SERVICE PARTS LIST

BULLETIN NO. 54-24-2721

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS	REVISED BULLETIN	DATE
M18™ FUEL™ 1" SDS Plus Rotary Hammer	54-24-2720	Oct. 2019
CATALOG NO. 2712-20 STARTING SERIAL **G17B**	WIRING INSTRUCTION **SEE PAGE 6**	

EXAMPLE: 00 / 0
Component Parts (Small #) Are Included When Ordering The Assembly (Large #).

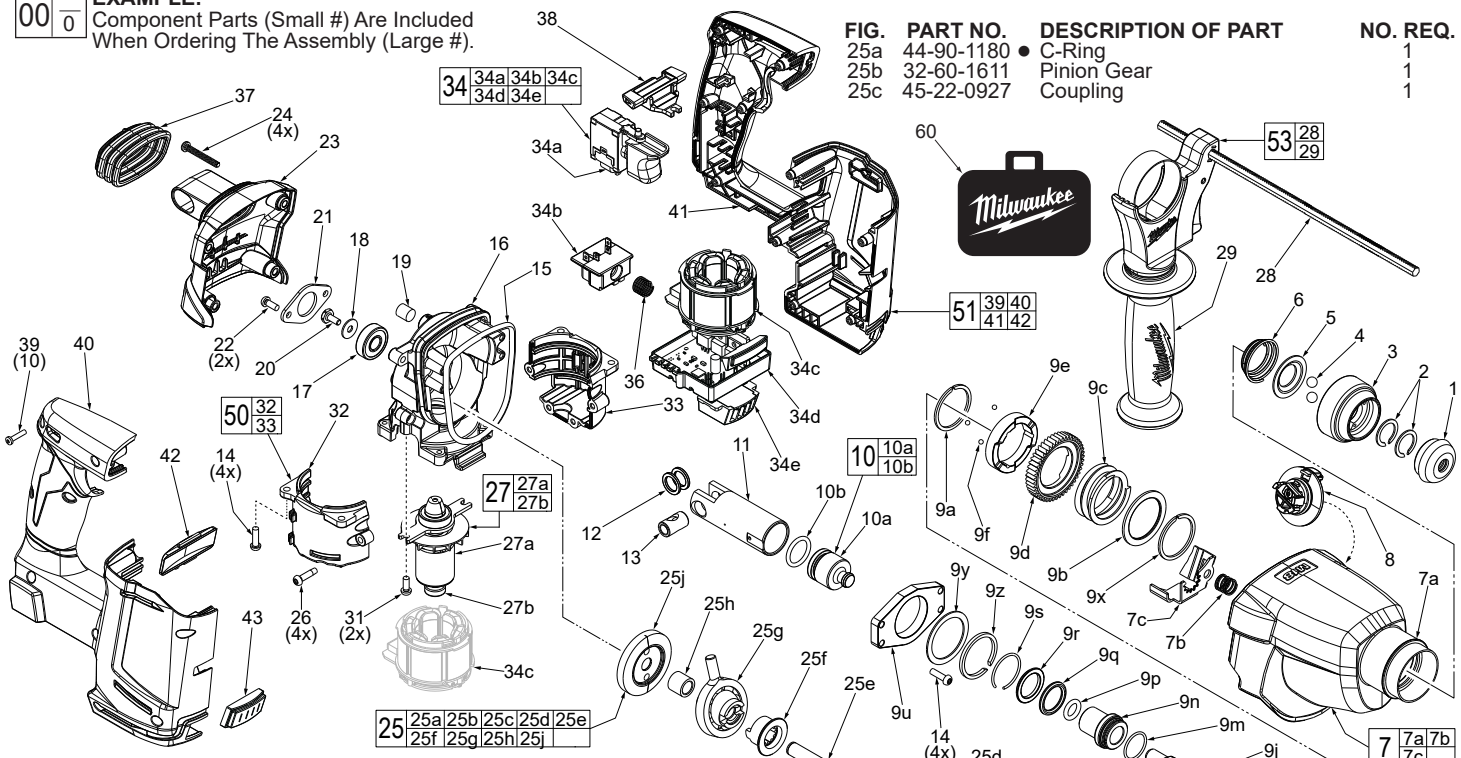


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
25a	44-90-1180 ●	C-Ring	1
25b	32-60-1611	Pinion Gear	1
25c	45-22-0927	Coupling	1

