### SERVICE PARTS LIST

L85A

Milwaukee CATALOG NO.

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS

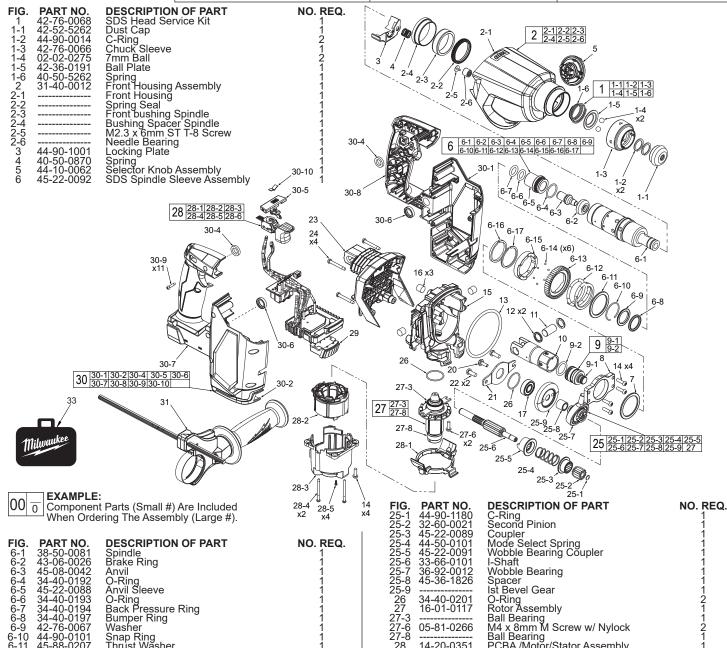
M18™ FUEL™ 1" SDS Plus Rotary Hammer STARTING SERIAL

