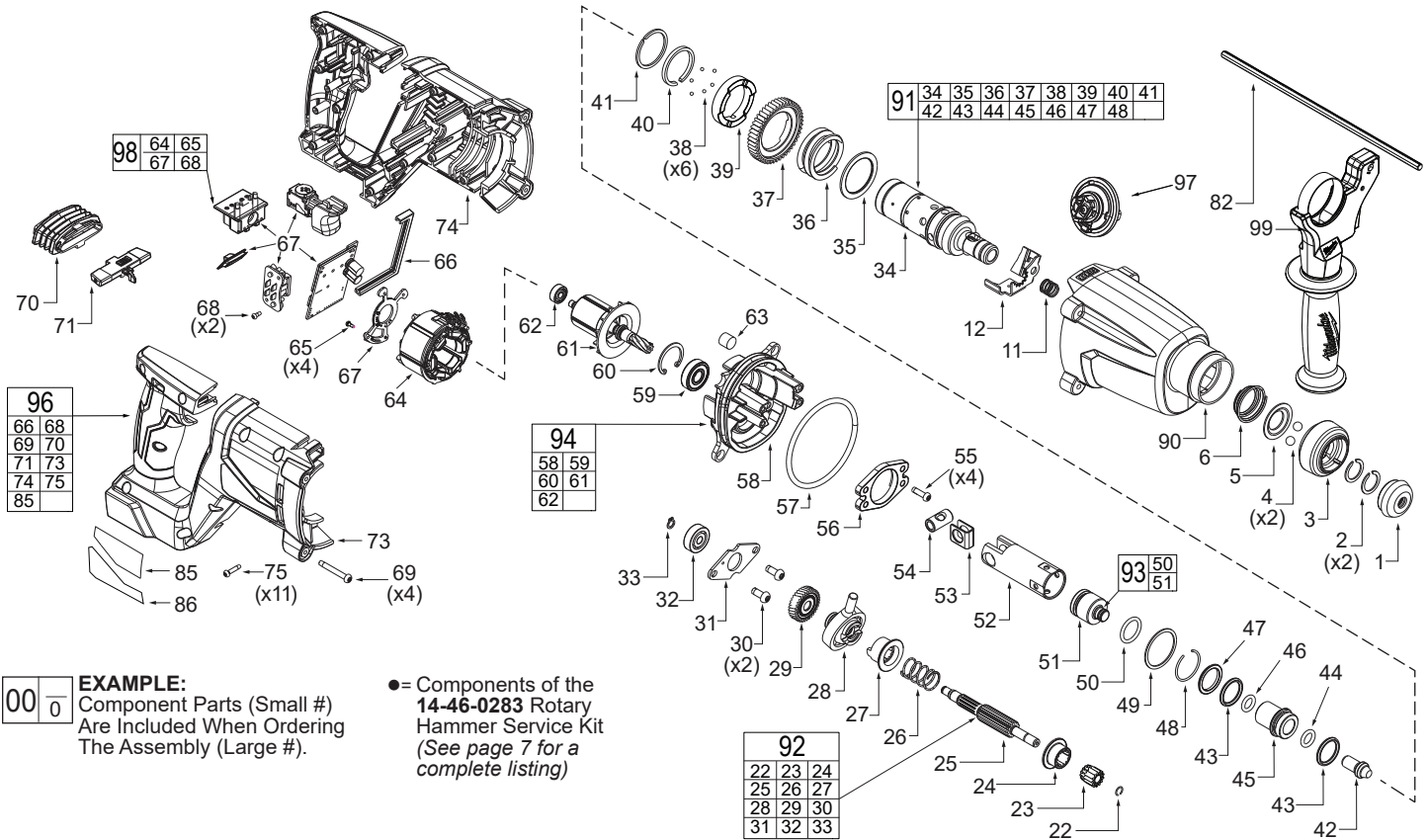




# SERVICE PARTS LIST

**BULLETIN NO.**  
**54-24-2610**

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
<b>M18™ Brushless 1" SDS Plus D-Handle Rotary Hammer</b>			Jan. 2023
CATALOG NO. <b>2613-20</b>	STARTING SERIAL NO. <b>N29A</b>	WIRING INSTRUCTION <b>SEE PAGE 8-9</b>	



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

● = Components of the  
**14-46-0283 Rotary  
Hammer Service Kit**  
(See page 7 for a  
complete listing)

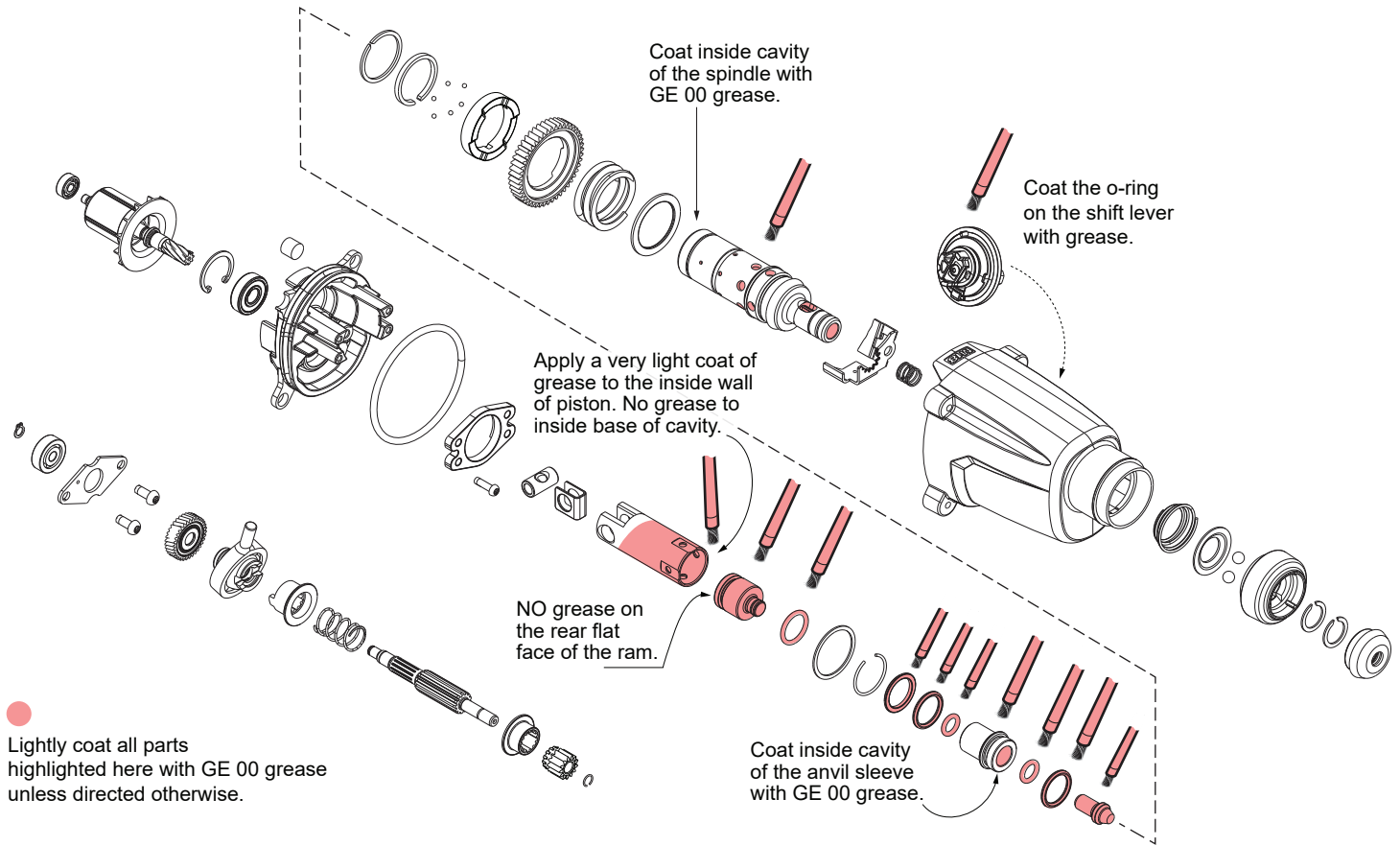
FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	42-52-0067	Dust Cap	1
2	44-90-0014	Retaining Ring	2
3	42-76-0096	Chuck Sleeve	1
4	02-02-0275	7mm Steel Ball	2
5	42-36-0191	Ball Plate	1
6	40-50-5262	Conical Spring	1
11	40-50-0870	Spring	1
12	44-90-0207	Spindle Lock Plate	1
22	44-90-1180	Steel C-Ring	1
23	32-60-1611	● 2nd Stage Pinion	1
24	45-22-0927	Pinion Coupler	1
25	36-66-0245	I-Shaft	1
26	40-50-0134	Spring for I-Shaft	1
27	45-22-0031	Wobble Coupler	1
28	36-92-0015	Wobble Bearing	1
29	32-05-0122	1st Stage Helical Gear	1
30	-----	M5 x 8 T-25 PH Taptite Screw	2
31	44-66-0238	● Bearing Retain Plate	1
32	02-02-0128	Ball Bearing	1
33	44-86-0305	Retaining Ring	1
34	-----	● Spindle	1
35	45-88-2115	Stop Disk	1
36	40-50-1721	Clutch Spring	1
37	32-75-1831	2nd Reduction Gear	1
38	-----	2.5MM Steel Ball	6
39	-----	● Clutch Plate	1
40	-----	Retaining Ring	1
41	-----	● Retaining C-Ring	1
42	45-08-0034	● Anvil (Striker)	1
43	34-40-0207	Anvil Sleeve Bumper Ring	2
44	34-40-0013	● O-Ring	1
45	45-22-0112	● Anvil Sleeve (Ram Catcher)	1
46	34-40-0208	Catch O-Ring	1
47	42-76-0072	● Washer	1
48	44-90-1026	Snap Ring (C-Ring)	1
49	45-88-0143	● Thrust Washer	1
50	34-40-1511	O-Ring-Striker	1
51	-----	● Striker (Ram)	1
52	44-62-0162	Piston	1