●= Components of the **14-46-2712** Rotary Hammer Service Kit
(See page six for a complete listing)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	42-52-5262 ●	Dust Cap	1
2	44-90-0014 ●	C-Ring	2
3	42-76-5264 ●	Chuck Sleeve Assembly	1
4	02-02-0275	7mm Steel Ball	2
5	42-36-0191	Ball Plate	1
6	40-50-5262	Conical Spring	1
★ 7	31-40-0603	Gearcase Assembly	1
7a	----------	Gearcase with Bearings and Seal	1
7b	40-50-0870	Spring	1
7c	44-90-1011	Locking Plate	1
8	44-10-5263	Shift Lever with O-Ring	1
★ 9	45-22-0852	Spindle Sleeve Assembly	1
9a	44-90-0216 ●	C-Ring	1
9b	45-88-2115	Washer	1
★ 9c	40-50-1721	Clutch Spring	1
9d	32-75-1831	2nd Stage Gear	1
★ 9e	42-70-0782	Clutch Plate	1
9f	02-02-1230	Steel Ball	3
★ 9g	38-50-0034	Spindle	1
★ 9h	43-06-0032	Brake Ring	1
★ 9j	34-40-0013 ●	O-Ring	1
★ 9k	45-08-0021	Striker (Anvil)	1
9m	34-40-1425 ●	O-Ring	1
★ 9n	45-22-0011	Sleeve (Ram Catcher)	1
★ 9p	34-40-0018 ●	O-Ring	1
9q	34-40-1440 ●	O-Ring	1
9r	42-76-1001	Washer	1
9s	44-90-1026 ●	C-Ring	1
★ 9u	42-36-2192	Bearing Bar Mounting Bracket	1
★ 9x	44-90-0215 ●	C-Ring	1
★ 9y	45-88-0026 ●	Washer	1
★ 9z	44-90-0215 ●	C-Ring	1
★ 10	45-56-0037	Striker and O-Ring Assembly	1
10a	----------	Striker (Ram)	1
10b	34-40-1511 ●	O-Ring	1
11	44-62-5263	Piston	1
12	45-88-5200 ●	Washer	2
★ 13	44-60-0033	Wrist Pin	1
14	05-81-1337 ●	M4 x 14mm Pan Hd. Taptite Screw	8
15	43-44-1375 ●	Gasket	1
★ 16	31-15-0303	Crankcase	1
17	02-04-5386	Ball Bearing	1
18	45-88-1337	Washer	1
19	43-84-0300 ●	Felt Plug	1
20	05-74-1020 ●	9mm Hex Screw	1
21	42-92-1626	Bearing Retainer	1
22	05-81-1338 ●	M4 x 10mm Screw	2
23	31-15-1301	Gear Housing Cover	1
24	05-88-1525 ●	M4 x 30mm Pan Hd. T-20 Screw	4
25	14-73-1602	Wobble Shaft Assembly	1

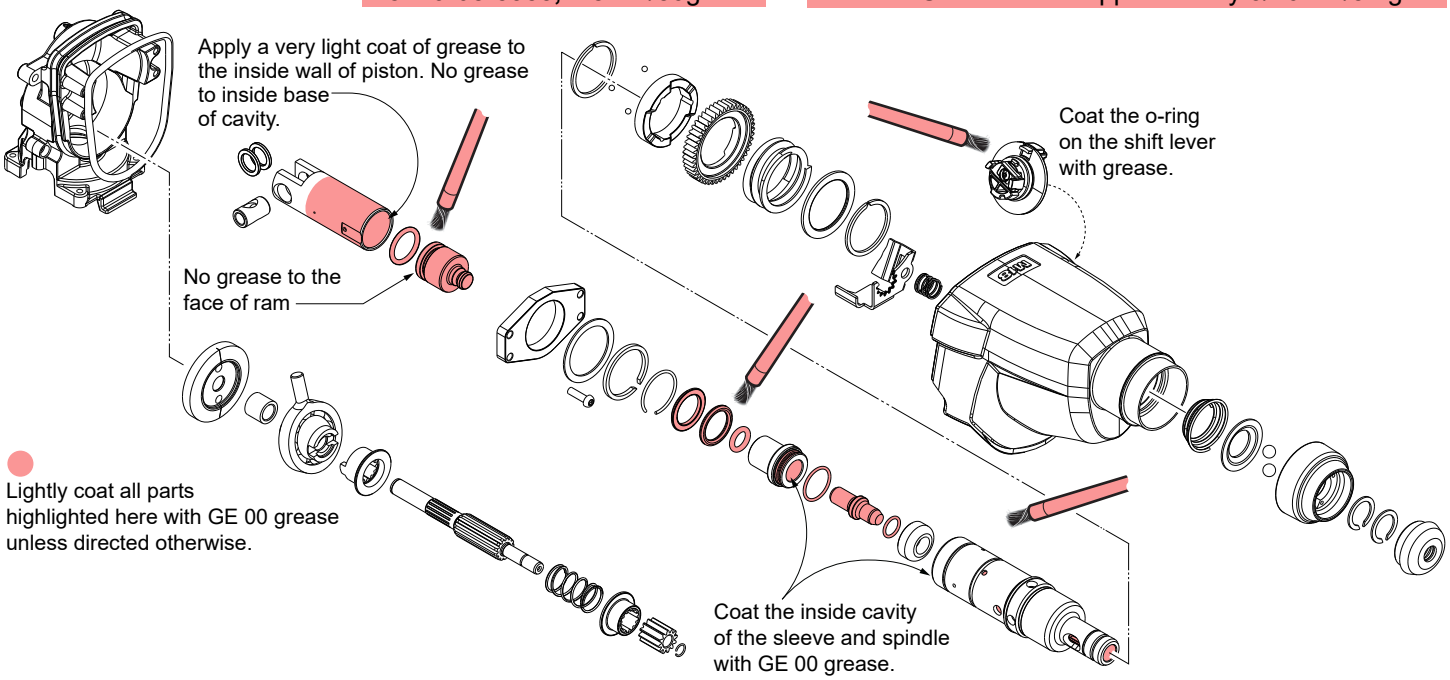
FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
25d	40-50-2141	Spring	1
★ 25e	36-66-1622	Reduction Gear Shaft	1
25f	45-22-0926	Coupling Sleeve	1
★ 25g	36-92-5263	Wobble Plate	1
25h	45-36-1826	Spacer	1
25j	32-05-0627	Bevel Gear	1
26	06-82-3006	M4 x 18mm Screw	4
27	16-07-2712	Rotor Assembly	1
27a	----------	Rotor	1
27b	02-04-0033	Ball Bearing	1
28	44-94-5381	Depth Gauge	1
29	14-34-0650	Auxiliary Side Handle	1
★ 31	05-81-0266	M4 x 8mm Screw	2
32	----------	Motor Housing Cover - Right	1
33	----------	Motor Housing Support - Left	1
34	14-20-2712	Electronics Assembly	1
34a	----------	Switch	1
34b	----------	Battery Terminal Connector Block	1
34c	----------	Stator	1
34d	----------	PCBA with LED	1
34e	----------	Terminal Connector	1
36	40-50-1090	Terminal Spring	1
37	43-87-0150	Bellows	1
38	45-24-1021	Forward/Reverse Shuttle	1
39	06-82-1080 ●	M3 x 14mm Pan Hd. Plastite Screw	10
40	----------	Handle Cover - Right Halve	1
41	----------	Handle Support - Left Halve	1
42	----------	FUEL™ Housing Plate	1
43	42-28-2712	Terminal Cover	1
50	31-50-2712	Motor Housing Assembly	1
51	31-44-2712	Handle Assembly	1
53	14-46-1450	Side Handle Assembly	1
56	12-20-0053	Service Nameplate (Not Shown)	1
60	42-55-0085	Carrying Case for 2712-20 Tool Only and 2712-22 Kit	1
60	42-55-0095	Carrying Case for 2712-22DE Tool with Dust Extractor	1