2912-20

REVISED BULLETIN

DATE Jan. 2022

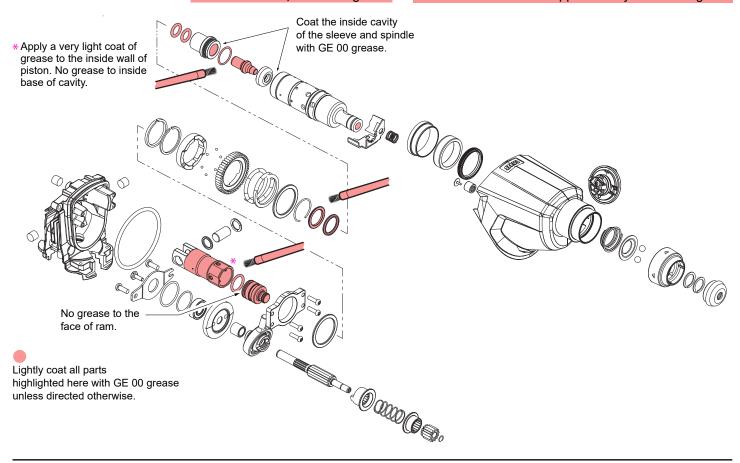
WIRING INSTRUCTION SEE PAGE 6

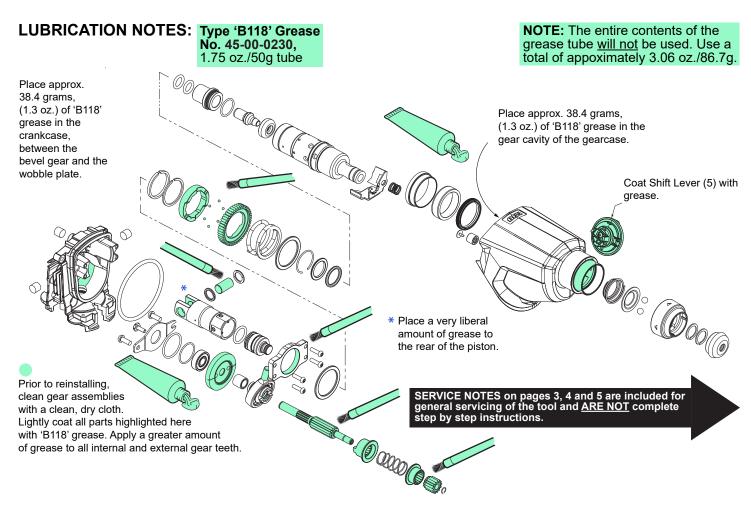


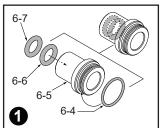
6-4 6-5 6-6 6-7 6-8 6-9 6-10 6-11 6-12 6-13 6-14 6-15	38-50-0081 43-06-0026 45-08-0042 34-40-0192 45-22-0088 34-40-0194 34-40-0194 34-40-0194 42-76-0067 44-90-0101 45-88-0207 40-50-0183 32-75-0028 02-02-0111 42-70-0138 44-90-0102 44-90-0103 45-88-0206 45-56-0026	Spindle Brake Ring Anvil O-Ring Anvil Sleeve O-Ring Back Pressure Ring Bumper Ring Washer Snap Ring Thrust Washer M-Clutch Spring Gear 2.5mm Ball Clutch Plate Retaining Ring Snap Ring Washer Bearing Striker O-Ring Assembly Striker O-Ring Piston Wrist Pin Wrist Pin Washer Gasket M4 x 0.7mm Machine Screw Gearcase Felt Plug Ball Bearing Washer M4 x 12mm Screw Bearing Retainer M5 x 13mm Mach. Screw Rear Housing Assembly M4 ST Screw Wobble Shaft Assembly	111111111111111111111111111111111111111
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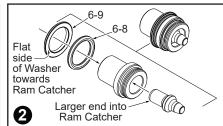
25-3 25-3 25-4 25-5-6 27-3 28-1 222-2 28-3 30-1 30-5-6 30-1 30-3 30-1 30-1 30-1 30-1 30-1 30-1	14-20-0351 31-86-0012 31-50-0066 06-82-2367 42-28-2712 31-44-0237 	Rotor Assembly Ball Bearing M4 x 8mm M Screw w/ Nylock Ball Bearing PCBA /Motor/Stator Assembly Clamp Spacer Stator Motor Housing M3 x 1.058 Pan Hd. T-10 Screw M2 x 0.89 PT Screw Terminal Cover Handle Housing Kit Housing-Support Housing-Cover Foam Bushing Shuttle Rubber Cushion Handle Cover Handle Support M3 ST Screw Spring Side Handle Assembly Service Nameplate (Not shown)	NO. REC
31	31-44-0208 12-20-0328 42-55-0171 42-55-0173	Side Handle Assembly	1 1

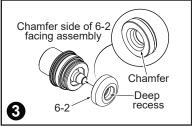
**NOTE:** The entire contents of the grease tube <u>will not</u> be used. Use a total of appoximately .32 oz./9.2g.





