



SERVICE PARTS LIST

BULLETIN NO.
54-40-2670

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
M18™ SAWZALL® Reciprocating Saw			Feb. 2017
CATALOG NO.	2621-20	STARTING SERIAL NO.	G09A
		WIRING INSTRUCTION SEE PAGE 4	

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

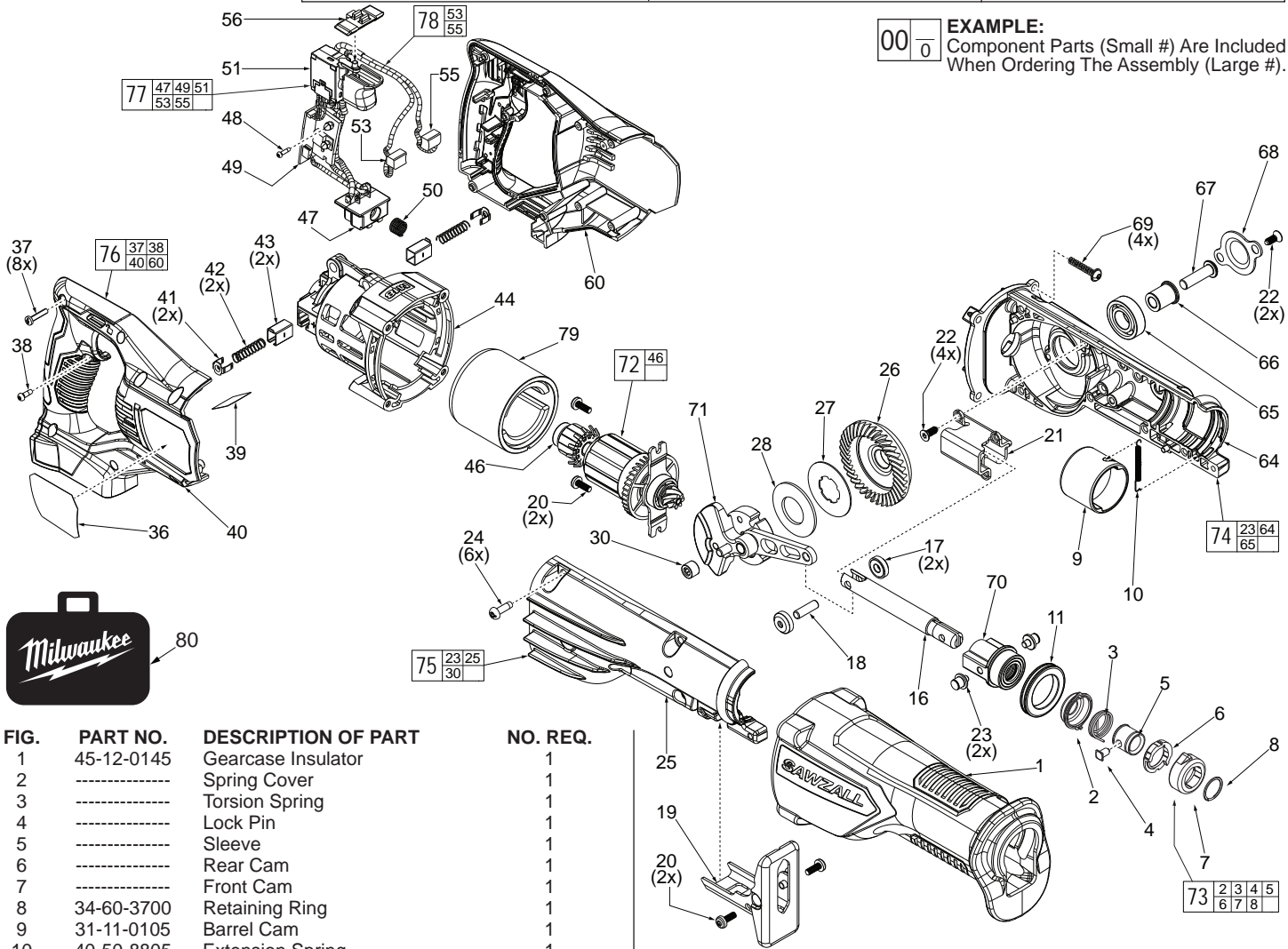
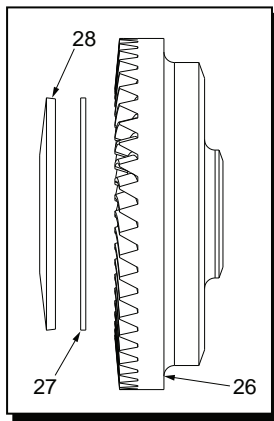
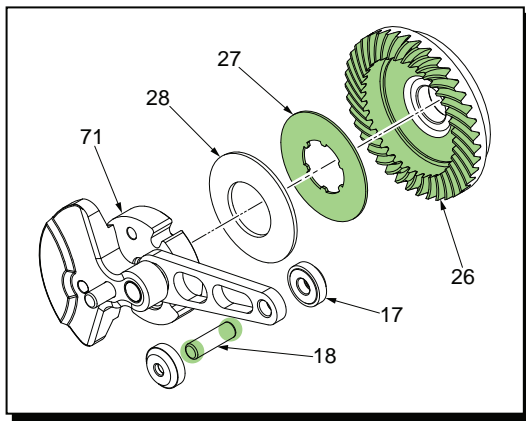


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	45-12-0145	Gearcase Insulator	1
2	-----	Spring Cover	1
3	-----	Torsion Spring	1
4	-----	Lock Pin	1
5	-----	Sleeve	1
6	-----	Rear Cam	1
7	-----	Front Cam	1
8	34-60-3700	Retaining Ring	1
9	31-11-0105	Barrel Cam	1
10	40-50-8805	Extension Spring	1
11	45-06-0230	'H' Orbit Seal	1
16	38-50-0076	Spindle	1
17	42-40-2052	Rollers	2
18	06-65-0145	Pin - Connecting Rod	1
19	45-16-0125	Shoe Assembly	1
20	06-82-5324	10-24 x 1/2" Pan Hd. Tapt. T-25 Screw	4
21	43-56-0045	Orbit Slot	1
22	06-82-8890	1/2-DG50 Thread Form T-25 Screw	6
23	06-65-0135	Pivot Pin	2
24	06-82-5411	10-24 x .625 Pan Hd. Tapt. T-25 Screw	6
25	-----	Gearcase - Right	1
26	32-05-0105	Bevel Gear	1
27	43-06-0025	Metal Plate	1
28	40-50-0595	Disc Spring	1
30	02-50-1611	Needle Bearing	1
36	12-20-0047	Service Nameplate	1
37	06-82-7261	6-19 x 16mm Pan Hd. Plast. T-15 Scr	8
38	05-88-1610	M3.5 x 10 Pan Hd. Plastite T-10 Screw	1
39	10-15-0955	Warning Label	1
40	-----	Right Handle Half	1
41	22-32-0400	Brush Spring Clip	2
42	40-50-8840	Brush Spring	2
43	22-20-0860	Brush Tube	2
44	31-50-0037	Motor Housing	1
46	02-04-0645	Ball Bearing	1
47	-----	Battery Connector Block	1
48	06-82-2395	M2.6 x 10mm Pan Hd. Tapt. T-8 Screw	1
49	-----	PCBA	1
50	40-50-1090	Connector Block Spring	1