MILWAUKEE ELECTRIC TOOL CORPORATION
13135 W. Lisbon Road, Brookfield, WI 53005
Drwg. 1

LUBRICATION NOTES:

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

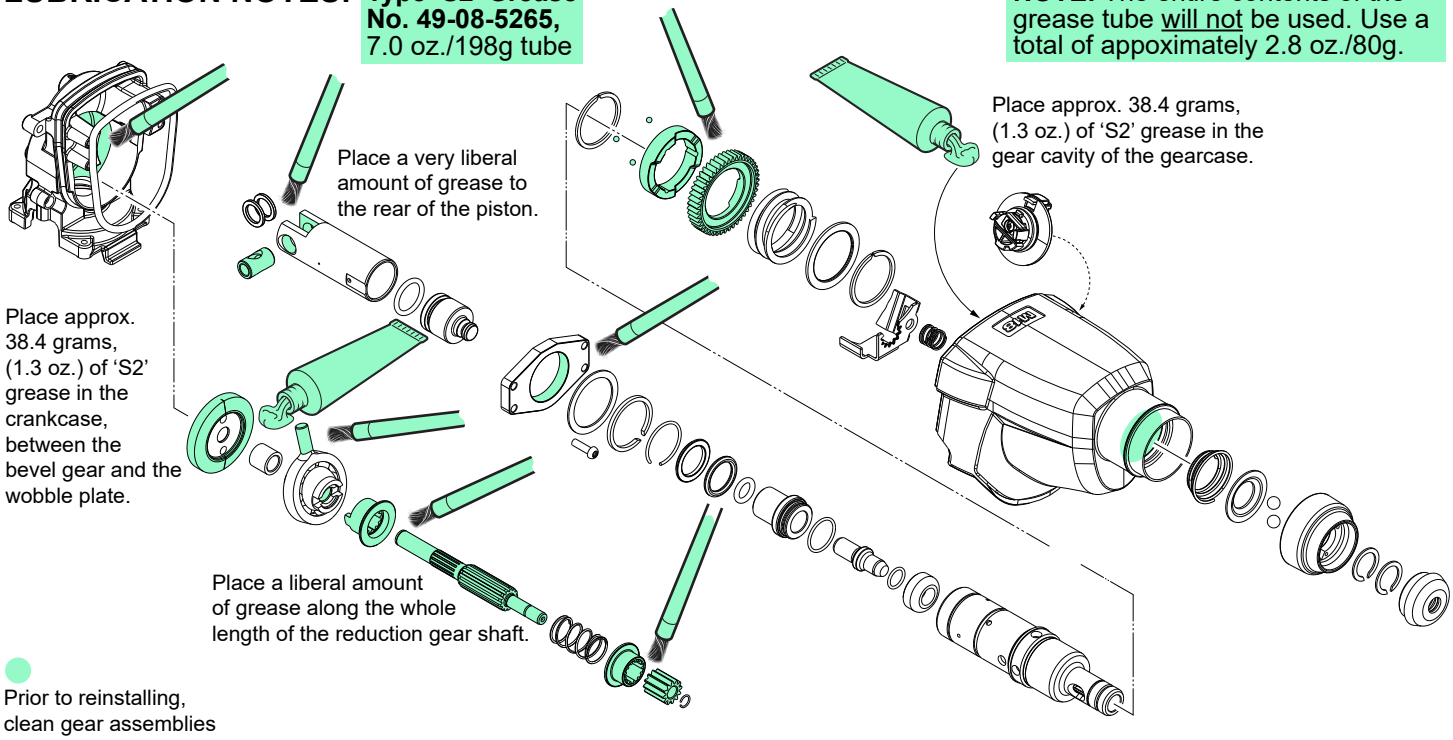
NOTE: The entire contents of the grease tube will not be used. Use a total of appoximately 3/16 oz./5.4g.