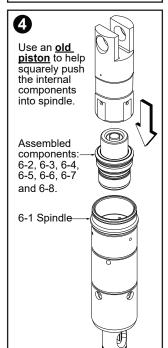


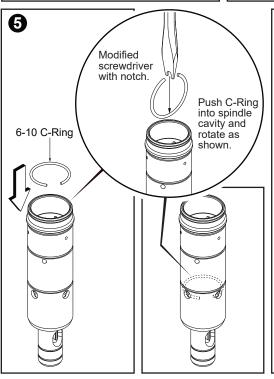




Use the same

old piston to seat C-Ring

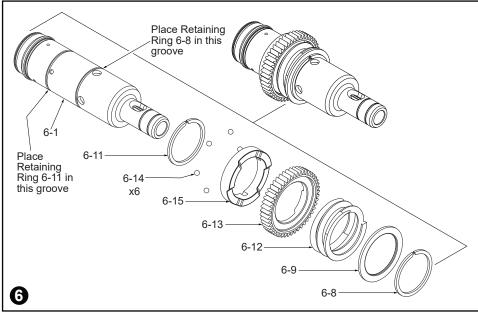


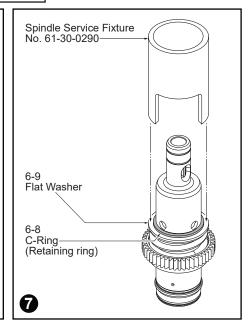




## Assembly of internal Spindle components:

- Lubricate Ram Catcher and O-Rings. Assemble O-Rings onto and into Ram Catcher.
- Assemble Striker Assembly into Ram Catcher Assembly (large end into Ram Catcher as shown).
- Place the chamfered end of the Stop Washer over the small end of the Striker.
- 4. Place the assembled components from step 4 into the cavity of an old piston as shown. Use the old piston as an aid to push the assembled components deep into the Spindle cavity.
- 5. C-Ring (6-10) will be used to secure the internal components inside the spindle. It is recommended to modify a flat blade screwdriver by filing or grinding a notch into the blade. Place the C-Ring upright as shown with the opening of the ring straight up. Use the modified screwdriver to push the C-Ring down into the Spindle cavity. Rotate the C-Ring in the spindle cavity as shown Place the old piston into the Spindle cavity and tap the piston with a mallet to secure the C-Ring in the groove.





#### Assembly of external Spindle components:

Place C-Ring 6-11 onto Spindle. With the aid of a snap ring pliers, work the C-Ring into the rear most spindle groove and snap into place.

As an aid, put a dab of grease on your finger to pick up and place the six Steel Balls 6-14 into the three small holes on the Spindle just above the previously installed C-Ring.

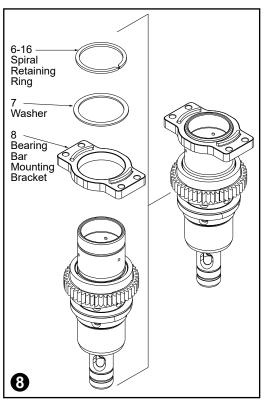
Lubricate and install the Clutch Plate 6-15 onto the Spindle. Be sure to orient the part as shown and position with the three notches on the back of the plate over the six steel balls.

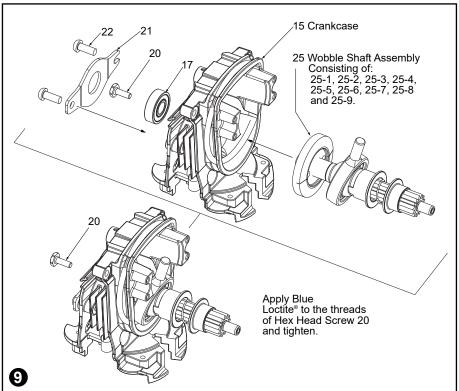
Lubricate and install the Clutch Gear 6-13. Place the Clutch Spring 6-12 over the Clutch Gear and the Washer 6-9 over the Spring.

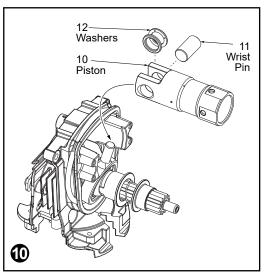
Place C-Ring 6-8 onto Spindle. With the aid of a snap ring pliers, work the C-Ring down to the other parts assembled onto spindle.

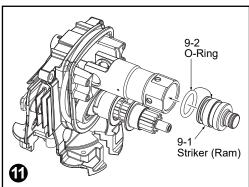
7. Place Spindle Service Fixture 61-30-0290 over the assembled parts and the spindle. Position so the fixture rests on Flat Washer 6-9. Place the fixture and spindle assembly in an arbor press and carefully compress the Clutch Spring enough to expose the spindle groove for C-Ring 6-8.