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
53	45-88-0293	Shape Washer	1
54	44-60-0033	Cylinder Bolt	1
55	05-81-1337	M4 x 14mm Screw	4
56	42-36-0048	● Bearing Bar Mounting Bracket	1
57	43-44-1375	O-Ring	1
58	43-84-0036	● Gearcase	1
59	-----	FE Bearing	1
60	-----	Bevel Snap Ring	1
61	-----	Rotor	1
62	-----	Ball Bearing	1
63	43-84-0300	Felt Plug	1
64	-----	● Stator	1
65	-----	M2.5 x 0.907 PH Taptite T-8 Screw	4
66	-----	● Rubber Bumper	1
67	-----	PCBA	1
68	-----	M2.5 x 1.058 PH Taptite Screw	2
69	05-88-1525	● M4 x 1.411 PH T-20 B Screw	4
70	43-87-0037	● AVS	1
71	45-24-0206	Shuttle	1
73	-----	Housing Cover	1
74	-----	Housing Support	1
75	-----	M3 Screw	11
82	31-10-0031	● Depth Stop	1
85	12-20-0339	Service Nameplate	1
86	10-20-6138	Warning Label	1
90	31-40-0011	Front Housing Assembly	1
91	45-22-0293	Spindle Assembly	1
92	14-73-0024	Wobble Shaft Assembly	1
93	45-56-2531	Striker and O-Ring Service Kit	1
94	31-15-0317	Gearcase and Rotor Assembly	1
96	31-44-0443	Housing Kit	1
97	44-10-0063	Mode Selector Assembly	1
98	14-20-0521	PCB & Stator Assembly	1
99	14-34-0201	Side Handle Assembly	1
	14-46-0283	Rotary Hammer Service Kit (See Page 6)	1

**LUBRICATION NOTES:**

**Type GE 00 Urethyn Grease**  
**No. 49-08-5355, 2.8 oz./80g tube**

**NOTE:** The entire contents of the grease tube **will not** be used. Use a total of approximately 3/16 oz./5.4g.



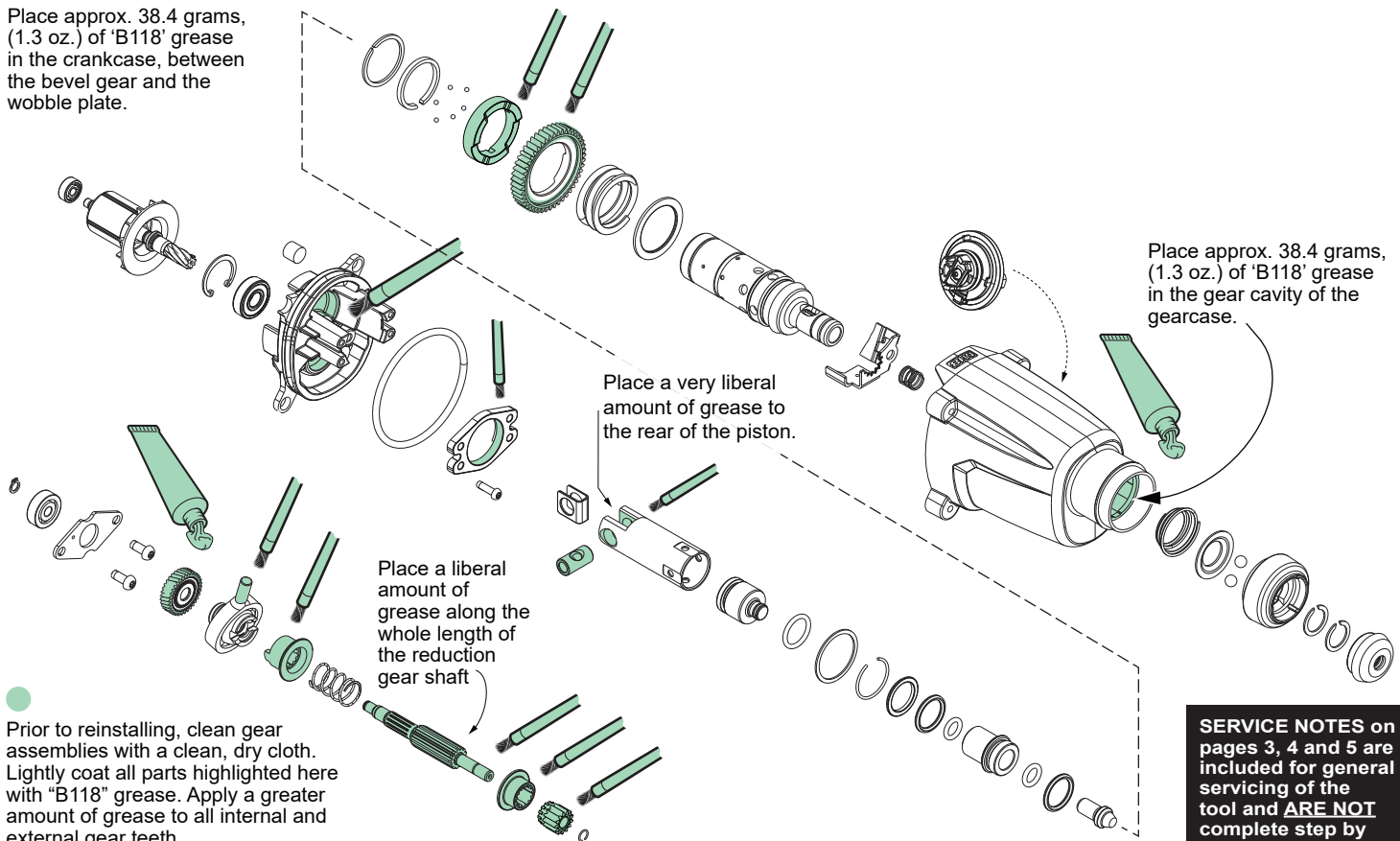
● Lightly coat all parts highlighted here with GE 00 grease unless directed otherwise.