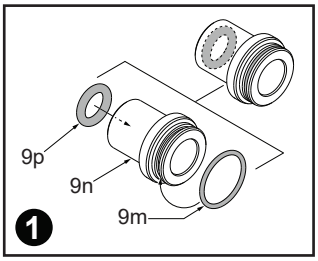
LUBRICATION NOTES:

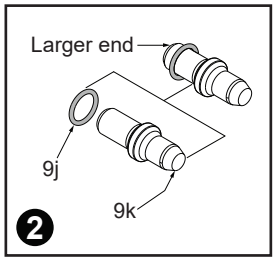
Type 'S2' Grease No. 49-08-5265, 7.0 oz./198g tube

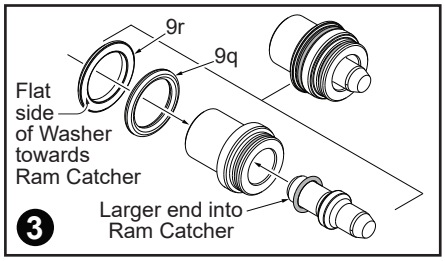
NOTE: The entire contents of the grease tube will not be used. Use a total of appoximately 2.8 oz./80g.

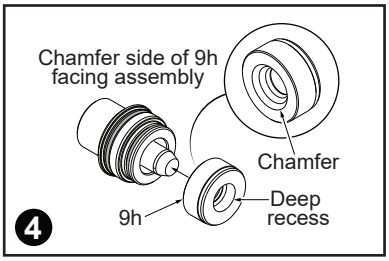


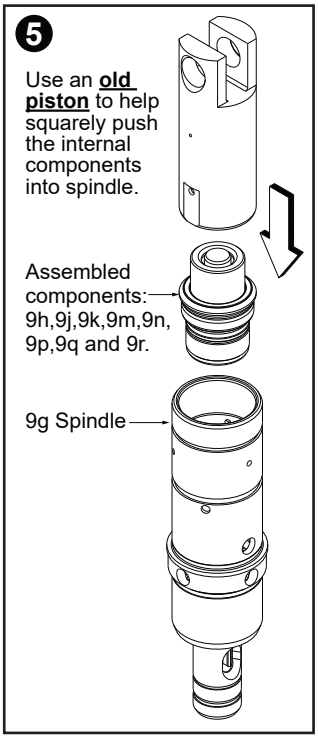
SERVICE NOTES on pages 3, 4 and 5 are included for general servicing of the tool and ARE NOT complete step by step instructions.

