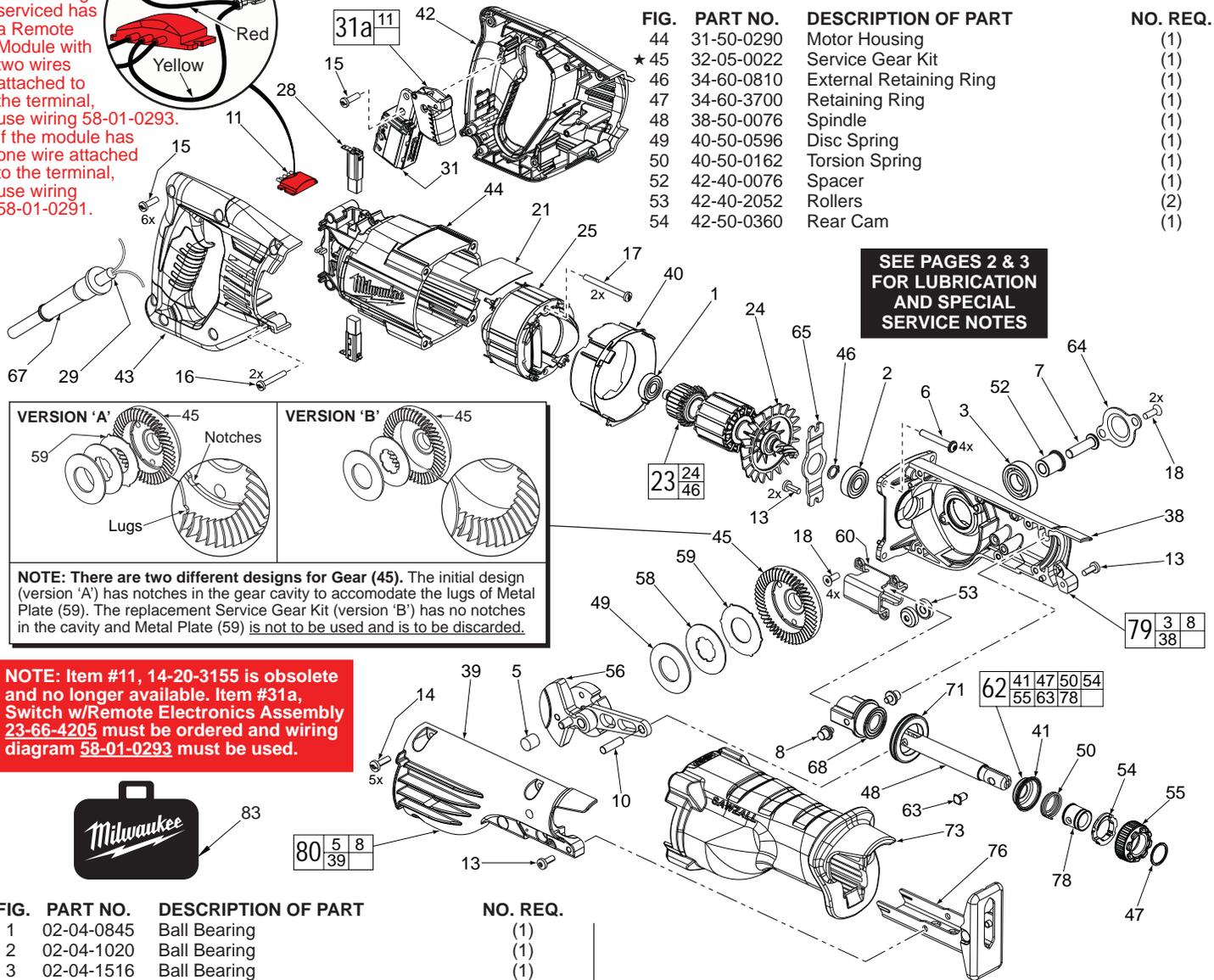
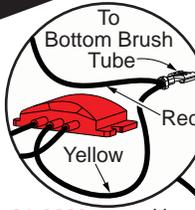