**LUBRICATION NOTES:**

**Type B118 Grease No. 45-00-0230,**  
**1.76 oz./50g tube**

**NOTE:** you will need 2 tubes for complete lubrication (approximately 81g). Each tube contains 50g.

Place approx. 38.4 grams, (1.3 oz.) of 'B118' grease in the crankcase, between the bevel gear and the wobble plate.

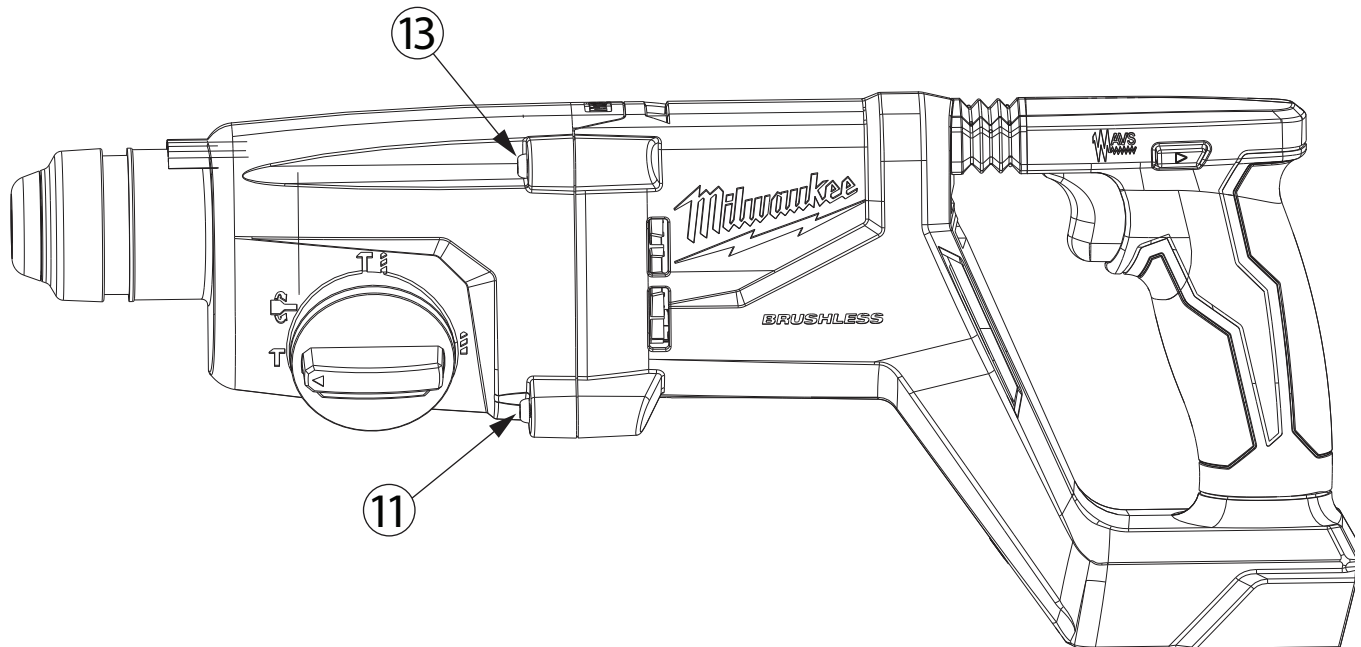
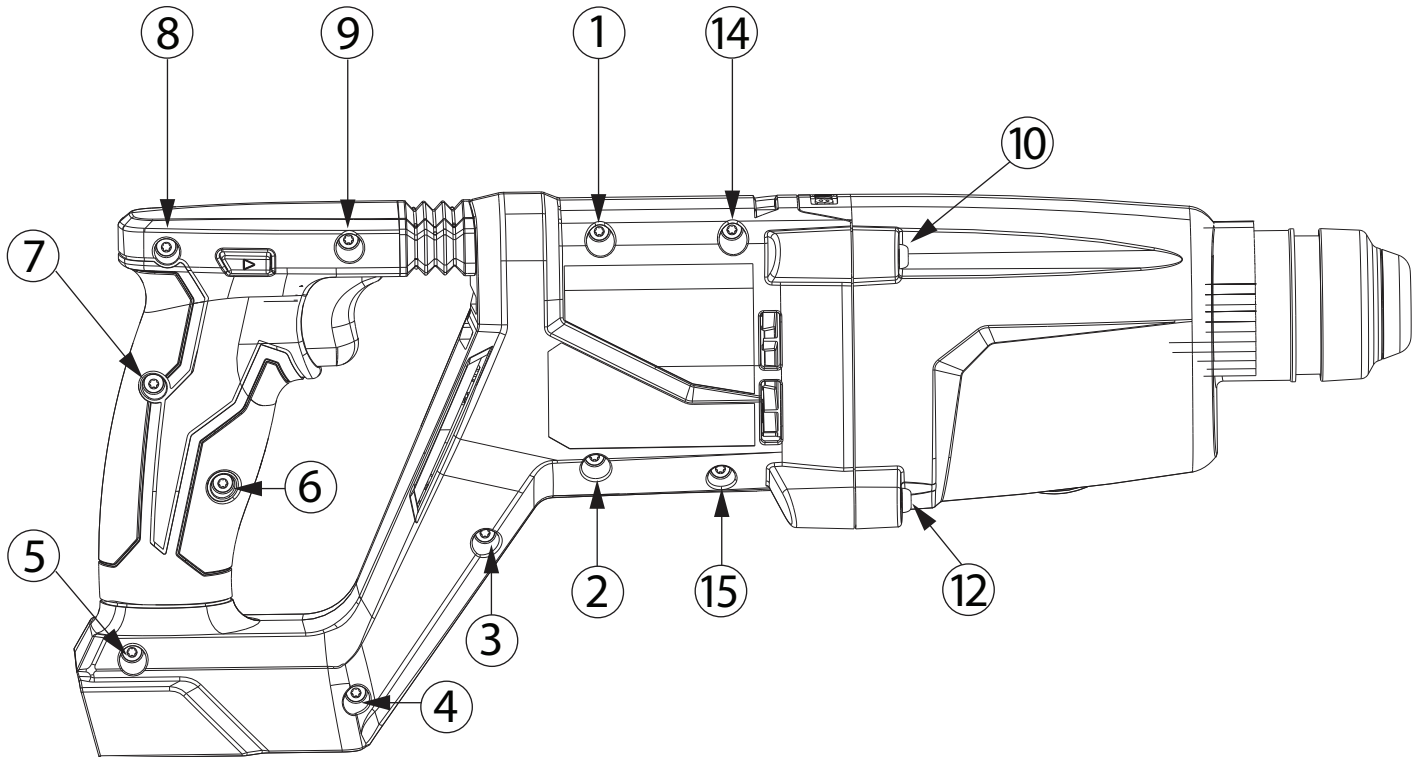


● Prior to reinstalling, clean gear assemblies with a clean, dry cloth. Lightly coat all parts highlighted here with "B118" grease. Apply a greater amount of grease to all internal and external gear teeth.