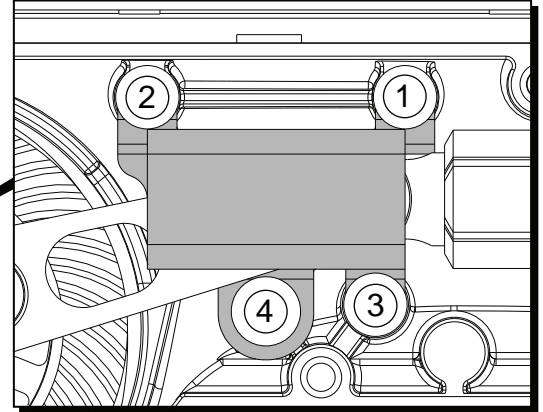
FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
51	-----	On-Off Switch	1
53	-----	Carbon Brush - Red	1
55	-----	Carbon Brush - Black	1
56	42-42-0092	Lockoff Shuttle	1
60	-----	Left Handle Half	1
64	-----	Gearcase Assy. - Left w/ Locating Pins	1
65	02-04-1516	Ball Bearing	1
66	42-40-0076	Spacer	1
67	06-08-0019	Drive Hub Bolt (Left Hand Thread)	1
68	44-66-0280	Bearing Retaining Plate	1
69	05-88-8309	M5 x 35mm Pan Hd. Tapt. T-20 Screw	4
70	44-86-0052	Spindle Bushing Assembly	1
71	14-09-1000	Crankshaft Assembly	1
72	16-01-2622	Armature Assembly	1
73	14-46-1064	Quik-Lok® Blade Clamp Assembly	1
74	14-30-0062	Gearcase Assembly - Left	1
75	14-30-0072	Gearcase Assembly - Right	1
76	14-34-0132	Handle Assembly	1
77	14-20-0147	Electronics Assembly	1
78	22-18-0082	Carbon Brush Assembly (Set of 2)	1
79	18-01-2622	Field Assembly	1
80	42-55-2621	Carrying Case	1

SEE ADDITIONAL SERVICE NOTES ON FOLLOWING PAGES



Concave side of disc spring (28) must face toward metal plate (27) and bevel gear (26).

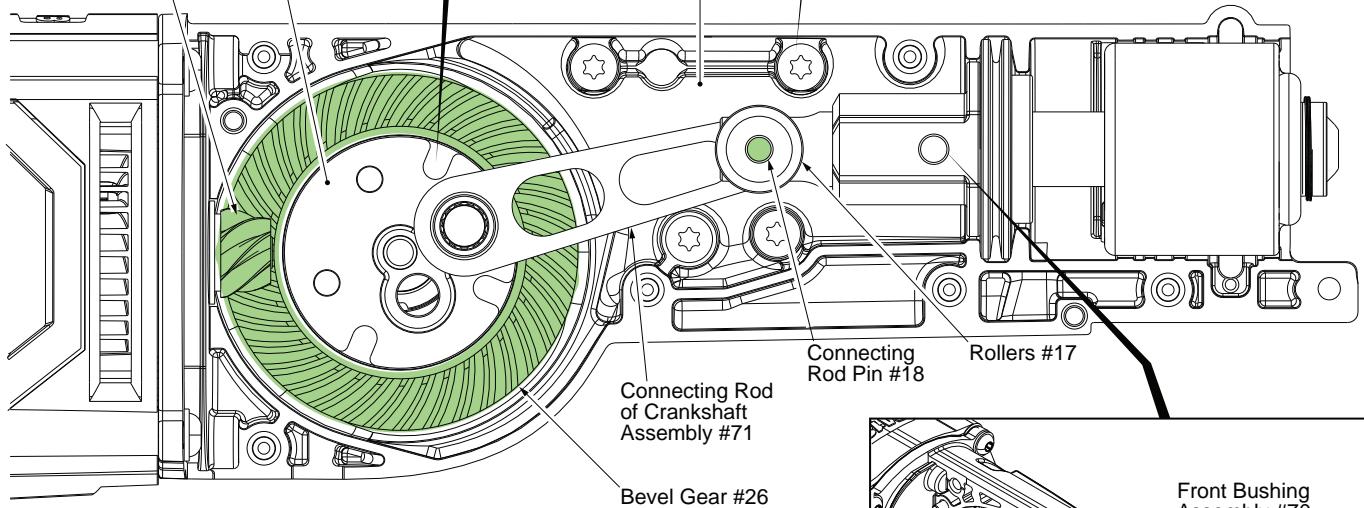
When securing the orbit slot (21), tighten screws (22) in the order shown.



Pinion Gear of Armature Assy. #72

NOTE: Counter Weight of Crankshaft Assembly #71 has been removed for clarity (to reveal pinion gear)

NOTE: Orbit Slot #21 has been removed from this view for clarity (to reveal Connecting Rod Pin #18 and Rollers #17)



Connecting Rod of Crankshaft Assembly #71

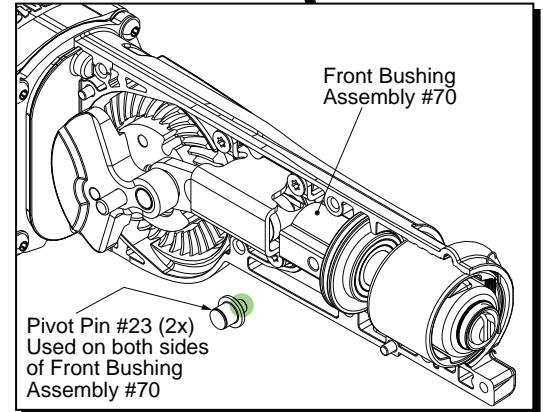
Rollers #17

Connecting Rod of Crankshaft Assembly #71

Bevel Gear #26

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

- Place 30g ±3g (approx. 1 ounce) on top of gear (26) and pinion gear of armature assembly (72), being sure to cover the middle of the gear and all teeth.
- Place 15g ±3g (approx. .5 ounce) to the area where the gear (26) and the connecting rod of crank shaft assembly (72) interface.
- Coat both sides of the metal clutch plate (27).
- Lightly coat both pivot pins (23) where connections go into holes of front bushing assembly (70).
- Lightly coat both ends of pin (18) prior to installing rollers (17).



Front Bushing Assembly #70

Pivot Pin #23 (2x)
Used on both sides of Front Bushing Assembly #70

BACK VIEW

Ball bearing (65) to be pressed to gearcase stop with seal to the outside.

Press needle bearing (30) flush to subflush .005".