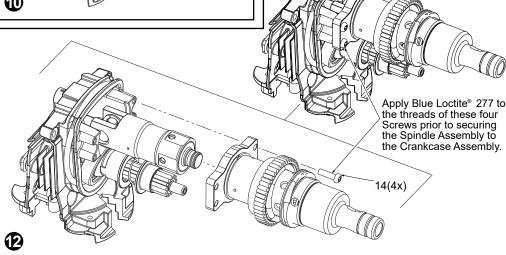
While compressed, use a screwdriver to work C-Ring 6-8 into the groove.







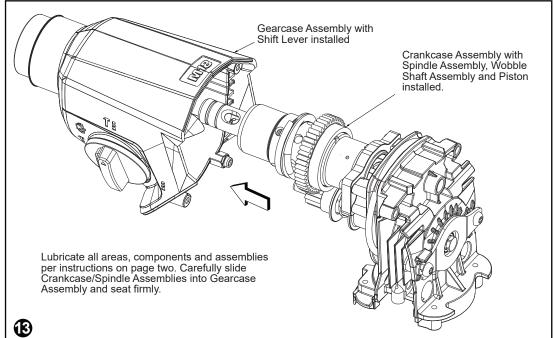


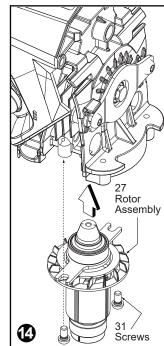


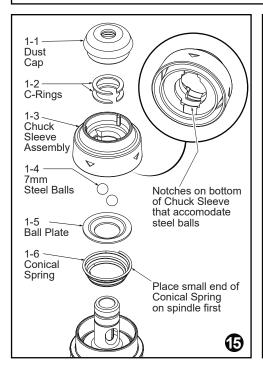
8. The flat side of the Bearing Bar 8 has a rounded recess area that will recieve the Spindle. Coat the recess area and place the Spindle Bearing in the recess. Place the two parts onto the Spindle Assembly as shown. Next place the Washer 7 on top of the Bearing Bar and secure with Spiral Retaining Ring 6-16.

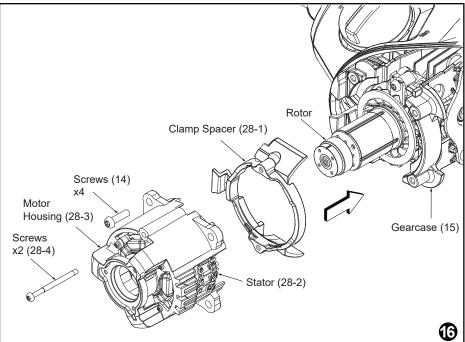
# Mounting the Spindle Assembly onto the Crankcase Assembly

- 9. Lubricate the inside cavity of the Crankcase 15 with grease. Place Wobble Shaft Assembly 25 into Crankcase Assembly as shown. Use 9mm Hex Head Screw 20 to secure Wobble Shaft Assembly to Crank-case Assembly. NOTE: Prior to installing screw, place a few drops of Blue Loctite® thread locking sealant to the threads and tighten. Use a 9mm socket and tighten Hex Head Screw to 15-20 in/lbs (18-23 kg/cm).
- 10. Place Washers 12 and Wrist Pin 11 into rear area of Piston 10. While holding those parts in place, be sure the Washers are separated, one on each side of the hole in the Wrist Pin. Connect the Piston Assembly to the Wobble Shaft Assembly by sliding the hole on the Wrist Pin over the arm on the wobble bearing.
- 11. Lubricate O-Ring 9-2 and Striker (Ram) 9-1. Be sure not to have any lubrication on the rear (flat side) of Striker. Place O-Ring onto Striker 9-1. Insert assembled parts into Piston 10 as shown.
- 12. Mount the Spindle Assembly onto The Crankcase Assembly by inserting the Piston into the Spindle. Use four Screws to secure the Spindle Assembly to the Crankcase Assembly. NOTE: Prior to installing screws, place a few drops of Blue Loctite® thread locking sealant to the threads.









