



SERVICE PARTS LIST

BULLETIN NO.
54-47-3000

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
M18™ FORCELOGIC™ 6T Latched Linear Utility Crimper			Nov. 2022
CATALOG NO.	2979-20	STARTING SERIAL NO.	M09A
		WIRING INSTRUCTION SEE PAGE 6	






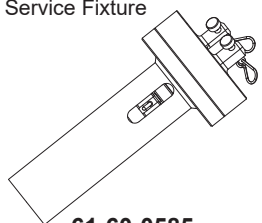

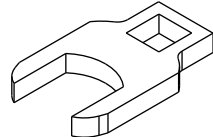
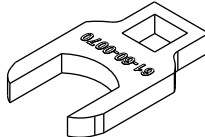
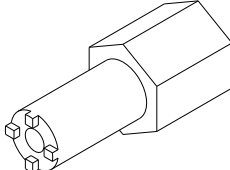
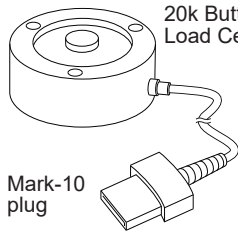
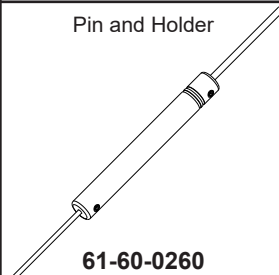
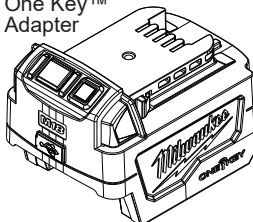
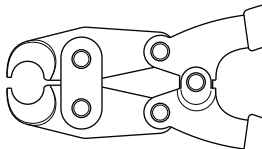
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BEST PRACTICES when Servicing FORCELOGIC™ Tools

- **Caution:** Always assume Hydraulic tool is under pressure, before starting any repair procedures, manually engage the relief valve. Confirm no hydraulic pressure remains.
- **Important!** The pressure sensor is a monitoring device that is calibrated with the electronics assembly. **Always** replace pressure sensor and electronics assembly **as a set!**
- **Always** wear P.P.E. (Personal Protective Equipment) when working with hydraulic fluid.
- **Do not** use Hammers or Impact tools.
- **Do not** use sharp metal objects on seals or sealing surfaces.
- **Always** use recommended service tools and fixtures.
- **Always** ensure new hydraulic parts are free of burrs or defects.
- **Always** establish a clean work area free of dirt and debris.
- **Always** insure that clean parts are used prior to assembly.
- **Always** follow proper torque specifications.
- **Always** confirm repair by testing on verification fixtures.
- **Always** use appropriate hydraulic oil, MILWAUKEE FORCELOGIC™ Hydraulic Oil, No. 49-32-0110.
- **Always** remove battery pack before changing or removing accessories. Only use accessories specifically recommended for this tool. Others may be hazardous. For a complete listing of accessories, go online to www.milwaukeetool.com or contact a local MILWAUKEE distributor.

SERVICE TOOLS / FIXTURES

Indicator  61-50-0020	Fill Bottle  61-50-0040	Seal Pick Tool  61-50-0050	Filling Syringe Quantity of 5  61-50-0100	Filling Needle Quantity of 10  61-50-0110
6T Latched Linear Service Fixture  61-60-0585	Cam-Drill Attachment  61-60-0050	Crowfoot Wrench  13mm and 16mm	Pressure Sensor Crowfoot Wrench  61-60-0070	Manual Release Valve Installation Tool  61-60-0415
20k Button Load Cell  Mark-10 plug 61-60-0590	Pin and Holder  61-60-0260	One Key™ Adapter  2700-20	Crimping Service Tool  61-60-0265	



Service Videos are available to aid in repair and maintenance of M18™ FORCELOGIC™ Tools.



Repair Guides are available that illustrate/explain any special assembly, settings or procedures.