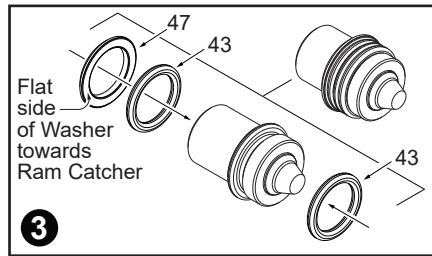
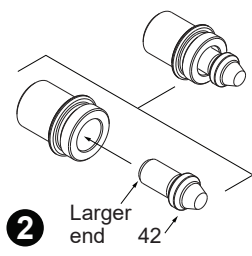
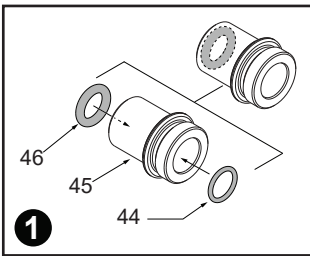
**SERVICE NOTES** on pages 3, 4 and 5 are included for general servicing of the tool and **ARE NOT** complete step by step instructions. →

# HOUSING COVER ASSEMBLY

NOTE - screw removal can be done in any order.



NOTE - Need to position the selector knob correctly.  
For the Screw Assembly and Disassembly, the Selector Knob needs to be in the "Drill Only Mode" as shown.



### Assembly of internal Spindle components:

1. Lubricate Ram Catcher (Anvil Sleeve) (45) and both O-Rings #44 and #46. Insert both O-Rings into Ram Catcher. NOTE - Both O-Rings need to be inserted into Ram Catcher BEFORE the Anvil (42) is inserted.

2. Insert the larger end of the Anvil (42) into the Ram Catcher.

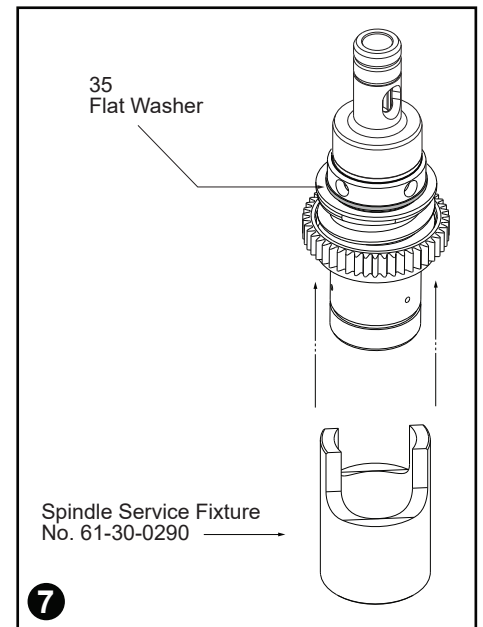
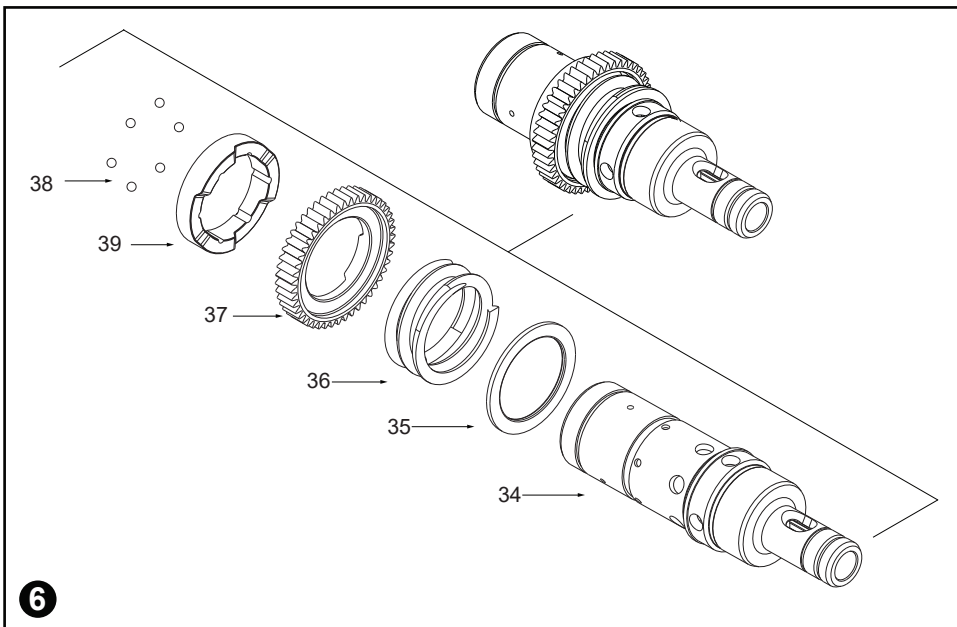
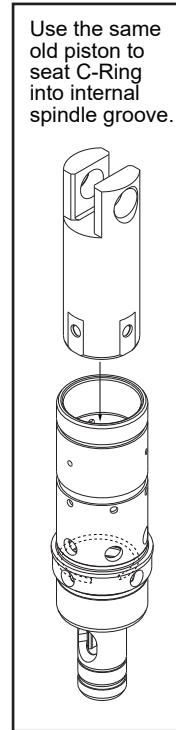
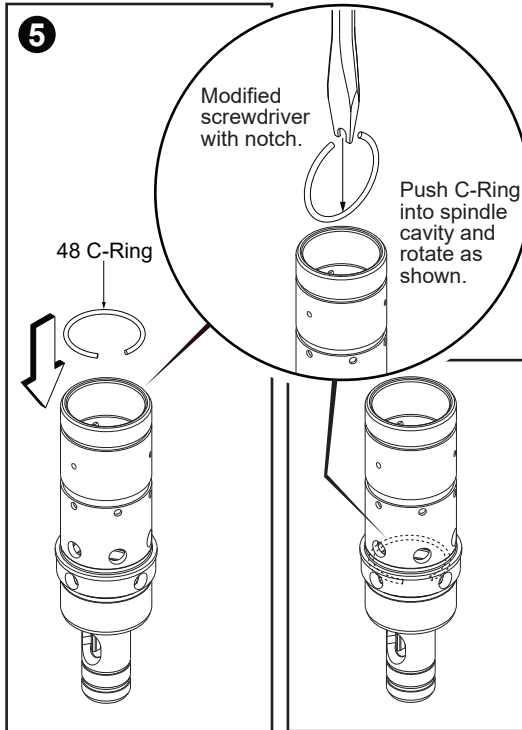
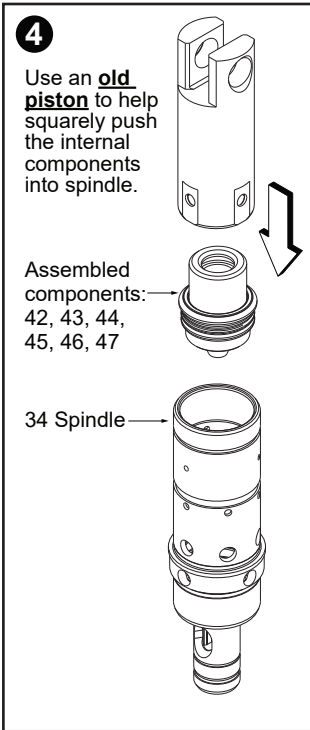
3. Assemble Bumper O-Ring (43) and Retaining Ring (47) onto the Ram Catcher. NOTE - The Flat Side of the Retaining Ring goes towards the Ram Catcher. There is a second O-Ring (43) that slides on the other end of the Anvil.