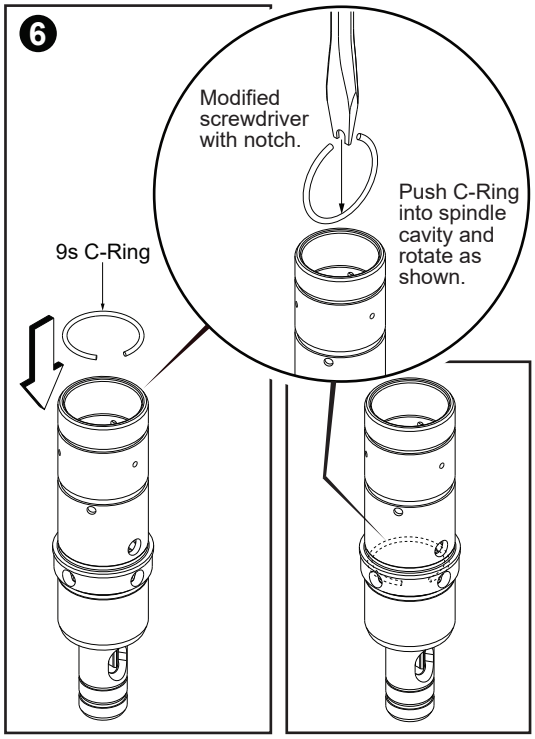


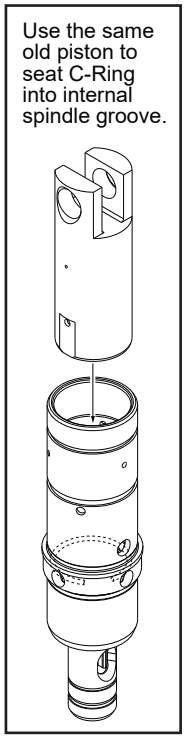






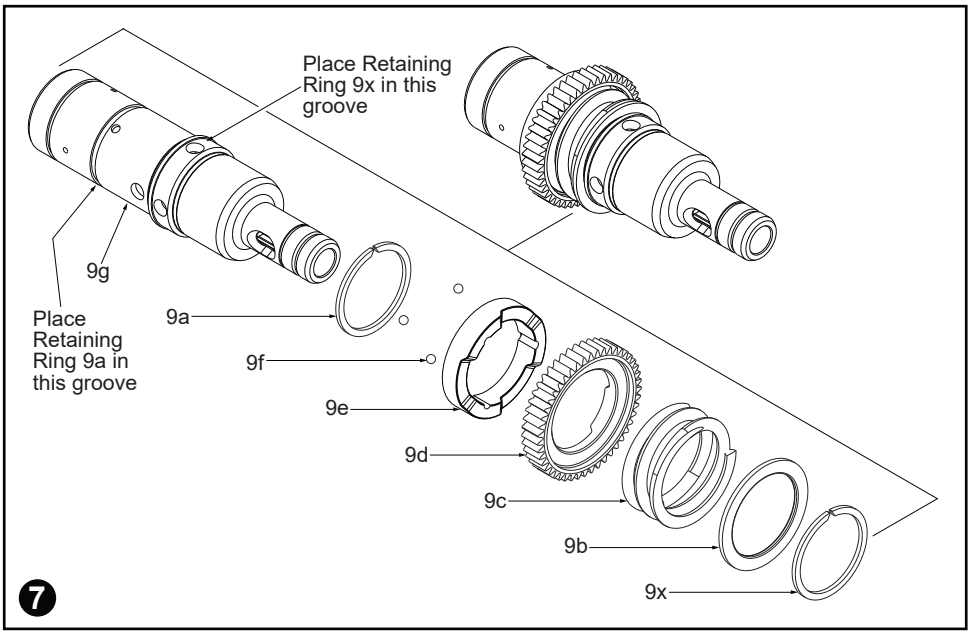


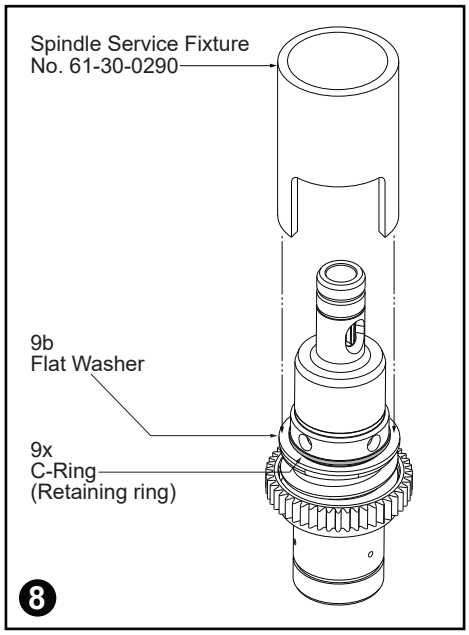




Assembly of internal Spindle components:

1. Lubricate Ram Catcher and O-Rings. Assemble O-Rings onto and into Ram Catcher.
2. Lubricate Striker and O-Ring. Assemble O-Ring onto Striker.
3. Assemble Striker Assembly into Ram Catcher Assembly (large end into Ram Catcher as shown).
4. Place the chamfered end of the Stop Washer over the small end of the Striker.
5. 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.
6. C-Ring (9s) 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:

7. Place C-Ring 9a 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 three Steel Balls 9f into the three small holes on the Spindle just above the previously installed C-Ring.

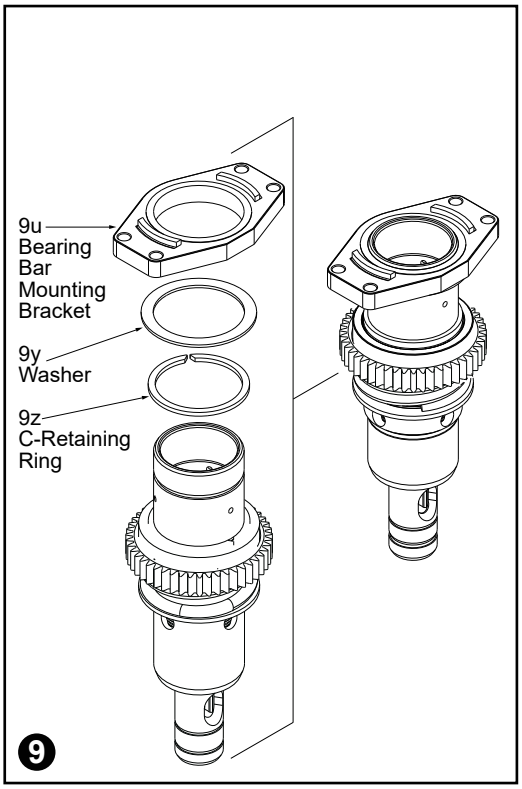
   Lubricate and install the Clutch Plate 9e onto the Spindle. Be sure to orient the part as shown and position with the three notches on the back of the plate over the three steel balls.