Verification Procedures are covered in service videos as well as repair guides.

MILWAUKEE TOOL • www.milwaukeetool.com
13135 W. Lisbon Road, Brookfield, WI 53005
Drwg. 1

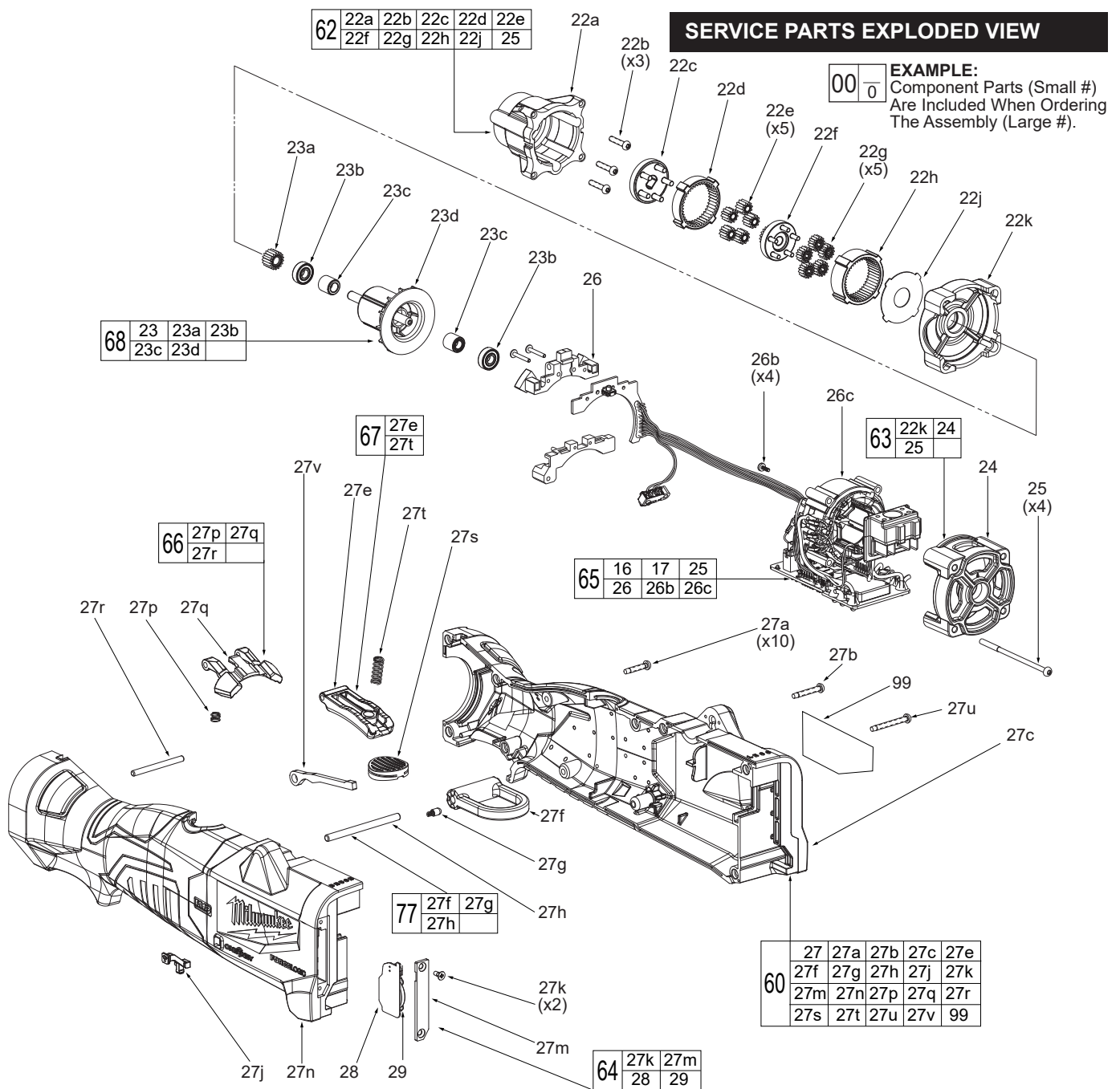


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
22	-----	Gearcase Assembly	(1)	27e	-----	Trigger	(1)
22a	-----	Gearcase Housing	(1)	27f	-----	Lanyard Latch Ring	(1)
22b	05-74-0117	M Screw M3x0.5 PH Torx T10	(3)	27g	-----	Steel Cap Assembly	(1)
22c	-----	Carrier	(1)	27h	-----	Hook Pin	(1)
22d	-----	2nd Ring Gear	(1)	27j	-----	Blue Tooth Lens	(1)
22e	-----	2nd Planet Gear	(5)	27k	05-74-0145	ST Screw, steel 6MM	(2)
22f	-----	2nd Sun Gear	(1)	27m	-----	Coin Cell Cover	(1)
22g	-----	1st Planet Gear	(5)	27n	-----	Handle Support	(1)
22h	-----	1st Ring Gear	(1)	27p	-----	Dump Button Spring	(1)
22j	-----	Motor Washer	(1)	27q	-----	Release Button	(1)
22k	-----	Motor Mount	(1)	27r	-----	Pin Diam 3.3 XL 38 MM	(1)
23	-----	Rotor Assembly	(1)	27s	-----	Release Button	(1)