4. Place the assembled components from step 3 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 (48) 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.

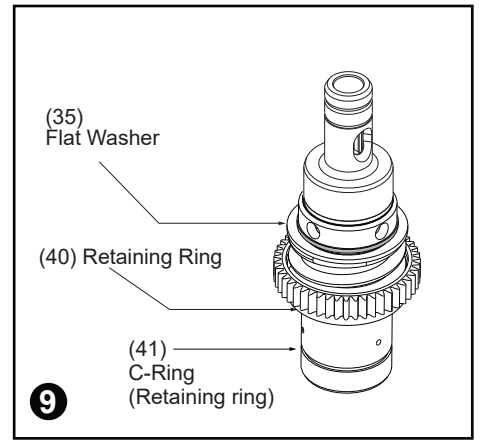
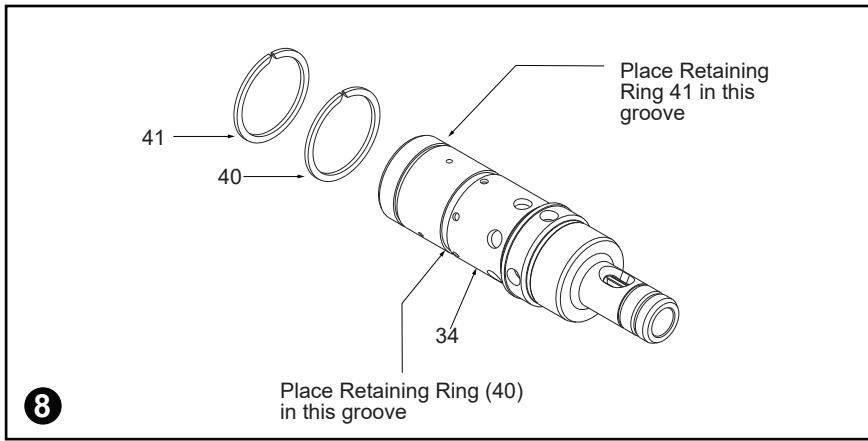


### Assembly of external Spindle components:

6. Slide the Flat Washer (stop disk) (35) onto the Spindle (34) from the rear (large end)

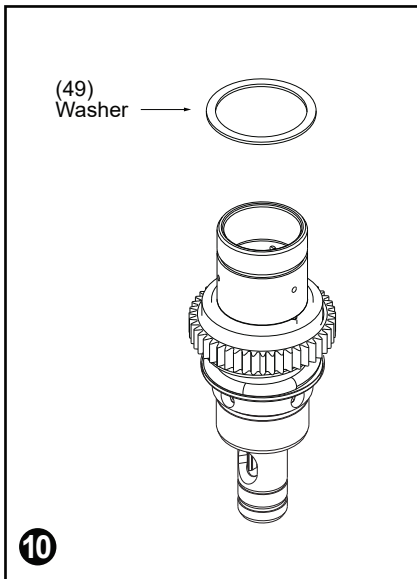
Slide the Spring (36) onto the piston next, followed by the 2nd Reduction Gear (37), then slide on Clutch Plate (39) onto the Spindle.

7. Use fixture 61-30-0290 to hold the Clutch Plate down slightly. The assembly fixture is used to press the Clutch Plate down slightly to allow access to the steel ball locations. The fixture will compress the spring.

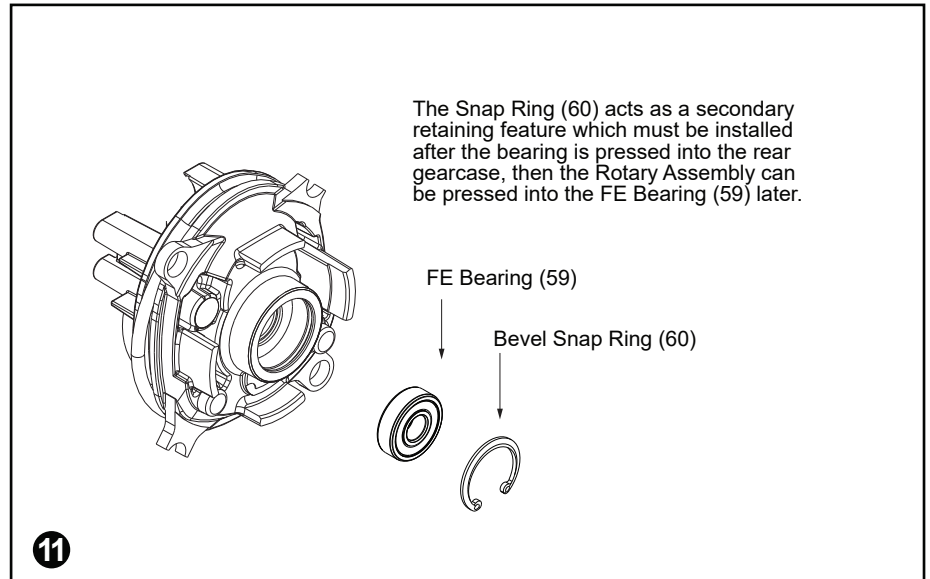


8-9. Place C-Ring (40) onto Spindle. With the aid of a snap ring pliers, work the C-Ring into the groove just behind the Clutch Plate (39).

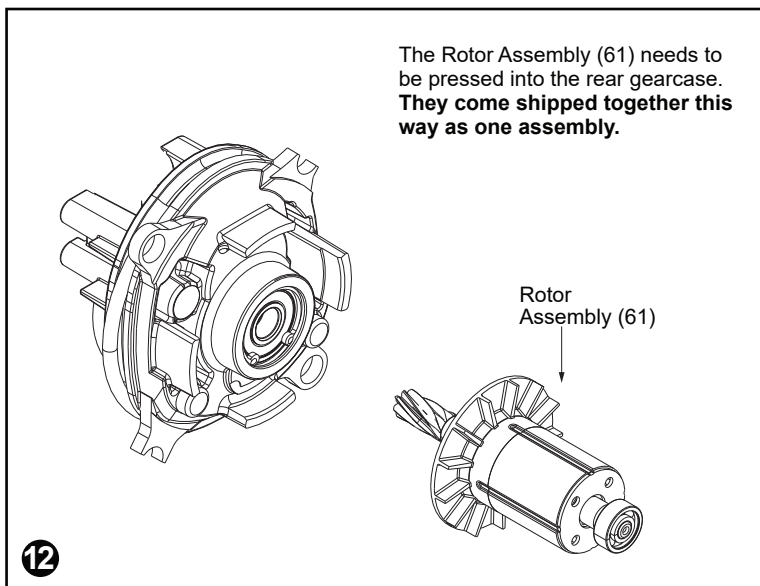
Place C-Ring (41) onto Spindle. With the aid of a snap ring pliers, work the C-Ring down to the rear most groove.