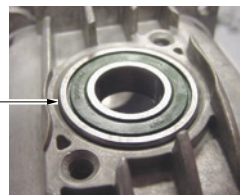
Retaining Plate (68)

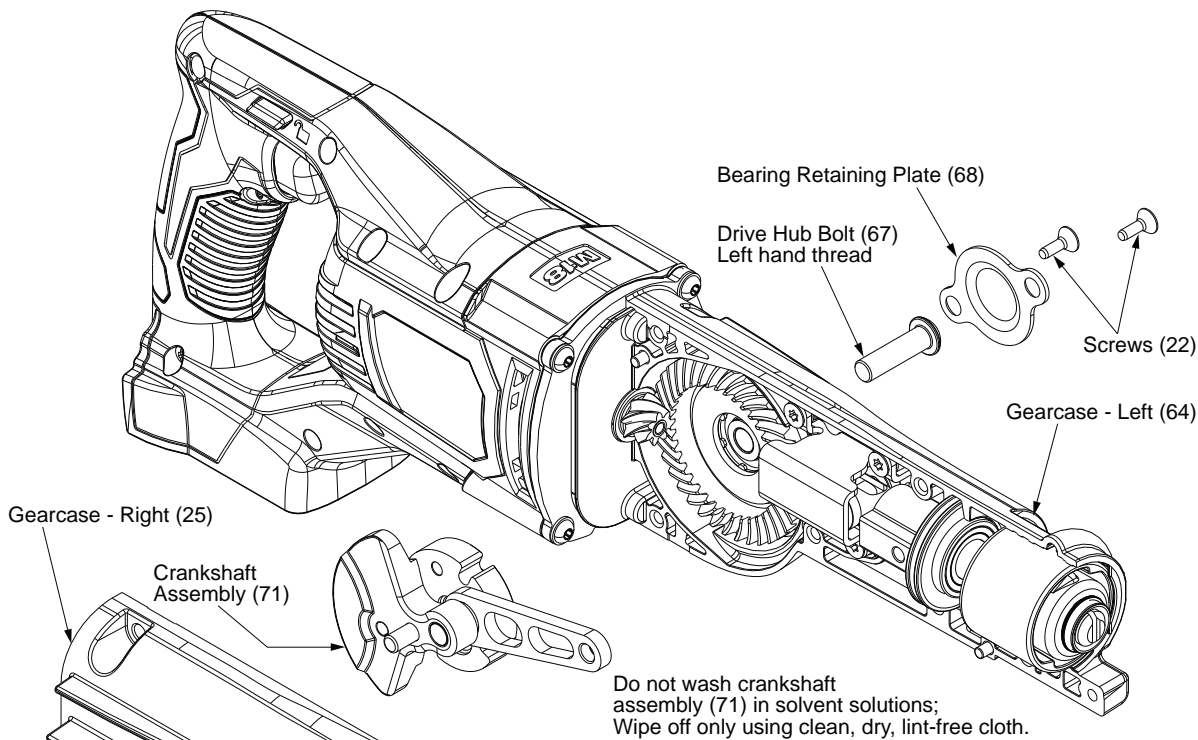
Seal

Gearcase stop

Approximately .020-.025 above gearcase bore

Ball bearing (65)





Do not wash crankshaft assembly (71) in solvent solutions; Wipe off only using clean, dry, lint-free cloth.

Removing Crankshaft Assembly (71) from Left Gearcase (64)

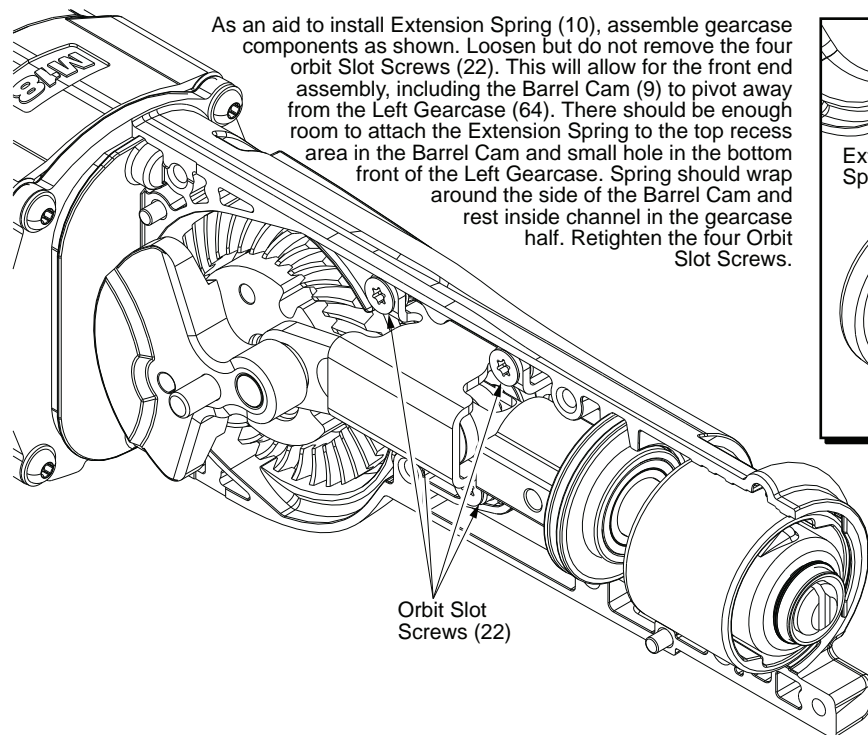
Remove, crankshaft assembly (71) from left gearcase (64) by separating / removing right gearcase half (25). Remove bearing retaining plate screws (22) and bearing plate (68) from left gearcase (64). Place a 3/16" diameter x 1-1/2" long steel rod through the holes found in counter balance and drive hub of crankshaft assembly (71) until it bottoms out.

Reinstalling Crankshaft

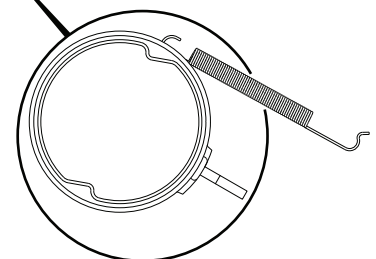
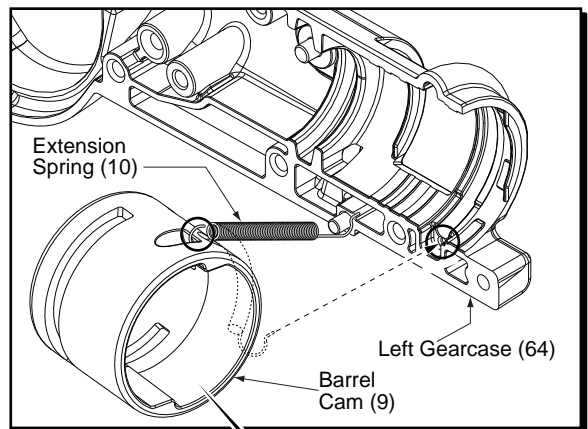
Assembly (71) into Left Gearcase (64)

To reinstall drive hub bolt (67) to crankshaft assembly (71) apply Blue Loctite® (44-20-0090) to threads of drive hub bolt (67) and insert through spacer (66) aligning threads of drive hub bolt (67) with internal threads of crankshaft assembly hub. Use a 3/16" hex key to turn the drive hub bolt (67) slowly in a counter 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 (67) to 210-240 in. lbs. or bolt can be tightened using a ft. lbs. torque wrench to 17-20 ft. lbs.

Next place a 3/16" hex key into drive hub bolt (67) and turn drive hub bolt slowly in a clockwise direction until 3/16" steel pin rest against crankshaft assembly connecting rod. The 3/16" hex key can now be forcibly turned clockwise to loosen and remove drive hub bolt (67).