23a	-----	Motor Pinion	(1)	27t	-----	Trigger Spring	(1)
23b	-----	Ball Bearing, 2rs	(2)	27u	06-82-5315	M Screw	(1)
23c	-----	Sleeve for Dia 5MM Motor Shaft	(2)	27v	-----	Lever	(1)
23d	-----	Rotor mil, molded with fan	(1)	28	-----	M18 Gen3 Coin Cell Board	(1)
24	-----	Rear Motor Mount	(1)	29	-----	Coin Cell 3V	(1)
25	05-74-0118	M Screw	(4)	60	14-46-0398	Handle Kit with Service Label	(1)
26	-----	PCBA and Motor Stator Assembly	(1)	62	14-30-0111	Gearcase Assembly	(1)
26a	-----	PCB Assembly	(1)	63	44-34-0096	Motor Mount Kit	(1)
26b	05-88-0106	PT Screw M2	(4)	64	22-09-0056	Coin Cell Kit	(1)
26c	-----	Stator for parallel winding	(1)	65	14-46-0399	Stator PCB Sensor Kit	(1)
27	-----	Handle Assembly	(1)	66	14-46-0400	Electronic Dump Trigger Kit	(1)
27a	06-82-6351	ST M3x1.058 PH-T10	(10)	67	31-92-0121	Run Trigger Kit	(1)
27b	06-82-7336	ST Screw steel	(1)	68	14-50-0036	Rotor Assembly	(1)
27c	-----	Handler Cover	(1)	77	14-47-0222	Hook Ring Kit	(1)
				99	12-20-0256	Service Nameplate	(1)