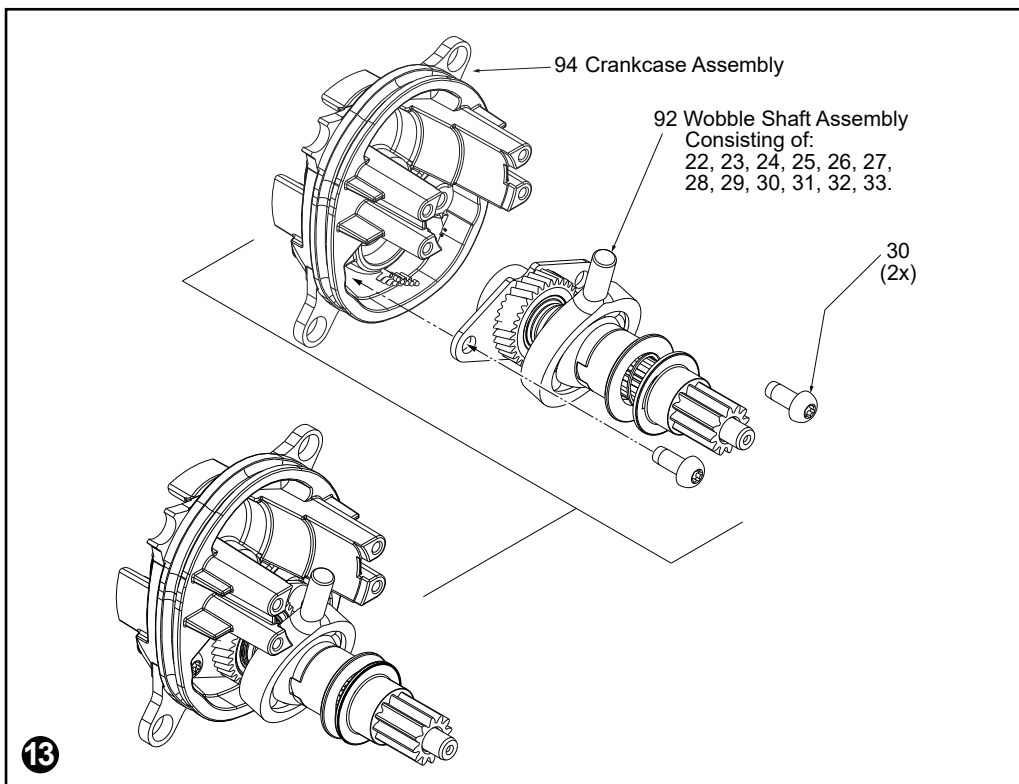


10. Place Washer (49) on after C-Ring (41).



11. Press the FE Bearing (59) into the rear gearcase. The Snap Ring (60) gets installed after the FE Bearing is in place.





### Mounting the Spindle Assembly onto the Crankcase Assembly

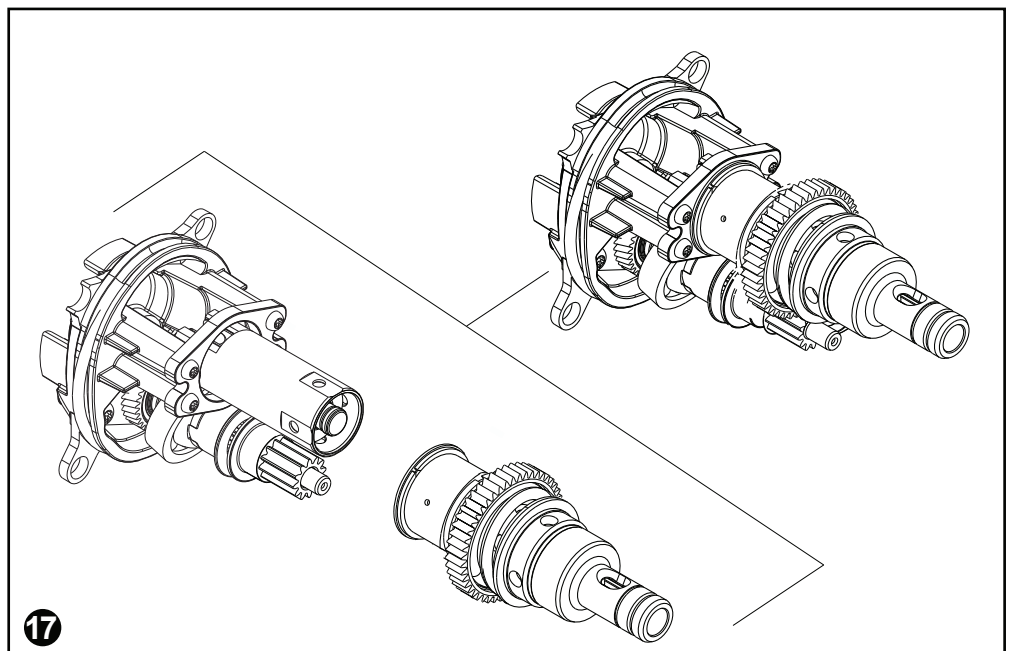
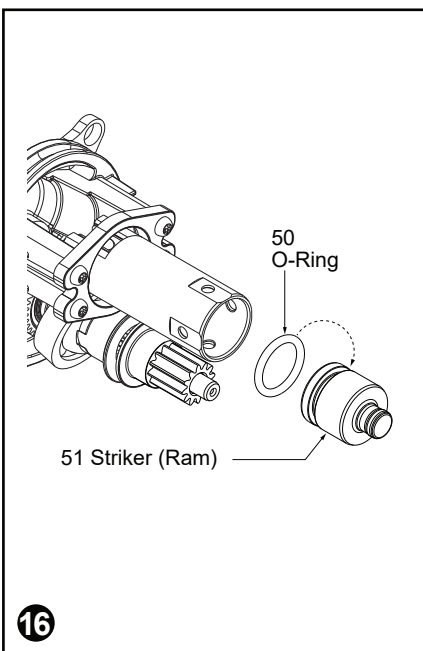
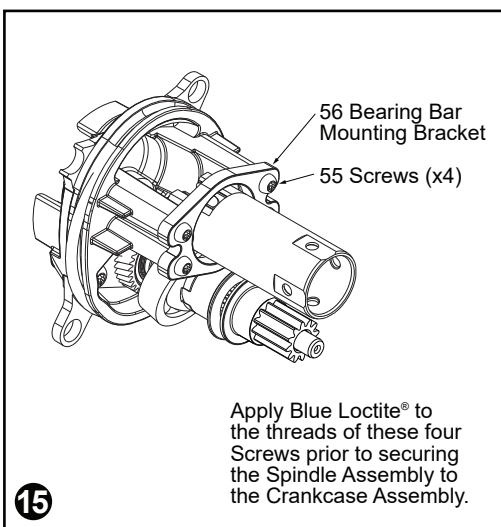
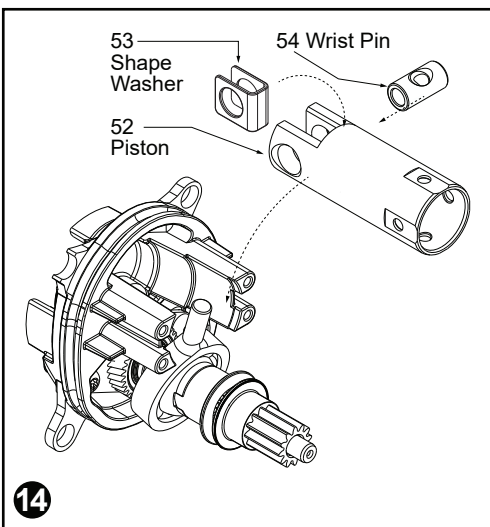
13. Lubricate the inside cavity of the Crankcase Assembly (94) with grease. Place Wobble Shaft Assembly into Crankcase Assembly as shown. Secure assembly with screws (30).