SERVICE PARTS LIST

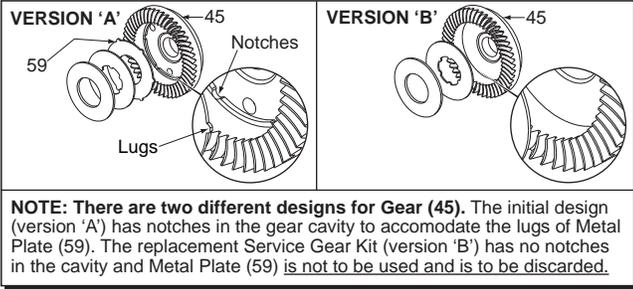
BULLETIN NO.
54-40-6521

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-40-6520	DATE Nov. 2013
SAWZALL® Reciprocating Saw			
CATALOG NO.	6509-31	STARTING SERIAL NO.	C24B
		WIRING INSTRUCTION 58-01-0291 or 58-01-0293	

If tool being serviced has a Remote Module with two wires attached to the terminal, use wiring 58-01-0293. If the module has one wire attached to the terminal, use wiring 58-01-0291.



SEE PAGES 2 & 3 FOR LUBRICATION AND SPECIAL SERVICE NOTES



* **NOTE:** Item #11, 14-20-3155 is obsolete and no longer available. Item #31a, Switch w/Remote Electronics Assembly 23-66-4205 must be ordered and wiring diagram 58-01-0293 must be used.



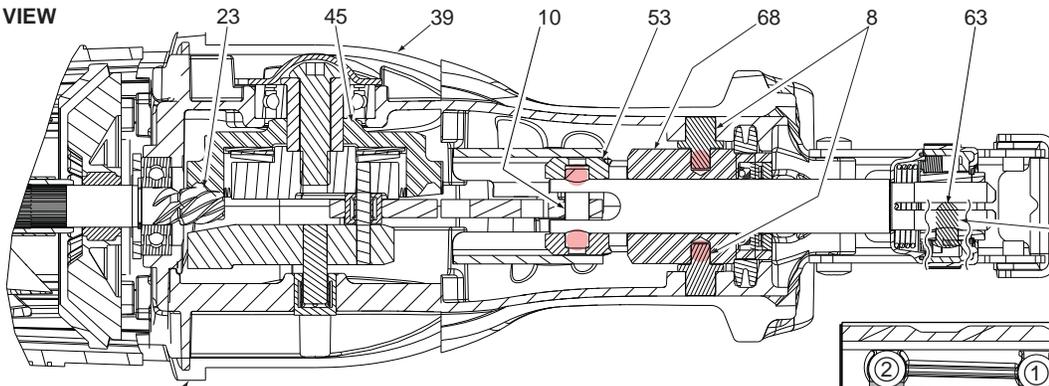
FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	02-04-0845	Ball Bearing	(1)
2	02-04-1020	Ball Bearing	(1)
3	02-04-1516	Ball Bearing	(1)
5	02-50-1640	Needle Bearing	(1)
6	05-88-8309	K50 x 35mm Washer Hd. PT T-20 Screw	(4)
7	06-08-0017	Drive Hub Bolt (R.H. Thread)	(1)
8	06-65-0135	Pivot Pin	(2)
10	06-65-0145	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)
31a	23-66-4205	Switch/Remote Electronics Assy. (Not Shown)	(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)

★ = Part number change from previous service parts list.

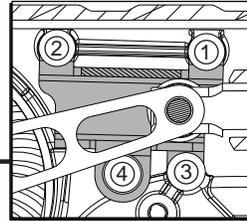
FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
55	42-50-0355	Front Cam	(1)
56	14-09-0195	Crankshaft Assembly	(1)
58	43-06-0025	Metal Plate	(1)
59	43-06-0030	Metal Plate (Version 'A' only, see detail)	(1)
60	43-56-0045	Orbit Slot	(1)
62	14-46-1060	Quik-Lok Blade Clamp Kit	(1)
63	44-60-1750	Lock Pin	(1)
64	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
13135 W. Lisbon Road, Brookfield, WI 53005
Drwg. 5