As an aid to install Extension Spring (10), assemble gearcase components as shown. Loosen but do not remove the four orbit Slot Screws (22). This will allow for the front end assembly, including the Barrel Cam (9) to pivot away from the Left Gearcase (64). There should be enough room to attach the Extension Spring to the top recess area in the Barrel Cam and small hole in the bottom front of the Left Gearcase. Spring should wrap around the side of the Barrel Cam and rest inside channel in the gearcase half. Retighten the four Orbit Slot Screws.

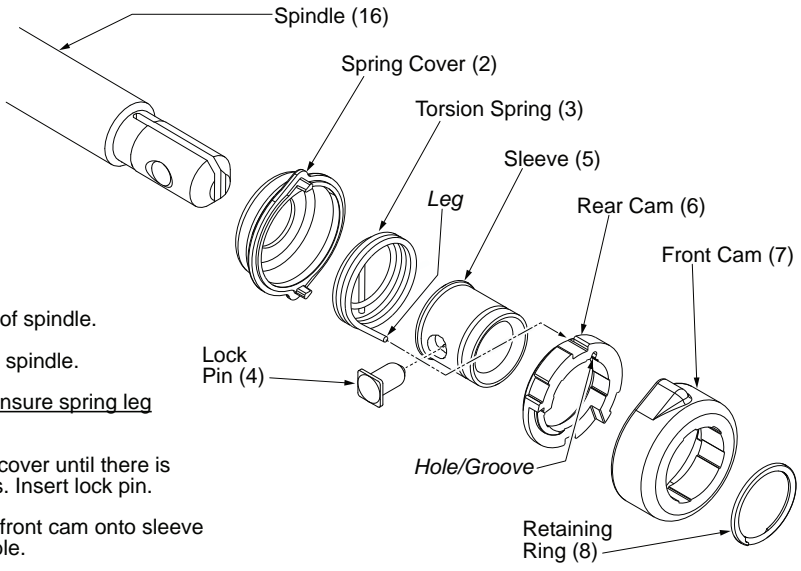


REMOVING THE STEEL QUIK-LOK® BLADE CLAMP -

- Remove external retaining ring (8) and pull front cam (7) off.
- Pull lock pin (4) 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 onto spindle.
- Slide torsion spring (3) onto spindle with spring leg on hole side of spindle.
- Slide sleeve (5) onto spindle aligning hole on sleeve with hole in spindle.
- Slide rear cam over sleeve until it bottoms on sleeve shoulder, ensure spring leg inserts into groove of cam.
- Rotate rear cam in the direction of the arrows located on spring cover until there is clearance for lock pin (4) to be inserted into sleeve/spindle holes. Insert lock pin.
- Align front cam (7) inner ribs with rear cam outer slots and slide front cam onto sleeve until it bottoms. Retaining ring groove should be completely visible.
- Attach retaining ring (8) by separating coils, inserting end of ring into groove. 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.



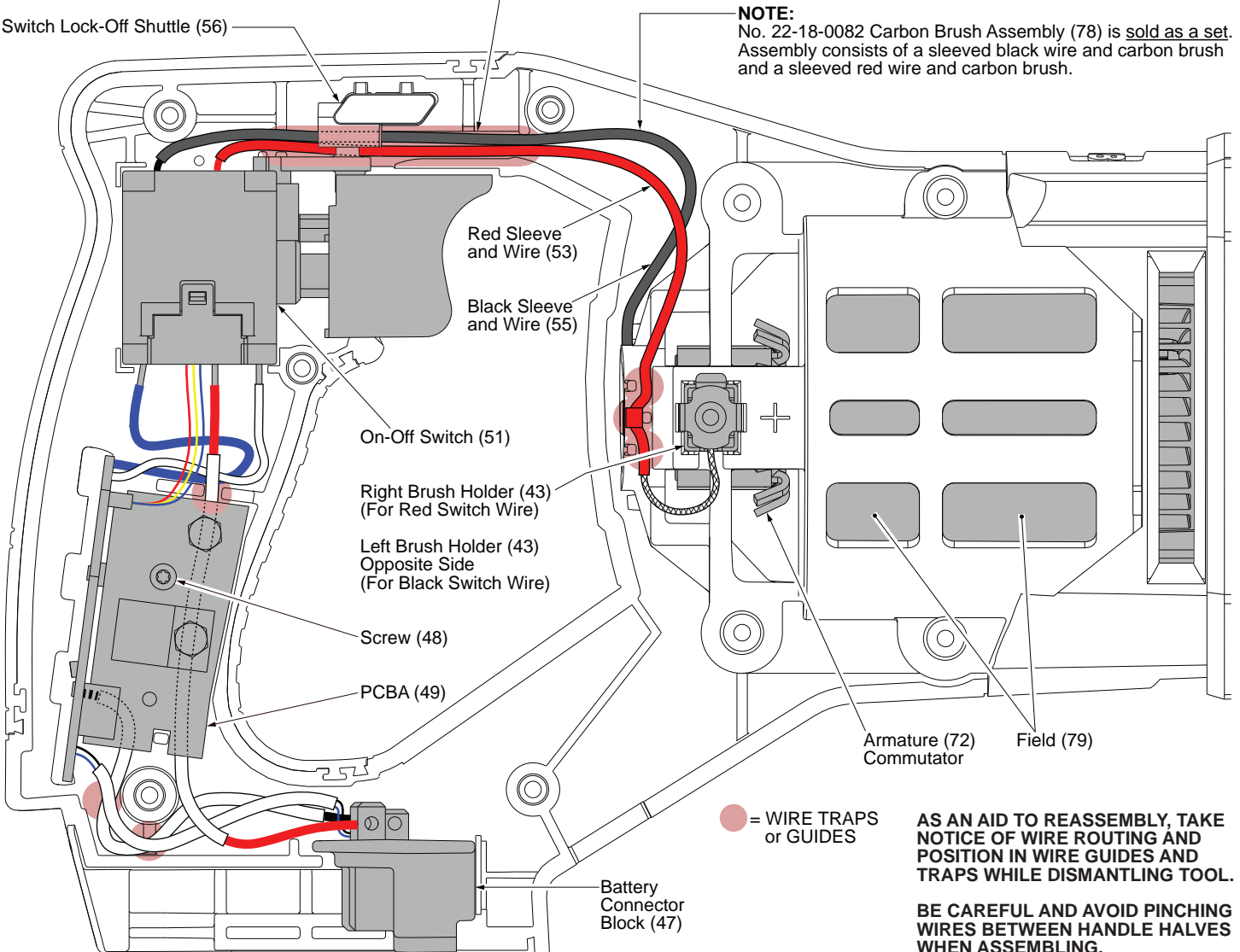
WIRING DIAGRAM

Route these sleeved wires in the handle channel above the switch. Place the Switch Lock-Off Shuttle over the wire assemblies.

Switch Lock-Off Shuttle (56)

NOTE:

No. 22-18-0082 Carbon Brush Assembly (78) is sold as a set. Assembly consists of a sleeved black wire and carbon brush and a sleeved red wire and carbon brush.