- 13. Install the Crankcase / Spindle Assembly into the Gearcase Assembly while following the lubrication instructions on page two.
- 14. Install the Rotor Assembly 27 into the bottom of the Crankcase. To prevent uneveness, start one screw 31 but do not tighten. Install the other screw and tighten both to 21-26 in/lbs (25-30 kg/cm).
- 15. Install the front components onto the Spindle.

Place the small end of the Conical Spring 1-6 onto the spindle first.

Place the Ball Plate 1-5 over the spring (flat side up).

Compress the Conical Spring to install the two Steel Balls 1-4.

Place the SDS Head Service Kit 1 onto the Spindle over the Steel Balls. Notice the notches in the sleeve that correspond to the Steel Balls.

Install one of the C-Rings onto the bottom most groove on the front of the Spindle. Be sure the C-Ring is seated properly in that groove. Check the Chuck Sleeve Assembly for proper functionality.

15. Continued...

Install the second C-Ring onto the front most groove of the Spindle. Be sure the C-Ring is seated properly in that groove.

Place the Dust Cap 1-1 over the front of the Spindle and that last C-Ring. Once again check that the SDS Head Service Kit is functioning properly.

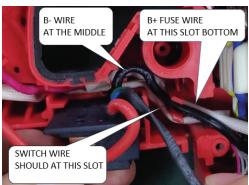
16. Place Stator 28-2 in Motor Housing 28-3.

Place the Clamp Spacer 28-1 onto Motor Housing 28-3.

Place two Screws 28-4 through holes on Motor Housing 28-3 and fasten to Clamp Spacer 28-1.

Place all four Screws 14 onto the Motor Housing Cover and tighten in Gearcase 15 to 30-34 in/lbs (35-40 kg/cm).







Wire traps or channels

### ●14-46-0196 **-**

	Rotary Hamn	ner Service Kit	
1-1 1-2 1-3 6-4 6-6 6-7 6-8 6-10 6-14 6-16 6-17 7 9-2 12 13 14 16 20 22 24 25-1 26 27-6 30-9	42-52-5262 44-90-0014 42-76-0066 34-40-0192 34-40-0193 34-40-0197 44-90-0101 02-02-0111 44-90-0102 44-90-0103 34-40-1511 44-60-0033 43-44-1375 05-81-1337 43-84-0300 05-81-0196 05-78-0032 05-88-1525 44-90-0180 34-40-0051 05-81-0266 42-40-0051 44-52-0081 06-82-1080 49-08-5355	Dust Cap C-Ring Chuck Sleeve C-Ring O-Ring Back Pressure Ring Back Pressure Ring Snap Ring 2.5mm Ball Retaining Ring Snap Ring O-Ring Wrist Pin Washer Gasket M4 x 0.7mm Screw Felt Plug M4 x 12mm Screw M5 x 13mm Screw M4 ST Screw C-Ring O-Ring O-Ring M4 x 8mm M Screw Foam Bushing Rubber Cushion M3 ST Screw GE 00 Grease 2.8 oz B118 Grease 1.75 oz	12111111611121831241222211 1 2

Ensure wires are in channel.

SCREW TORQUE SPECIFICATIONS						
			SEAT TORQUE			
FIG.	PART NO.	WHERE USED	(KG/CM)	(IN/LBS)		
2-5		Front Housing Assembly	3.5	0.5		
14	05-81-1337	Bearing Bar Mounting Bracket	12	10		
20		Gearcase Assembly	27	23		
22	05-78-0032	Bearing Retainer	50	43		
24	05-88-1525	Rear Housing Assembly	28	24		
27-6	05-81-0266	Rotor Assembly	18	16		
28-4	06-82-2367	Motor Housing	10	8		
28-5		PCBA Assembly	3	1		
28-6	06-82-0196	PCBA	4	2		
30-9	06-82-1080	Housing / Handle Cover	10	8		