TOP VIEW

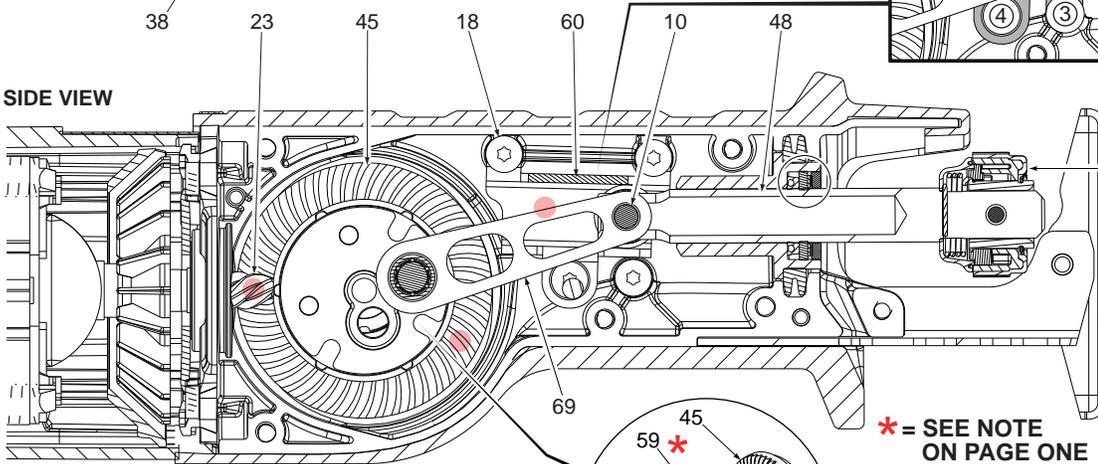


Pin (63) is to be coated with graphite prior to assembly.



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

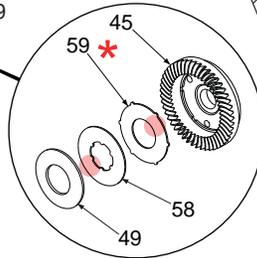
SIDE VIEW



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

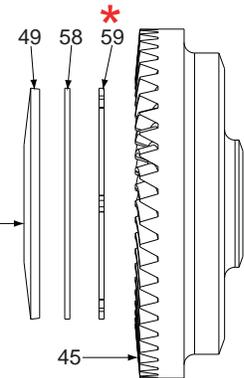
LUBRICATION: Type 'L' Grease No. 49-08-4175 (16 oz. tub)

- 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).

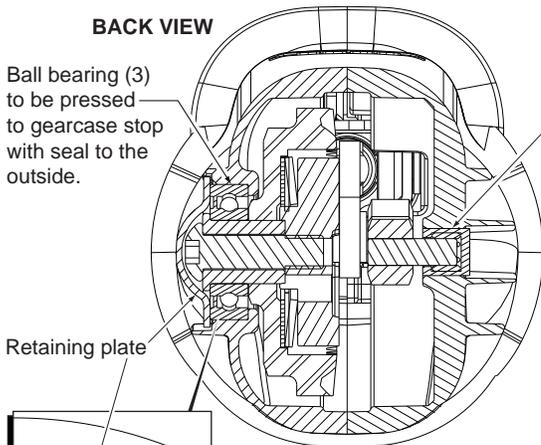


*** = SEE NOTE ON PAGE ONE**

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



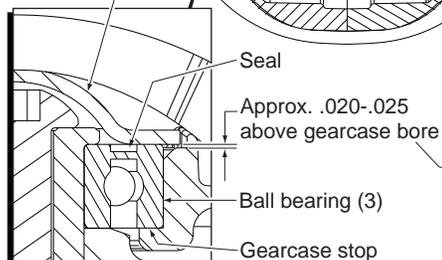
BACK VIEW



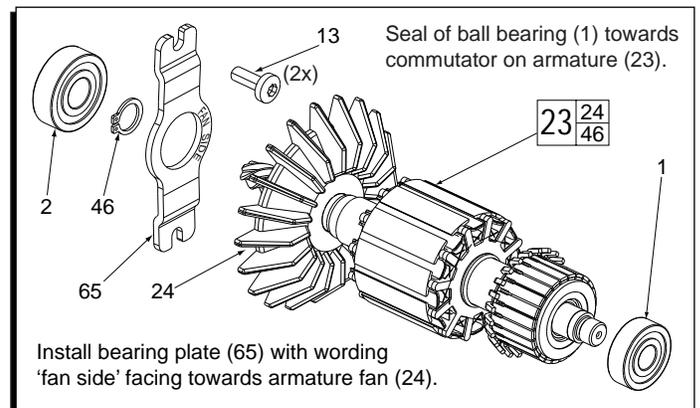
Ball bearing (3) to be pressed to gearcase stop with seal to the outside.