● = WIRE TRAPS or GUIDES

AS AN AID TO REASSEMBLY, TAKE NOTICE OF WIRE ROUTING AND POSITION IN WIRE GUIDES AND TRAPS WHILE DISMANTLING TOOL.

BE CAREFUL AND AVOID PINCHING WIRES BETWEEN HANDLE HALVES WHEN ASSEMBLING.



SERVICE PARTS LIST

BULLETIN NO.
54-40-2671

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
M18™ SAWZALL® Reciprocating Saw		54-40-2670	Feb. 2017
CATALOG NO.	2621-20	WIRING INSTRUCTION	
	STARTING SERIAL NO.	SEE PAGE 4	
	G09B		

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

★ = Part number change from
previous service parts list.

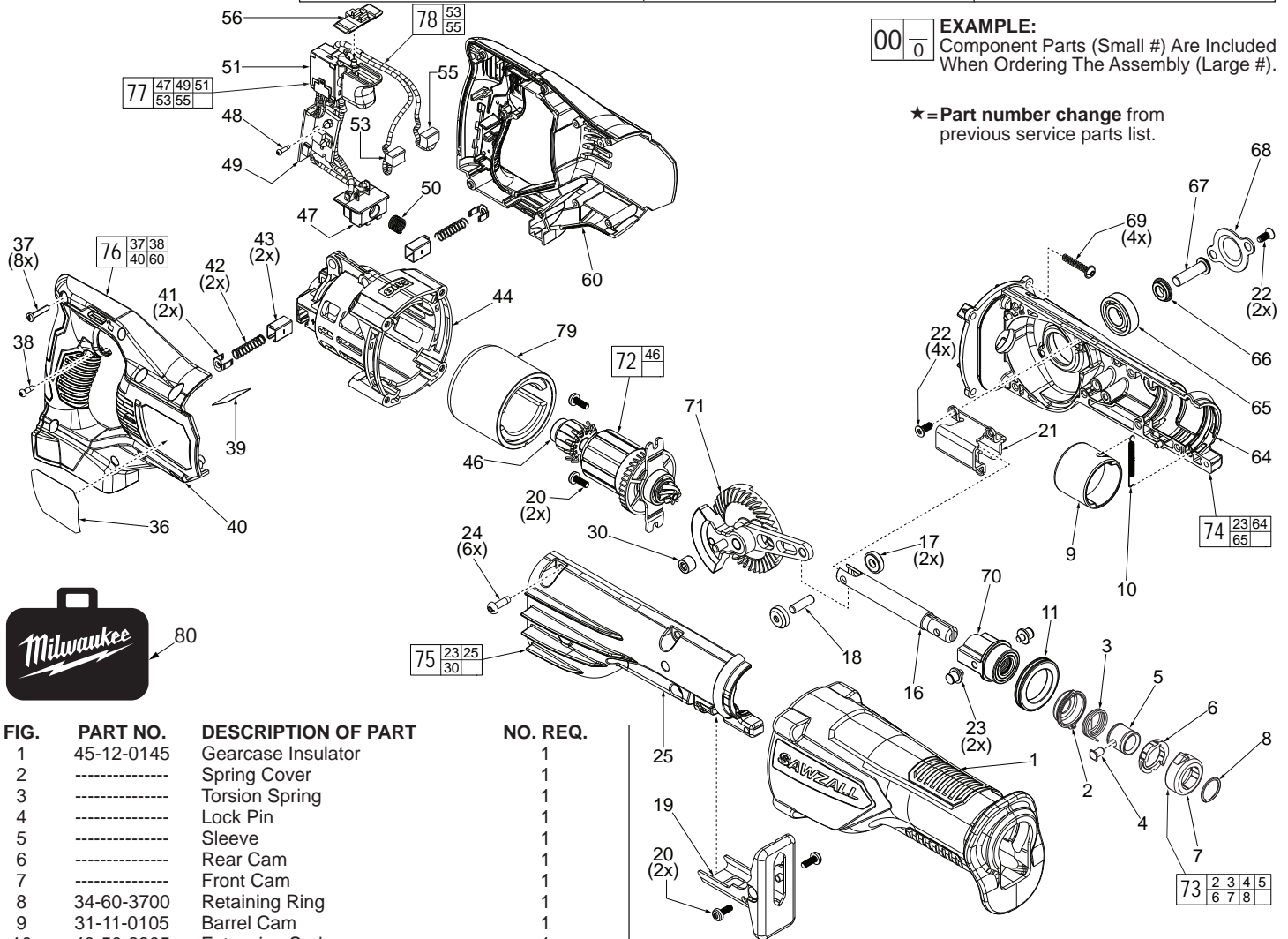
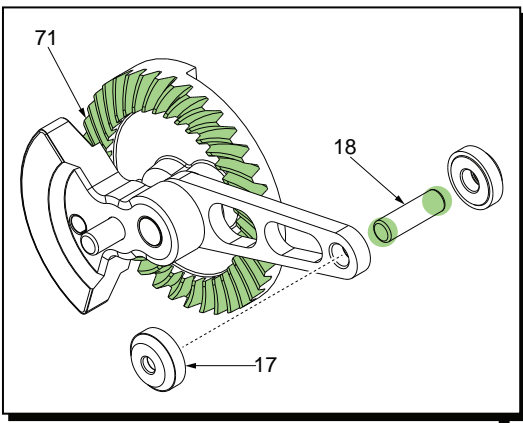


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	45-12-0145	Gearcase Insulator	1
2	-----	Spring Cover	1
3	-----	Torsion Spring	1
4	-----	Lock Pin	1
5	-----	Sleeve	1
6	-----	Rear Cam	1
7	-----	Front Cam	1
8	34-60-3700	Retaining Ring	1
9	31-11-0105	Barrel Cam	1
10	40-50-8805	Extension Spring	1
11	45-06-0230	'H' Orbit Seal	1
16	38-50-0076	Spindle	1
17	42-40-2052	Rollers	2
18	06-65-0145	Pin - Connecting Rod	1
19	45-16-0125	Shoe Assembly	1
20	06-82-5324	10-24 x 1/2" Pan Hd. Tapt. T-25 Screw	4
21	43-56-0045	Orbit Slot	1
★22	06-82-8890	DG50 x 1.22 x 12.7 T-25 Screw	6
23	06-65-0135	Pivot Pin	2
24	06-82-5411	10-24 x .625 Pan Hd. Tapt. T-25 Screw	6
25	-----	Gearcase - Right	1
30	02-50-1611	Needle Bearing	1
36	12-20-0047	Service Nameplate	1
37	06-82-7261	6-19 x 16mm Pan Hd. Plast. T-15 Scr	8
38	05-88-1610	M3.5 x 10 Pan Hd. Plastite T-10 Screw	1
39	10-15-0955	Warning Label	1
40	-----	Right Handle Halve	1
41	22-32-0400	Brush Spring Clip	2
42	40-50-8840	Brush Spring	2
43	22-20-0860	Brush Tube	2
44	31-50-0037	Motor Housing	1
46	02-04-0645	Ball Bearing	1
47	-----	Battery Connector Block	1
48	06-82-2395	M2.6 x 10mm Pan Hd. Tapt. T-8 Screw	1
49	-----	PCBA	1
50	40-50-1090	Connector Block Spring	1
51	-----	On-Off Switch	1
53	-----	Carbon Brush - Red	1
55	-----	Carbon Brush - Black	1