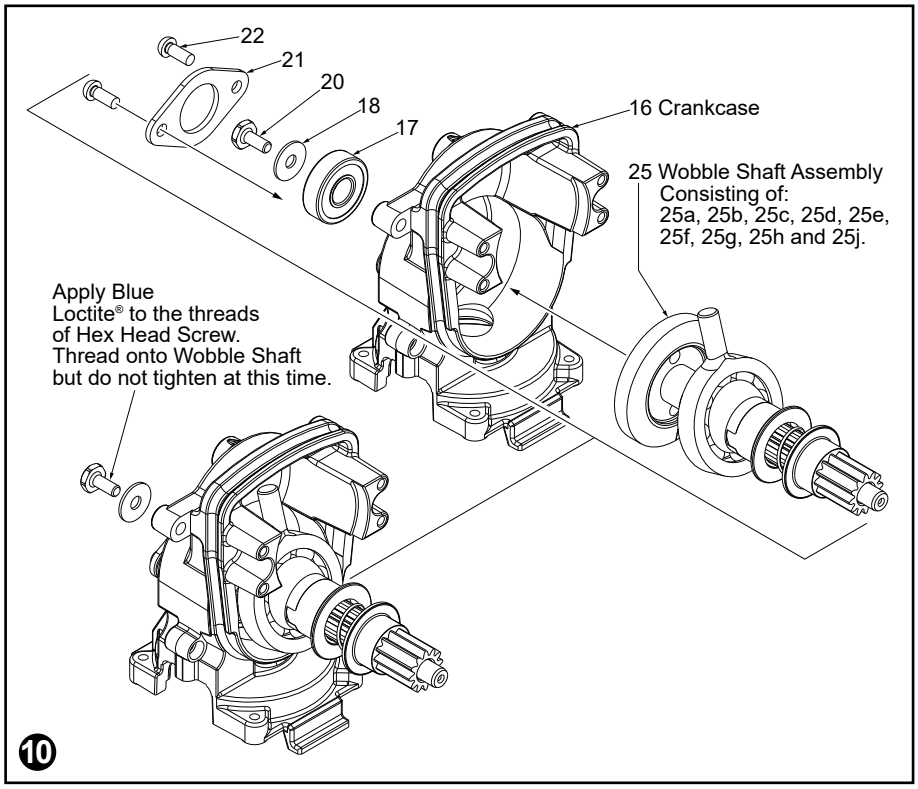
   Lubricate and install the Clutch Gear 9d. Place the Clutch Spring 9c over the Clutch Gear and the Washer 9b over the Spring.

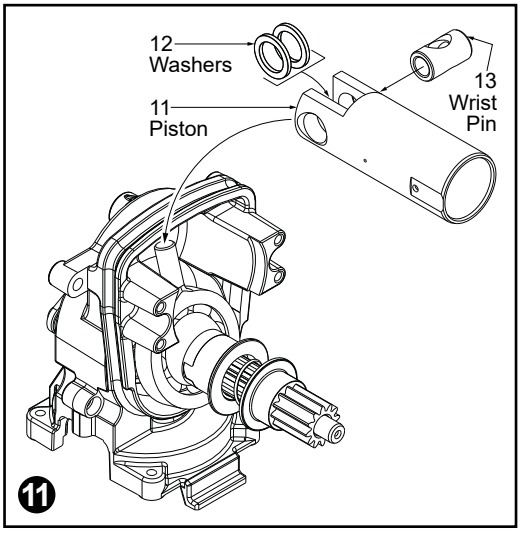
   Place C-Ring 9x onto Spindle. With the aid of a snap ring pliers, work the C-Ring down to the other parts assembled onto spindle.

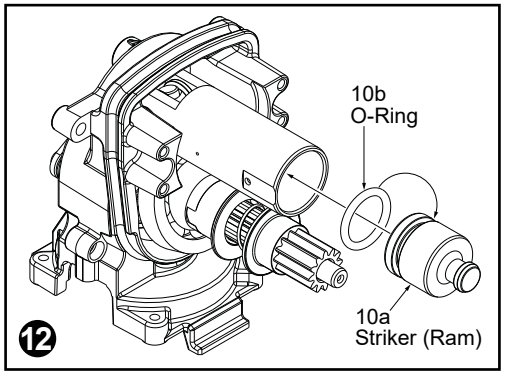
8. Place Spindle Service Fixture 61-30-0290 over the assembled parts and the spindle. Position so the fixture rests on Flat Washer 9b. Place the fixture and spindle assembly in an arbor press and carefully compress the Clutch Spring enough to expose the spindle groove for C-Ring 9x.