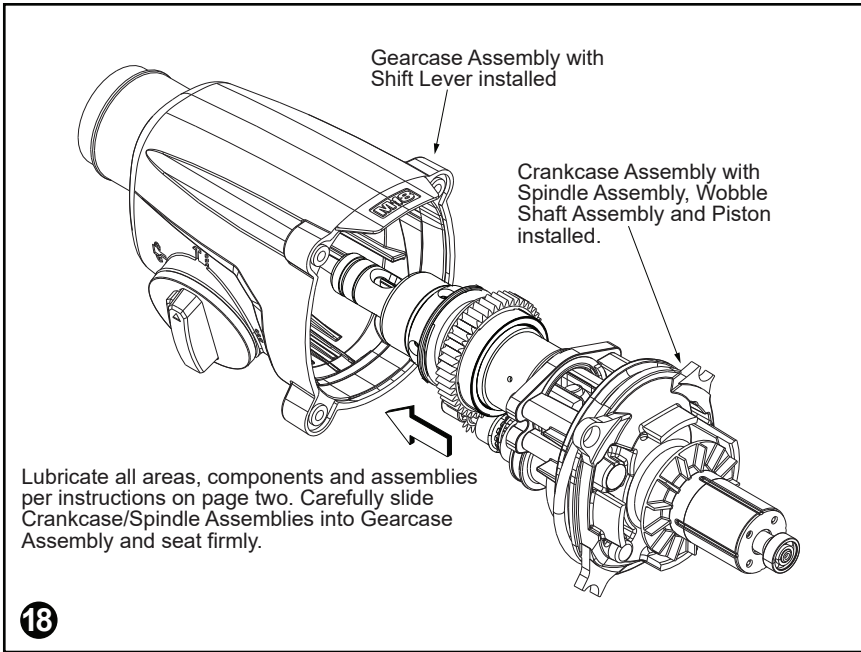
14. Place Washer (53) and Wrist Pin (54) into rear area of Piston (52). Connect the Piston Assembly to the Wobble Shaft Assembly by sliding the hole on the Wrist Pin over the arm on the Wobble Bearing.

15. Coat inside diameter of Bearing Bar Mounting Bracket with grease. Place onto the Crankcase Assembly (94). Use 4 Screws (55) to attach the Bearing Bar to the Crankcase Assembly. **NOTE:** Prior to installing screws, place a few drops of Blue Loctite® thread locking sealant to the threads.

16. Lubricate O-Ring (50) and Striker (Ram) (51). Be sure not to have any lubrication on the rear (flat side) of Striker. Place O-Ring onto Striker (51). Insert assembled parts into Piston (52) as shown.

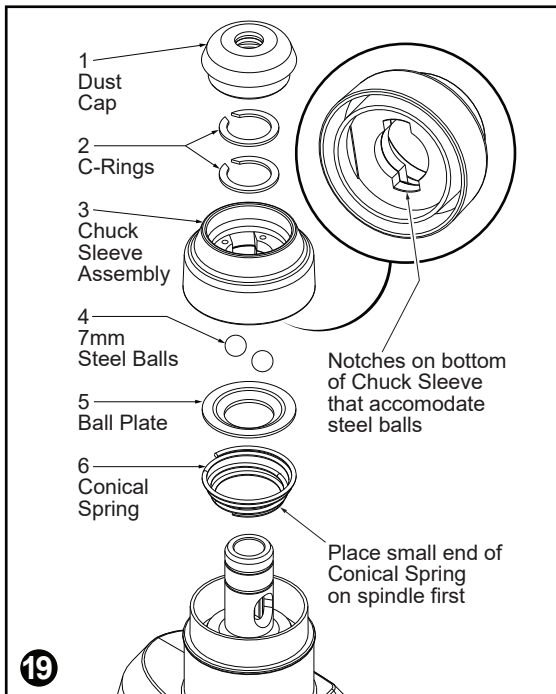
17. Mount the Spindle Assembly onto The Crankcase Assembly by inserting the Piston into the Spindle.



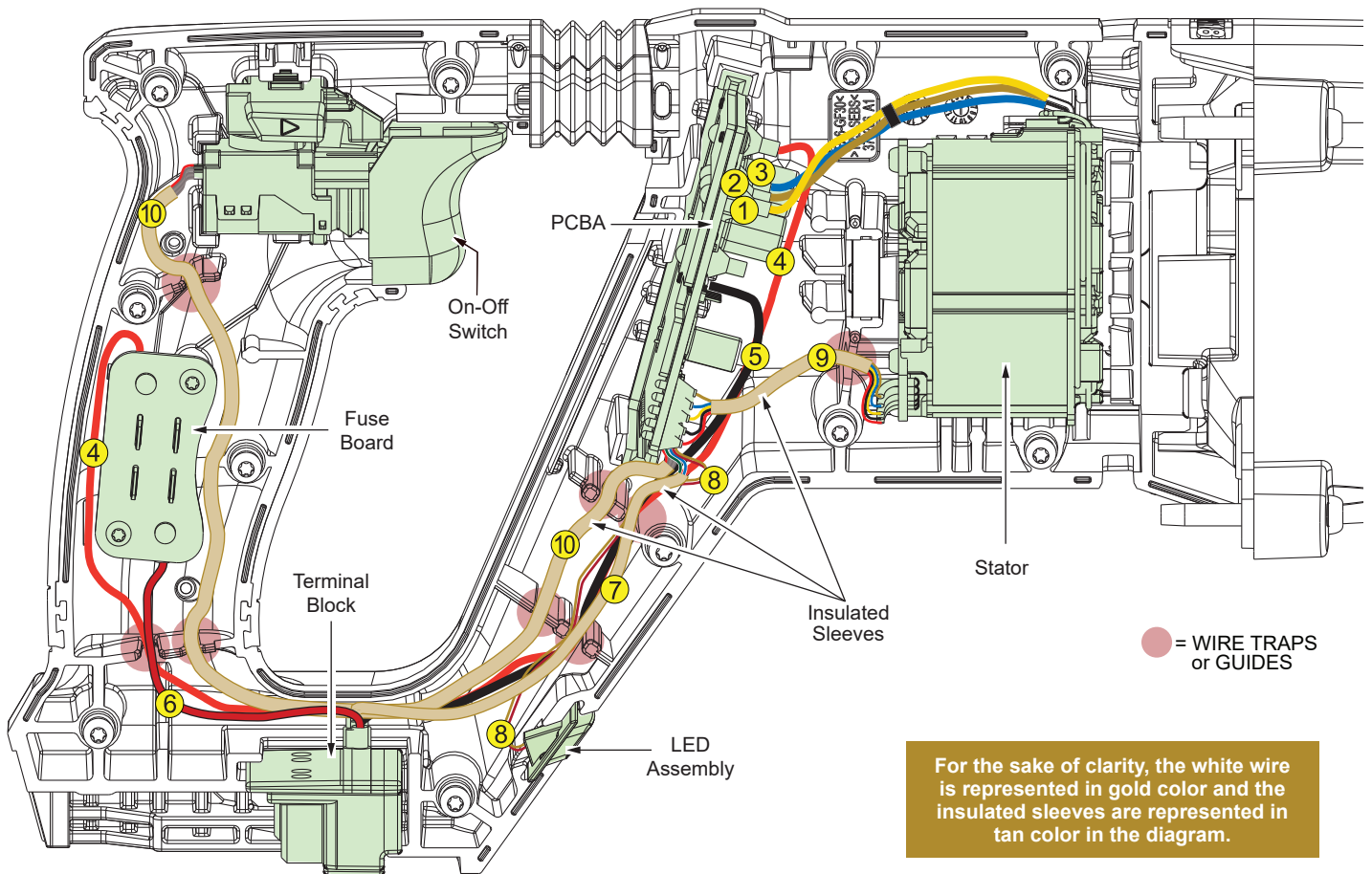


NOTE - Need to position the selector knob correctly. To insert the knob, the arrow must be pointed past the "drill only mode" and then pushed in, then rotated to the "hammer drill mode" for the rest of the install.

NOTE - When assembling the mechanism into the front housing, the **mode selector** needs to be in the hammer drill position.