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
56	42-42-0092	Lockoff Shuttle	1
60	-----	Left Handle Halve	1
64	-----	Gearcase Assy. - Left w/ Locating Pins	1
65	02-04-1516	Ball Bearing	1
★66	42-40-0078	Spacer	1
67	06-08-0019	Drive Hub Bolt (Left Hand Thread)	1
68	44-66-0288	Bearing Retaining Plate	1
69	05-88-8309	M5 x 35mm Pan Hd. Tapt. T-20 Screw	4
70	44-86-0052	Spindle Bushing Assembly	1
★71	14-09-1005	Crankshaft Assembly	1
72	16-01-2622	Armature Assembly	1
73	14-46-1064	Quik-Lok® Blade Clamp Assembly	1
74	14-30-0062	Gearcase Assembly - Left	1
75	14-30-0072	Gearcase Assembly - Right	1
76	14-34-0132	Handle Assembly	1
77	14-20-0147	Electronics Assembly	1
78	22-18-0082	Carbon Brush Assembly (Set of 2)	1
79	18-01-2622	Field Assembly	1
80	42-55-2621	Carrying Case	1

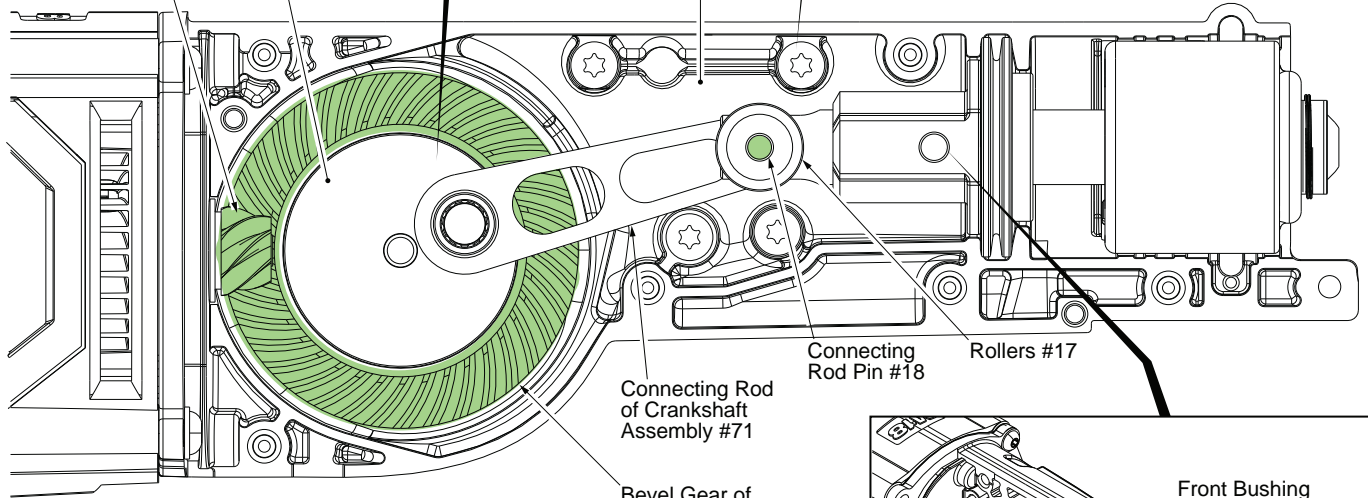
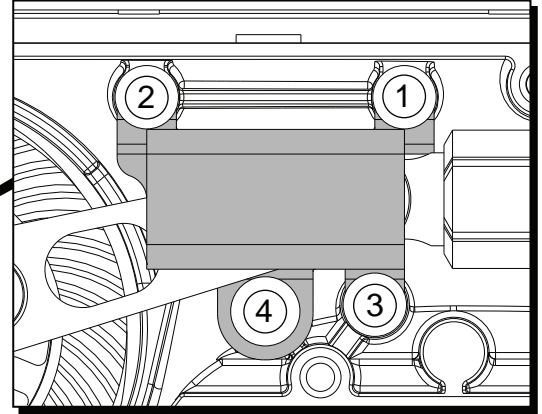


Pinion Gear of Armature Assy. #72

NOTE: Counter Weight of Crankshaft Assembly #71 has been removed for clarity (to reveal pinion gear)

NOTE: Orbit Slot #21 has been removed from this view for clarity (to reveal Connecting Rod Pin #18 and Rollers #17)

When securing the orbit slot (21), tighten screws (22) in the order shown.



Connecting Rod of Crankshaft Assembly #71

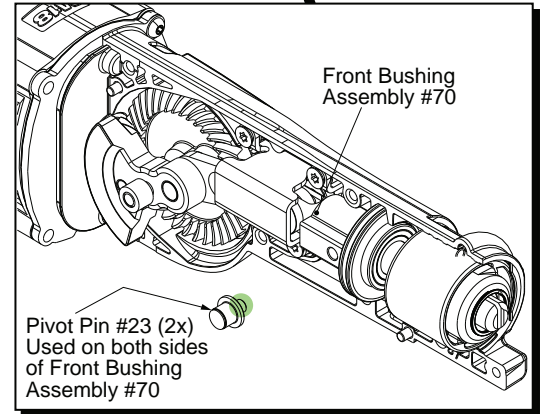
Bevel Gear of Crankshaft Assembly #71

Connecting Rod Pin #18

Rollers #17

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

- Place 30g ±3g (approx. 1 ounce) on top of bevel gear of Crankshaft Assembly (71) and pinion gear of armature assembly (72), being sure to cover the middle of the gear and all teeth.
- Place 15g ±3g (approx. .5 ounce) to the area where the bevel gear and connecting rod of crankshaft assembly (71) interface.
- Lightly coat both pivot pins (23) where connections go into holes of front bushing assembly (70).
- Lightly coat both ends of pin (18) prior to installing rollers (17).



Front Bushing Assembly #70

Pivot Pin #23 (2x) Used on both sides of Front Bushing Assembly #70

BACK VIEW

Ball bearing (65) to be pressed to gearcase stop with seal to the outside.

Press needle bearing (30) flush to subflush .005".