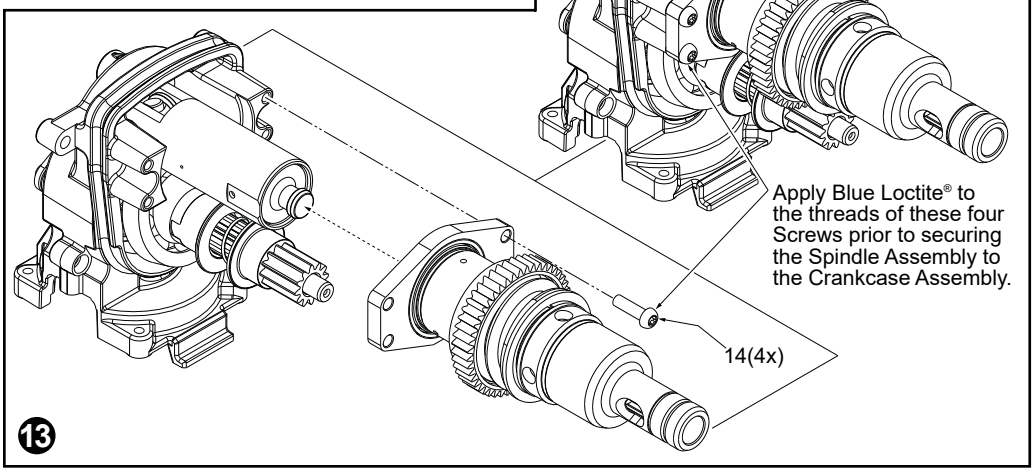
   While compressed, use a screwdriver to work C-Ring 9x into the groove.











9. Place flat side of the Bearing Bar 9u downward. Next place the Washer 9y on top of the Bearing Bar and secure with Spiral Retaining Ring 9z.

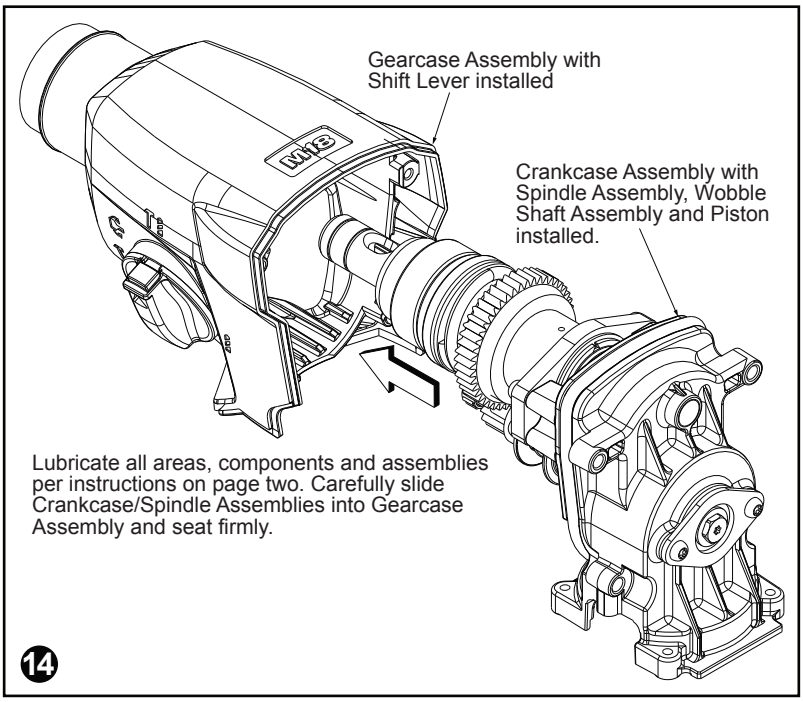
Mounting the Spindle Assembly onto the Crankcase Assembly

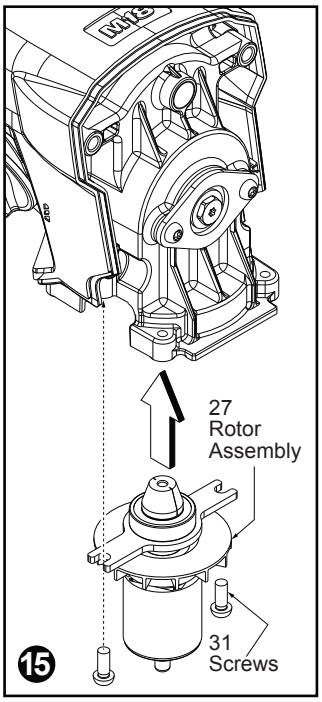
10. Lubricate the inside cavity of the Crankcase Assembly 54 with grease. Place Wobble Shaft Assembly into Crankcase Assembly as shown. Use 9mm Hex Head Screw 20 to secure Wobble Shaft Assembly to Crankcase Assembly. **NOTE:** Prior to installing screw, place a few drops of Blue Loctite® thread locking sealant to the threads. At this time, DO NOT tighten screw completely.