# WIRING INSTRUCTIONS

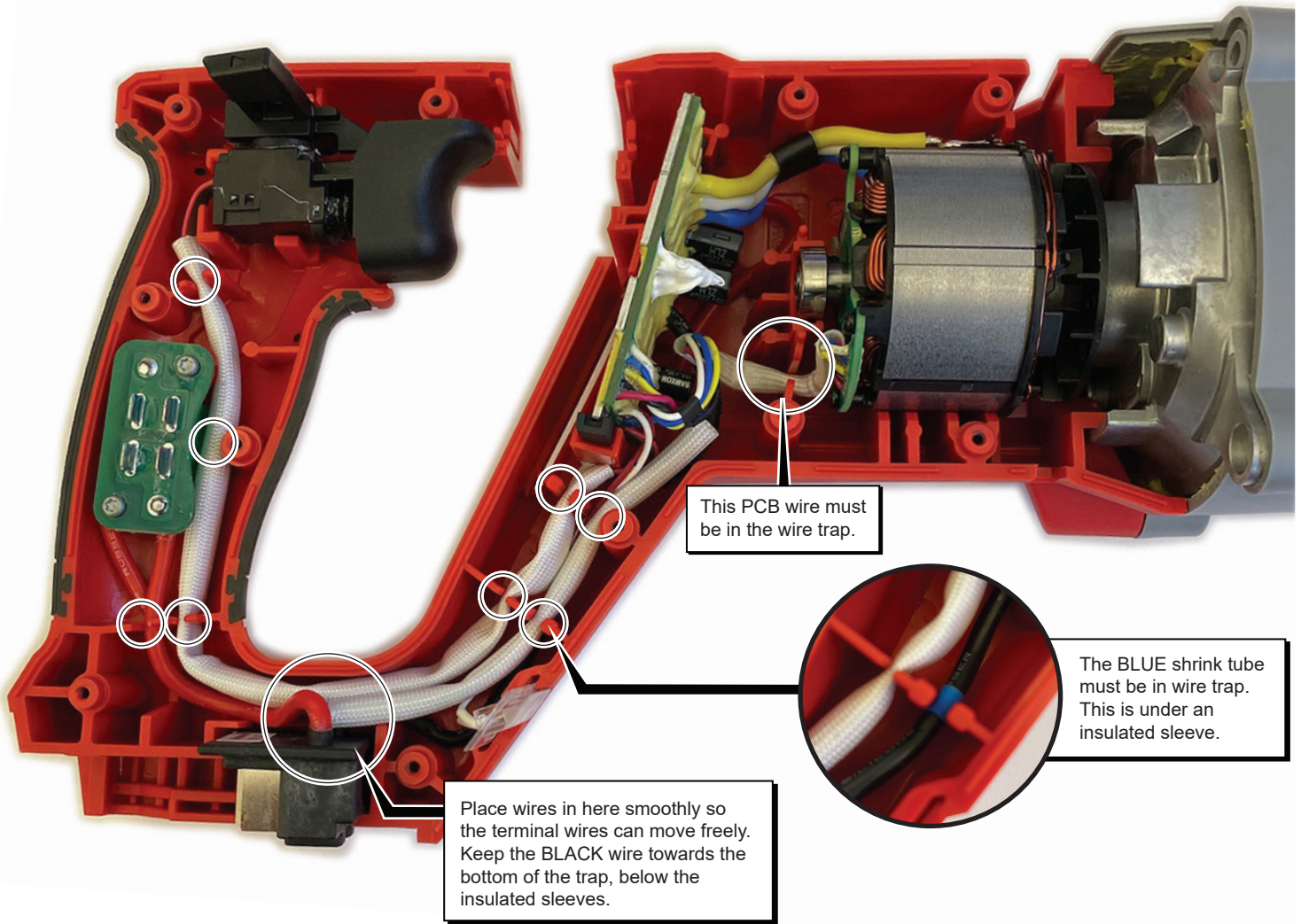


## WIRING SPECIFICATIONS

Wire No.	Wire Color	Length	Description
1	Yellow	60 +5/-0mm	Connect with Stator (Motor) and PCBA (Control Board)
2	White	60 +5/-0mm	Connect with Stator (Motor) and PCBA (Control Board)
3	Blue	60 +5/-0mm	Connect with Stator (Motor) and PCBA (Control Board)
4	Red	240 +5/-0mm	Connect with Fuse Board and PCBA (Control Board)
5	Black	150 +5/-0mm	Connect with Terminal Block and PCBA (Control Board)
6	Red	120 +5/-0mm	Connect with Terminal Block and Fuse Board
7	Blue	120 +5/-0mm	Connect with Terminal Block and PCBA (Control Board)
	Green	120 +5/-0mm	Connect with Terminal Block and PCBA (Control Board)
8	Red	90 +5/-0mm	Connect with LED Assembly and PCBA (Control Board)
	White	90 +5/-0mm	Connect with LED Assembly and PCBA (Control Board)
9	Red	110 +5/-0mm	Connect with PCBA (Control Board) and Stator (Motor)
	White	110 +5/-0mm	Connect with PCBA (Control Board) and Stator (Motor)
	Blue	110 +5/-0mm	Connect with PCBA (Control Board) and Stator (Motor)
	Black	110 +5/-0mm	Connect with PCBA (Control Board) and Stator (Motor)
	Yellow	110 +5/-0mm	Connect with PCBA (Control Board) and Stator (Motor)
10	Red	230mm	Connect with On/Off Switch and PCBA (Control Board)
	Gray	230mm	Connect with On/Off Switch and PCBA (Control Board)



# WIRING INSTRUCTIONS



This PCB wire must be in the wire trap.

Place wires in here smoothly so the terminal wires can move freely. Keep the BLACK wire towards the bottom of the trap, below the insulated sleeves.

The BLUE shrink tube must be in wire trap. This is under an insulated sleeve.

Route wires as shown being very careful to tuck all wires down into traps.

Be sure that all components of the electronics assembly are firmly and squarely seated in the housing support.

Be careful that there are no pinched wires when assembling housing cover. Check for proper switch and shuttle functionality before tightening all screws.

## ●14-46-0283

### Rotary Hammer Service Kit

-----	M3.5 PH T-10 Screw	1
-----	O-Ring	1
22 44-90-1180	Steel OD	1
30 -----	Taptite Screw	2
33 44-86-0305	Retaining Ring	1
38 -----	Steel Ball	6
40 -----	Retaining Ring	1
41 -----	Retaining C-Ring	1
43 34-40-0207	Bumper Ring	2
44 34-40-0013	O-Ring	1
46 34-40-0208	O-Ring	1
48 -----	Anvil Snap Ring	1
50 34-40-1511	O-Ring	1
55 05-81-1337	M14 Screw	4
57 43-44-4375	O-Ring	1
63 43-84-0300	Felt Plug	1
65 -----	Taptite Screw	4
68 -----	Taptite Screw	2
69 05-88-1525	St Screw	4
75 -----	St Screw	11
49-08-5355	Type GE 00 Urethyn Grease	
	2.8 oz Tube	8.7 G
45-00-0230	Grease B118	81 G

### SCREW TORQUE SPECIFICATIONS

FIG.	PART NO.	WHERE USED	SEAT TORQUE	
			(kgf-cm)	(lb-in)
30	05-74-1030	Wobble Shaft Assembly	34.5-41.5	30-36
55	05-81-1337	Bearing Bar - part #56	15-20	13-17.3
65	-----	PCB and Stator Assembly	3.5-4.5	3-3.9
68	-----	PCB and Stator Assembly	4-5	3.5-4.3
69	05-88-1525	Housing Kit	19.5-24.5	17-21.3
75	-----	Housing Kit	9-13	7.8-11.3