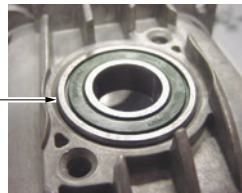
Retaining Plate (68)

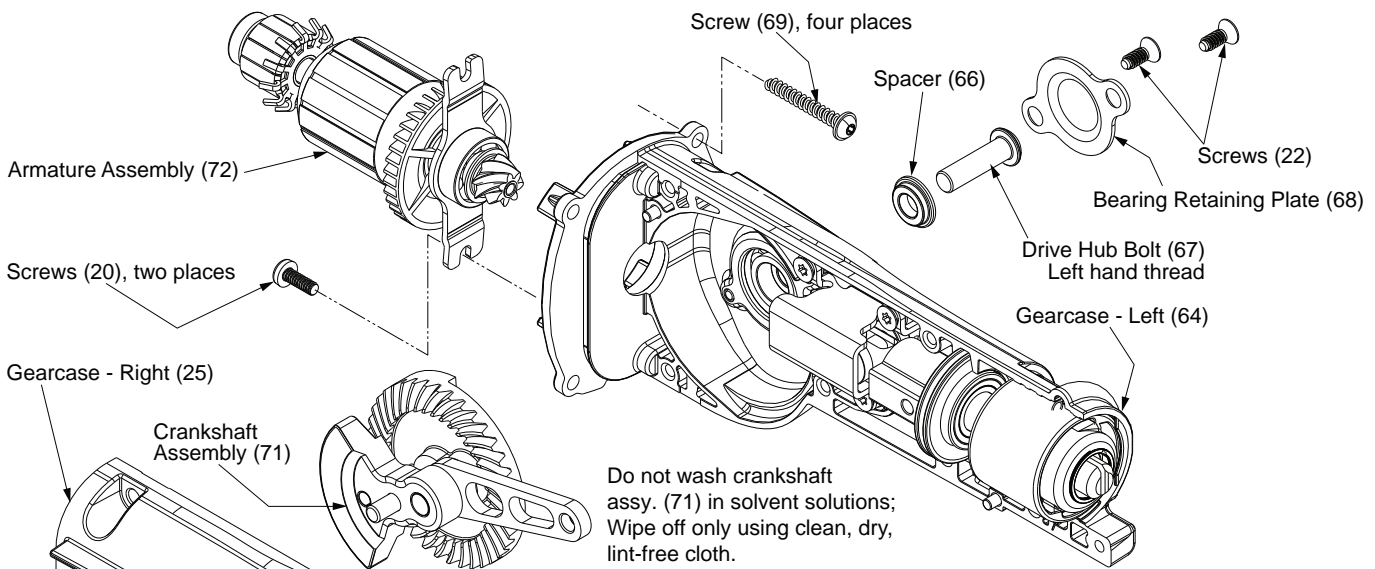
Seal

Gearcase stop

Approximately .020-.025 above gearcase bore

Ball bearing (65)





Do not wash crankshaft assy. (71) in solvent solutions; Wipe off only using clean, dry, lint-free cloth.

Removing Crankshaft Assembly (71) from Left Gearcase (64)

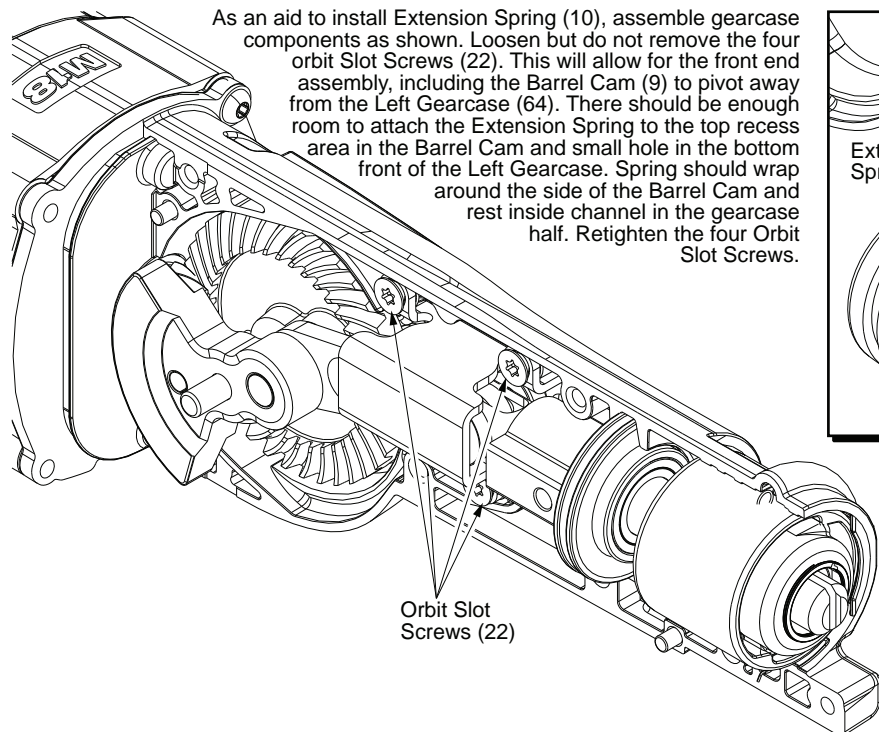
Loosen all handle screws (37, 38) and separate the handle halves. Remove brush assembly components (41, 42, 43) from motor housing. Loosen screws (69) connecting gear case and motor housing. Pull apart the front gearcase assembly from the motor housing. Next, two screws (20) must be removed from the left gearcase (64) in order to remove the armature assembly (72).

Reinstalling Crankshaft Assembly (71) into Left Gearcase (64)

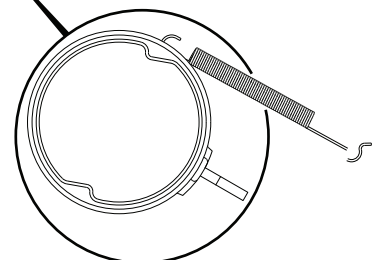
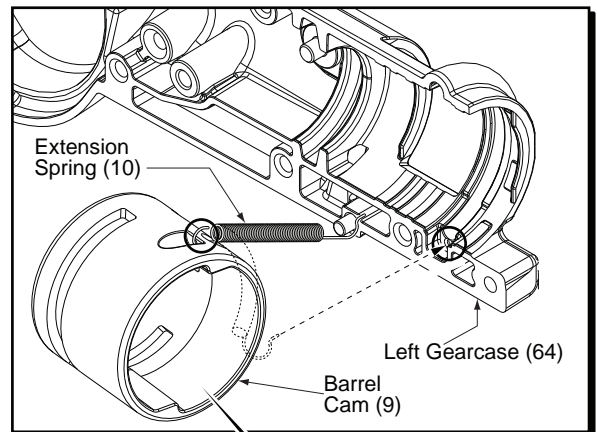
To reinstall drive hub bolt (67) to crankshaft assembly (71) apply Blue Loctite® (44-20-0090) to threads above spacer (66) aligning threads of drive hub bolt (67) with internal threads of crankshaft assembly hub. Use a T-40 torx drive to turn the drive hub bolt (67) slowly in a counter clockwise direction 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 T-40 torx drive, torque drive hub bolt (67) to 65-75 in. lbs.

Remove, crankshaft assembly (71) from left gearcase (64) by separating / removing right gearcase half (25). Remove bearing retaining plate screws (22) and bearing plate (68) from left gearcase (64). Place a 3/16" diameter x 1-1/2" long steel rod through the holes found in counter balance and drive hub of crankshaft assembly (71) until it bottoms out.

Next place a T-40 torx drive into drive hub bolt (67) and turn drive hub bolt slowly in a clockwise direction until 3/16" steel pin rest against crankshaft assembly connecting rod. The T-40 torx drive can now be forcibly turned clockwise to loosen and remove drive hub bolt (67).