SERVICE PARTS EXPLODED VIEW

See the next page for corresponding service part listing

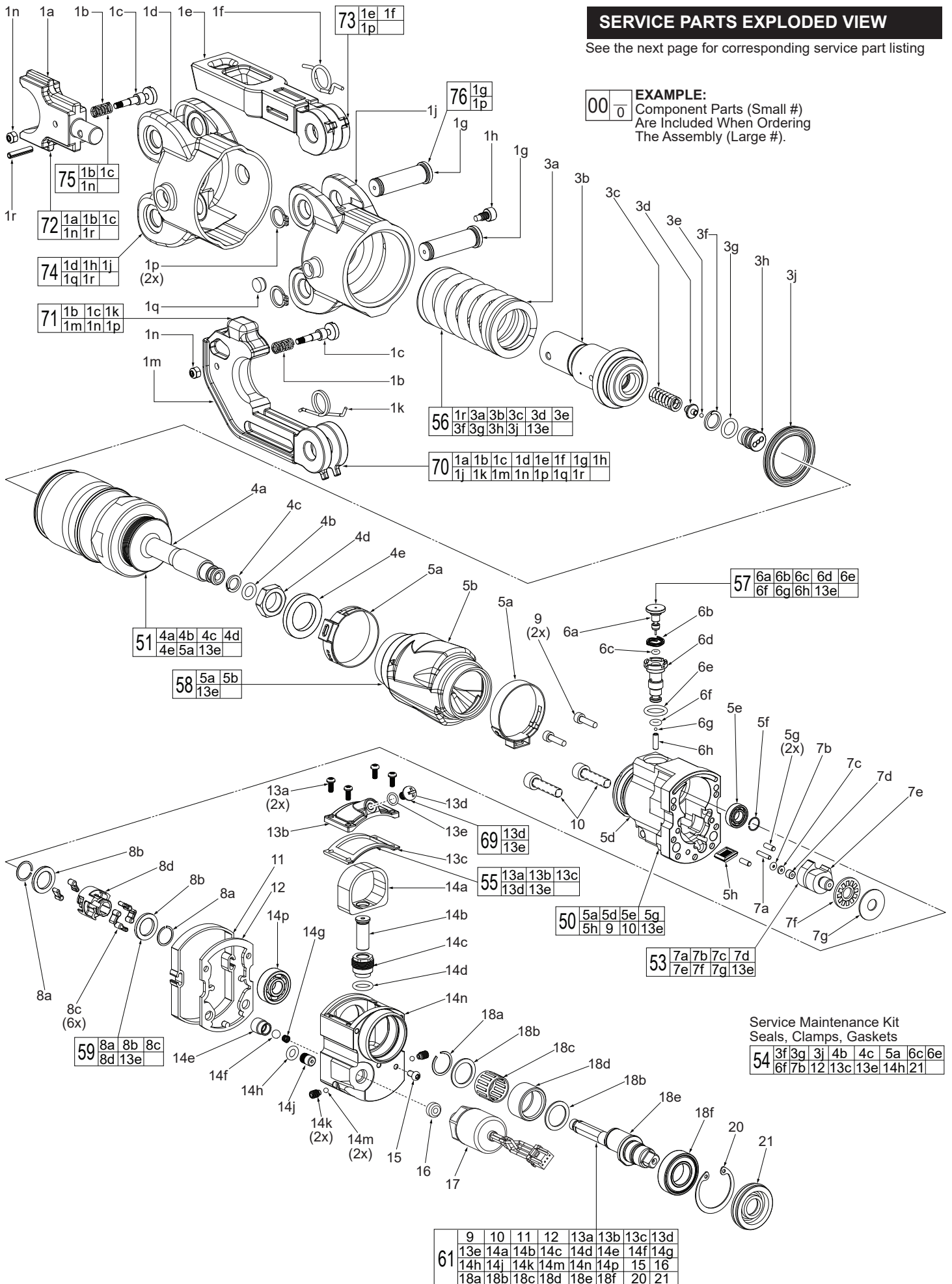


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1a	-----	Ram Head	(1)
1b	-----	W-Die Spring	(2)
1c	-----	W-Die Pin	(2)
1d	-----	Rubber Boot	(1)
1e	-----	Latch	(1)
1f	-----	Latch Spring	(2)
1g	-----	Ram Head Pin	(2)
1h	-----	M4 x 8mm TH Hex Drive Mach. Screw	(1)
1j	-----	Clevis	(1)
1k	-----	Nest Spring	(1)
1m	-----	Nest	(1)
1n	-----	W-Die Lock Nut	(2)
1p	-----	Retaining Ring	(2)
1q	-----	Rubber Plug	(1)
1r	-----	Spring Pin	(1)
3a	-----	Ram Spring	(1)
3b	-----	Ram	(1)
3c	-----	Relief Valve Spring	(1)
3d	-----	Relief Valve Spring Plunger	(1)
3e	-----	2mm Steel Ball	(1)
3f	-----	Back-Up Washer	(1)
3g	-----	O-Ring	(1)
3h	-----	Relief Valve Adjuster	(1)
3j	-----	Cup Seal with Backup	(1)
4a	-----	Hydraulic Cylinder	(1)
4b	-----	O-Ring	(1)
4c	-----	Backup Washer	(1)
4d	-----	Hex Nut	(1)
4e	-----	Magnet Ring	(1)
5a	31-17-0016	Ear Clamp	(2)
5b	-----	Rubber Bladder	(1)
5d	-----	Manifold	(1)
5e	-----	Ball Bearing	(1)
5f	42-36-0062	Retaining Ring	(1)
5g	-----	Pin	(2)
5h	-----	Screen	(1)
6a	-----	Release Valve Pin	(1)
6b	-----	Wave Spring	(1)
6c	-----	O-Ring	(1)
6d	-----	Manual Release Seat	(1)
6e	-----	O-Ring	(1)
6f	-----	O-Ring	(1)
6g	-----	1.5mm Steel Ball	(1)
6h	-----	Ball Retainer	(1)
7a	-----	Dowel Pin	(1)
7b	-----	O-Ring	(1)
7c	-----	Backup Washer	(1)
7d	-----	Disc Shear Seal	(1)
7e	-----	Rotary Valve	(1)
7f	-----	Needle Bearing	(1)
7g	-----	Thrust Washer	(1)
8a	-----	Retaining Ring	(2)
8b	44-86-0033	Flat Washer	(2)
8c	43-40-0061	Drive Pawl	(6)
8d	-----	Sprocket	(1)
9	05-74-0113	M3 x 12mm Cap Hd. Hex Mach. Screw	(2)
10	06-75-0062	M5 x 20mm Cap Hd. Hex Mach. Screw	(2)
11	-----	Pump Gasket Retainer	(1)