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

Retaining plate

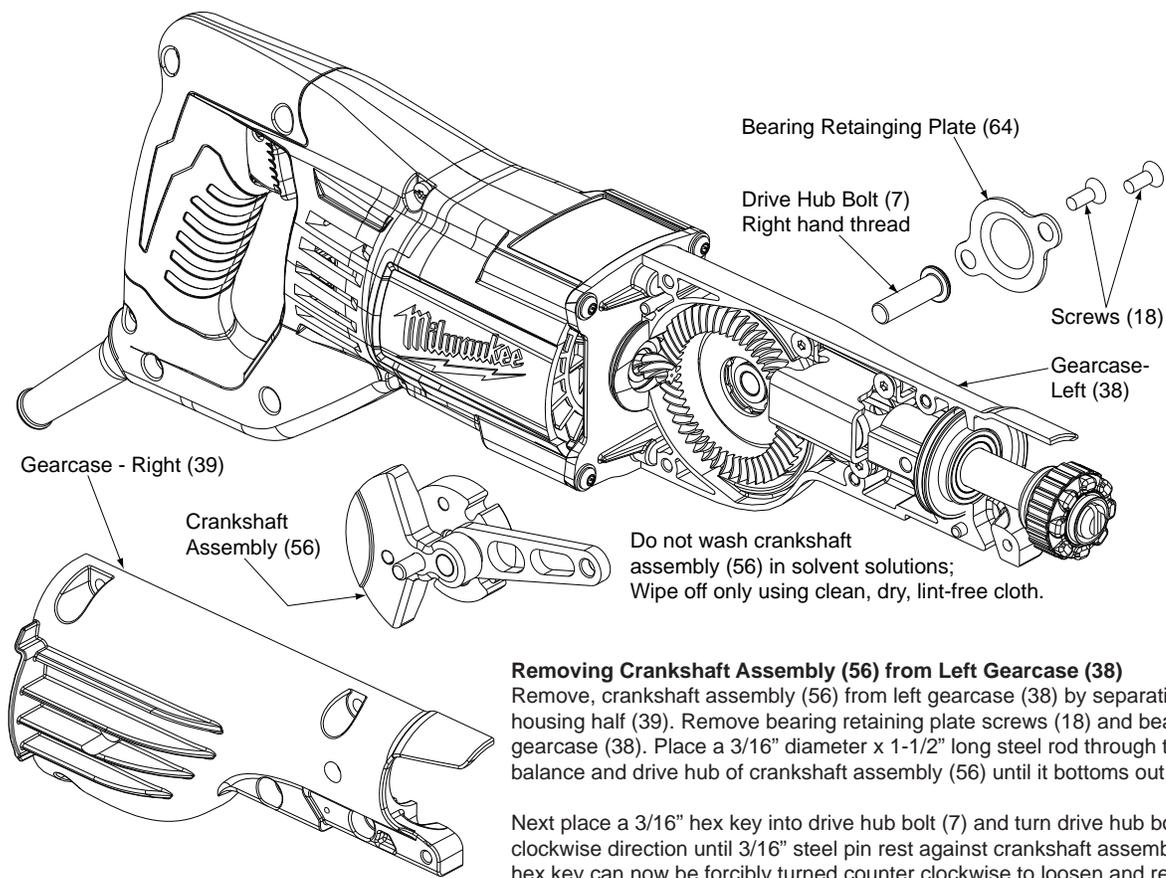


Seal
Approx. .020-.025 above gearcase bore
Ball bearing (3)
Gearcase stop



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.

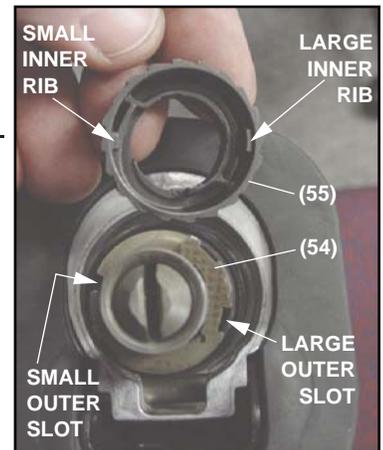
Next place a 3/16" hex key into drive hub bolt (7) and turn drive hub bolt slowly in a counter clockwise direction until 3/16" steel pin rest against crankshaft assembly connecting rod. The 3/16" hex key can now be forcibly turned counter clockwise to loosen and remove drive hub bolt (7).

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.