As an aid to install Extension Spring (10), assemble gearcase components as shown. Loosen but do not remove the four orbit Slot Screws (22). This will allow for the front end assembly, including the Barrel Cam (9) to pivot away from the Left Gearcase (64). There should be enough room to attach the Extension Spring to the top recess area in the Barrel Cam and small hole in the bottom front of the Left Gearcase. Spring should wrap around the side of the Barrel Cam and rest inside channel in the gearcase half. Retighten the four Orbit Slot Screws.

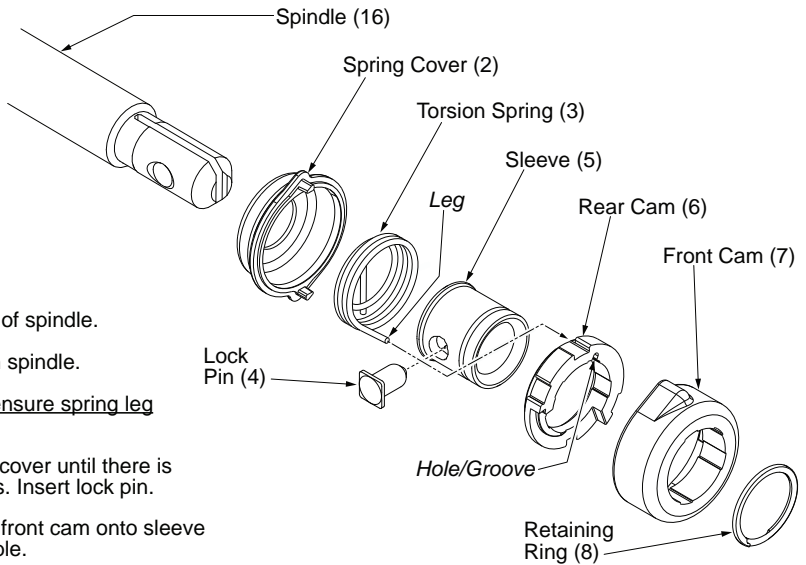


REMOVING THE STEEL QUIK-LOK® BLADE CLAMP -

- Remove external retaining ring (8) and pull front cam (7) off.
- Pull lock pin (4) 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 onto spindle.
- Slide torsion spring (3) onto spindle with spring leg on hole side of spindle.
- Slide sleeve (5) onto spindle aligning hole on sleeve with hole in spindle.
- Slide rear cam over sleeve until it bottoms on sleeve shoulder, ensure spring leg inserts into groove of cam.
- Rotate rear cam in the direction of the arrows located on spring cover until there is clearance for lock pin (4) to be inserted into sleeve/spindle holes. Insert lock pin.
- Align front cam (7) inner ribs with rear cam outer slots and slide front cam onto sleeve until it bottoms. Retaining ring groove should be completely visible.
- Attach retaining ring (8) by separating coils, inserting end of ring into groove. 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.



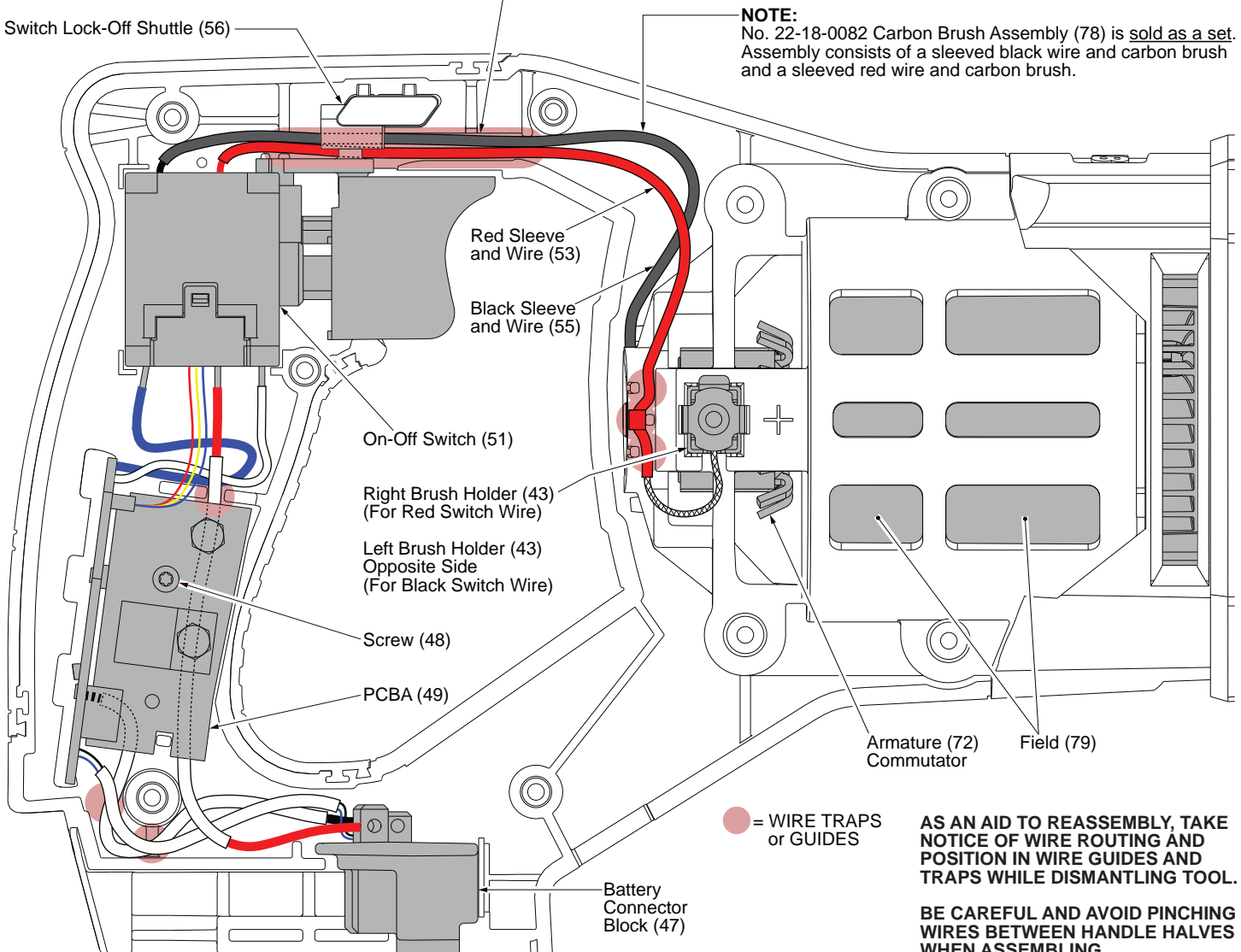
WIRING DIAGRAM

Route these sleeved wires in the handle channel above the switch. Place the Switch Lock-Off Shuttle over the wire assemblies.

Switch Lock-Off Shuttle (56)

NOTE:

No. 22-18-0082 Carbon Brush Assembly (78) is sold as a set. Assembly consists of a sleeved black wire and carbon brush and a sleeved red wire and carbon brush.



● = WIRE TRAPS or GUIDES

AS AN AID TO REASSEMBLY, TAKE NOTICE OF WIRE ROUTING AND POSITION IN WIRE GUIDES AND TRAPS WHILE DISMANTLING TOOL.

BE CAREFUL AND AVOID PINCHING WIRES BETWEEN HANDLE HALVES WHEN ASSEMBLING.