12	-----	Rubber Cap Gasket	(1)
13a	05-88-0080	M2.5 x 6mm Pan Hd. T-8 TP Mach. Scr.	(4)
13b	-----	Pump Body Cap	(1)
13c	43-40-0062	Pump Gasket	(1)
13d	05-78-0126	M4 x 5mm Pan Hd. T-20 Tapt. Screw	(1)
13e	34-40-0051	O-Ring	(1)
14a	-----	Cam Shaft Retainer	(1)
14b	-----	Piston	(1)
14c	45-22-0155	Pump Sleeve	(1)
14d	-----	O-Ring	(1)
14e	-----	Intake Seat	(1)
14f	-----	4.5mm Steel Ball	(1)
14g	-----	Intake Spring	(1)
14h	-----	O-Ring	(1)
14j	-----	Check Valve	(1)
14k	05-74-0143	M4 x 6mm Hex Recess Set Screw	(2)
14m	-----	2.5mm Steel Ball	(2)
14n	-----	Pump Body	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
14p	-----	Ball Bearing	(1)
15	05-74-0144	M3 x 5mm Pan Hd. T-10 Machine Scr.	(1)
16	-----	Crush Washer	(1)
17	-----	Pressure Sensor	(1)
18a	-----	Retaining Ring	(1)
18b	-----	Flat Washer	(2)
18c	-----	Needle Bearing	(1)
18d	-----	Race Roller Bearing	(1)
18e	-----	Cam Shaft	(1)
18f	-----	Ball Bearing	(1)
20	44-86-0051	Retaining Ring	(1)
21	45-06-0022	Rubber Shaft Seal	(1)
50	14-46-0381	Manifold Service Kit	(1)
51	14-46-0383	Cylinder Service Kit	(1)
53	31-94-0018	Shear Valve Service Kit	(1)
54	14-46-0384	Maintenance Service Kit	(1)
55	42-54-0012	Oil Filling Service Kit	(1)
56	14-46-0382	Ram Service Kit	(1)
57	14-46-0396	Release Valve Service Kit	(1)
58	14-46-0397	Bladder Service Kit	(1)
59	45-44-0014	Sprocket Service Kit	(1)
61	14-46-0401	Pump Body Service Kit	(1)
69	14-46-0221	Oil Filling Screw & O-Ring Service Kit	(1)
70	14-46-0402	Head Service Assembly	(1)
71	14-46-0409	Nest Service Kit	(1)
72	14-46-0411	Ram Head Service Kit	(1)
73	14-46-0403	Latch Service Kit	(1)
74	14-46-0410	Clevis with Screw Service Kit	(1)
75	44-60-0071	W-Die Pin Service Kit	(1)
76	14-46-0412	Head Pin Service Kit	(1)

TORQUE SPECIFICATIONS

FIG.	PART NO.	PART or WHERE USED	SEAT TORQUE	
			(kgf-cm)	(lb-in)
1c	-----	Die Pin, Ram Head	13.5±1.5	11.7±1
1h	-----	Screw, Clevis	6±1	5±1
3h	-----	Release Valve Adjuster, Ram	55±5	48±4
4a	-----	Cylinder	600±36	520±34
4d	-----	Hex Nut M12x1.0	222±13	193±11
6d	-----	Relief Valve Seat	50* 70**	43* 61**
9	05-74-0113	Screw, Pump Body M3	15±2	13±1
10	06-75-0062	Screw, Pump Body M5	30* 50**	26* 43**
13a	05-88-0080	Screw, Pump Cover	.5-1* 5.7±2	4-.9* 5±1
13d	05-78-0126	Screw, Bladder/Fill	14.5±2.5	12.5±2
14c	45-22-0155	Pump Sleeve	***175±10	***152±8
14e	-----	Intake Seat	45±3	39±2
14k	05-74-0143	Screw, check ball	12±2	10±1
15	05-74-0144	Ground Screw, Pump Body	11±1	10±1
17	-----	Pressure Sensor	204±12	177±10
22b	05-74-0117	Screw, Manifold	10.5±1.5	9.1±1
25	05-74-0118	Screw, Gear Box	14.5±2.5	13±2
26b	05-88-0106	Screw, PCBA/Motor	3±.5	3±.5
27a	06-82-6351	Screw M3x1.058, Handle Cover	11±1	10±1
27b	06-82-7336	Screw M3x20, Handle Cover	7±1	6±1
27k	05-74-0145	Screw M2.6x6, Handle Cover	2.5±.5	2.2±.4
27u	06-82-5315	Screw M3x26.5, Handle Cover	11±1	10±1

* = Pre-tighten with hand screwdriver









** = Tighten with torque wrench

*** = Hand pre-tighten



Service Verification Specification 4350-4850 lbs

LUBRICATION INSTRUCTIONS

-  243 Blue Loctite®, No. 44-22-0095
-  263 Red Loctite®, No. 44-22-0130
-  SF7088 Loctite®, No. 44-22-0025
-  Type S2 Grease, No. 49-08-5265
-  Type GE 00 Urethyn Grease, (2.8 oz. tube) No. 49-08-5355
-  Type J Grease (1 lb.), No. 49-08-4220
-  Dielectric Type X Grease, No. 49-08-5000
-  FORCELOGIC™ Hydraulic Oil, No. 49-32-0110

NOTE:

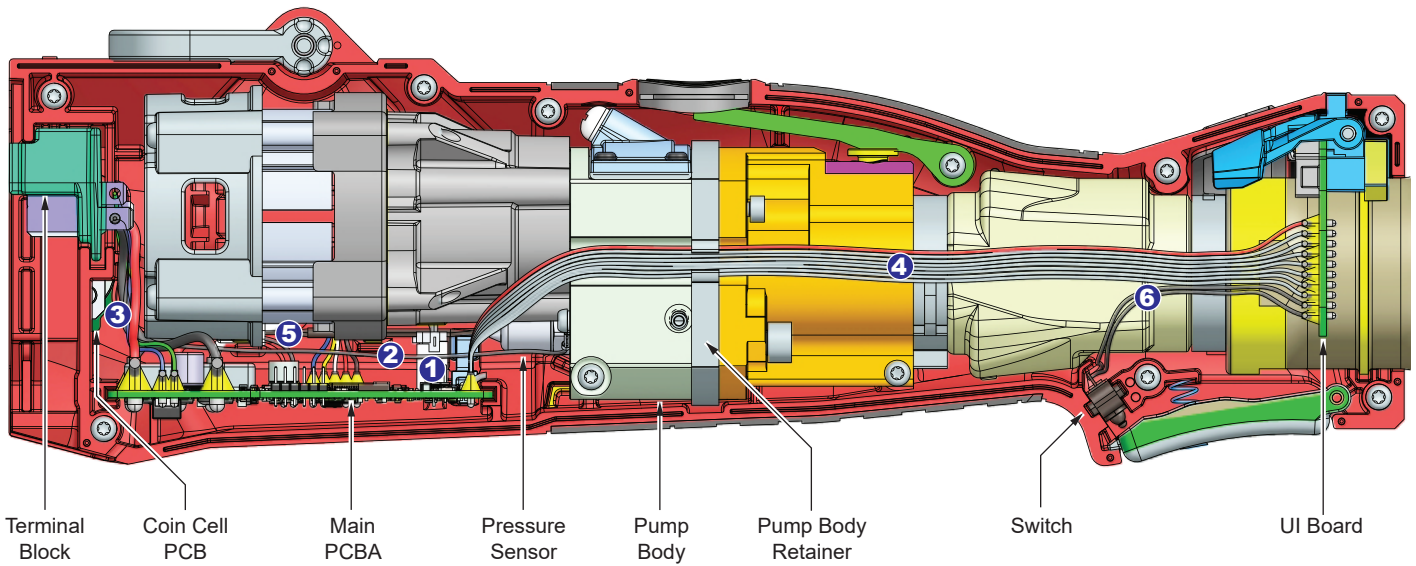
Regarding parts to be lubricated: Apply a light coating of grease to all highlighted parts shown prior to installation. Reference the key above for grease types.

NOTE

Regarding parts to receive thread locking sealant: Place one to two drops of the recommended Loctite® thread locking sealant (or the equivalent) to the threads of parts shown prior to installation.

Use
Milwaukee
FORCELOGIC™
Hydraulic Oil
Cat. No. 49-32-0110
(1 L, 1.06 Qt.)

SERVICE WIRING



WIRE SPECIFICATIONS

WIRE	DESCRIPTION	WIRE COLOR	ROUTE	LENGTH	ASSEMBLY SEQUENCE
1	PRESSURE SENSOR WIRE	N/A	FROM PRESSURE SENSOR TO PCBA	40.6±5mm	1ST STEP
2	HV WIRE	BLACK	FROM PUMP BODY TO MAIN PCBA	130+5/-0mm	2ND STEP
3	COIN CELL WIRE	RED/BLACK	FROM MAIN PCBA TO COIN CELL PCB	120+4/-0mm	3RD STEP
4	UI BOARD WIRE	N/A	FROM MAIN PCBA VIA PUMP BODY RETAINER, TO UI BOARD	205+5/-0mm	4TH STEP
5	TERMINAL WIRE	BLUE/RED/ GREEN/BLACK	FROM MAIN PCBA TO TERMINAL BLOCK	50+5/-0mm	5TH STEP
6	SWITCH WIRE	GRAY	FROM SWITCH TO MAIN PCBA	UPPER 90+4/-0 LOWER 100+4/-0	6TH STEP