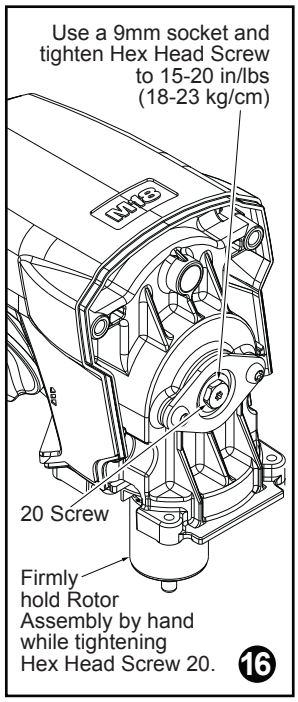
11. Place Washers 12 and Wrist Pin 13 into rear area of Piston 11. While holding those parts in place, be sure the Washers are separated, one on each side of the hole in the Wrist Pin. Connect the Piston Assembly to the Wobble Shaft Assembly by sliding the hole on the Wrist Pin over the arm on the wobble bearing.

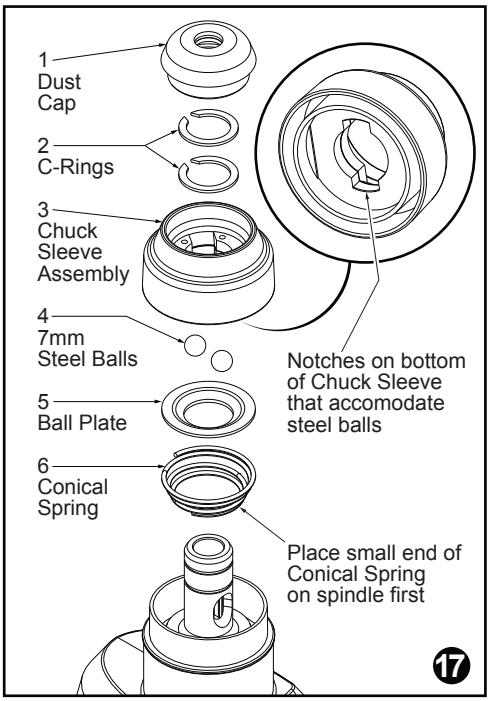
12. Lubricate O-Ring 10b and Striker (Ram) 10a. Be sure not to have any lubrication on the rear (flat side) of Striker. Place O-Ring onto Striker 10a. Insert assembled parts into Piston 11 as shown.

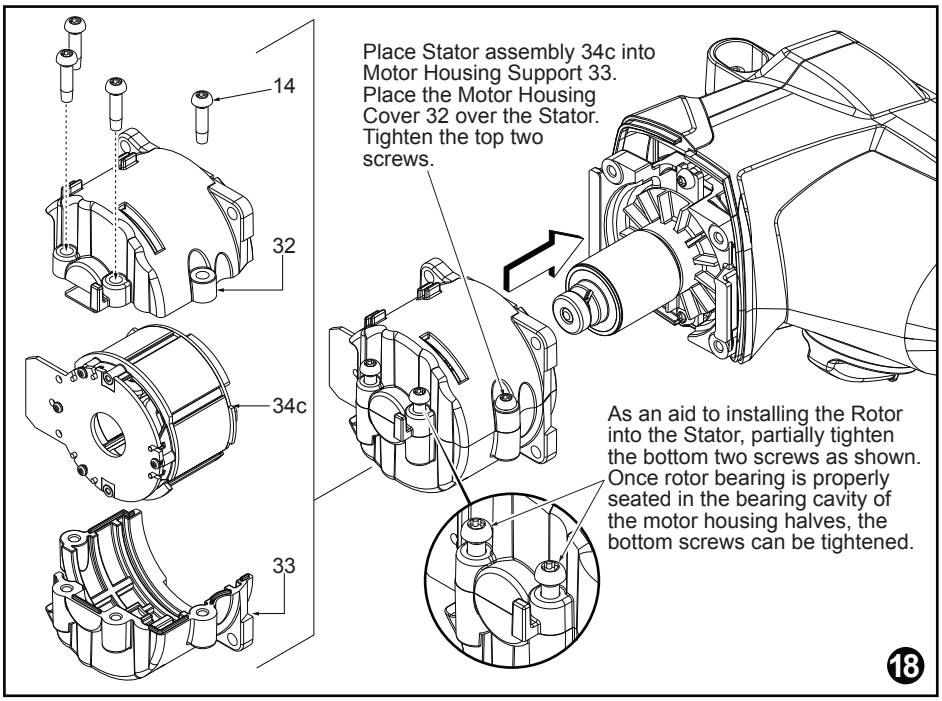
13. Mount the Spindle Assembly onto The Crankcase Assembly by inserting the Piston into the Spindle. Use four Screws to secure the Spindle Assembly to the Crankcase Assembly. **NOTE:** Prior to installing screws, place a few drops of Blue Loctite® thread locking sealant to the threads.











14. Install the Crankcase / Spindle Assembly into the Gearcase Assembly while following the lubrication instructions on page two.

15. 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).

16. The Hex Head Screw 20 on the back of the crancase can now be tighten. Use a 9mm socket on the screw While holding the Rotor firmly by hand. Torque to 15-20 in/lbs (18-23 kg/cm).

17. Install the front components onto the Spindle.

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

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

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

    Place the Chuck Sleeve Assembly 3 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.

17. 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.

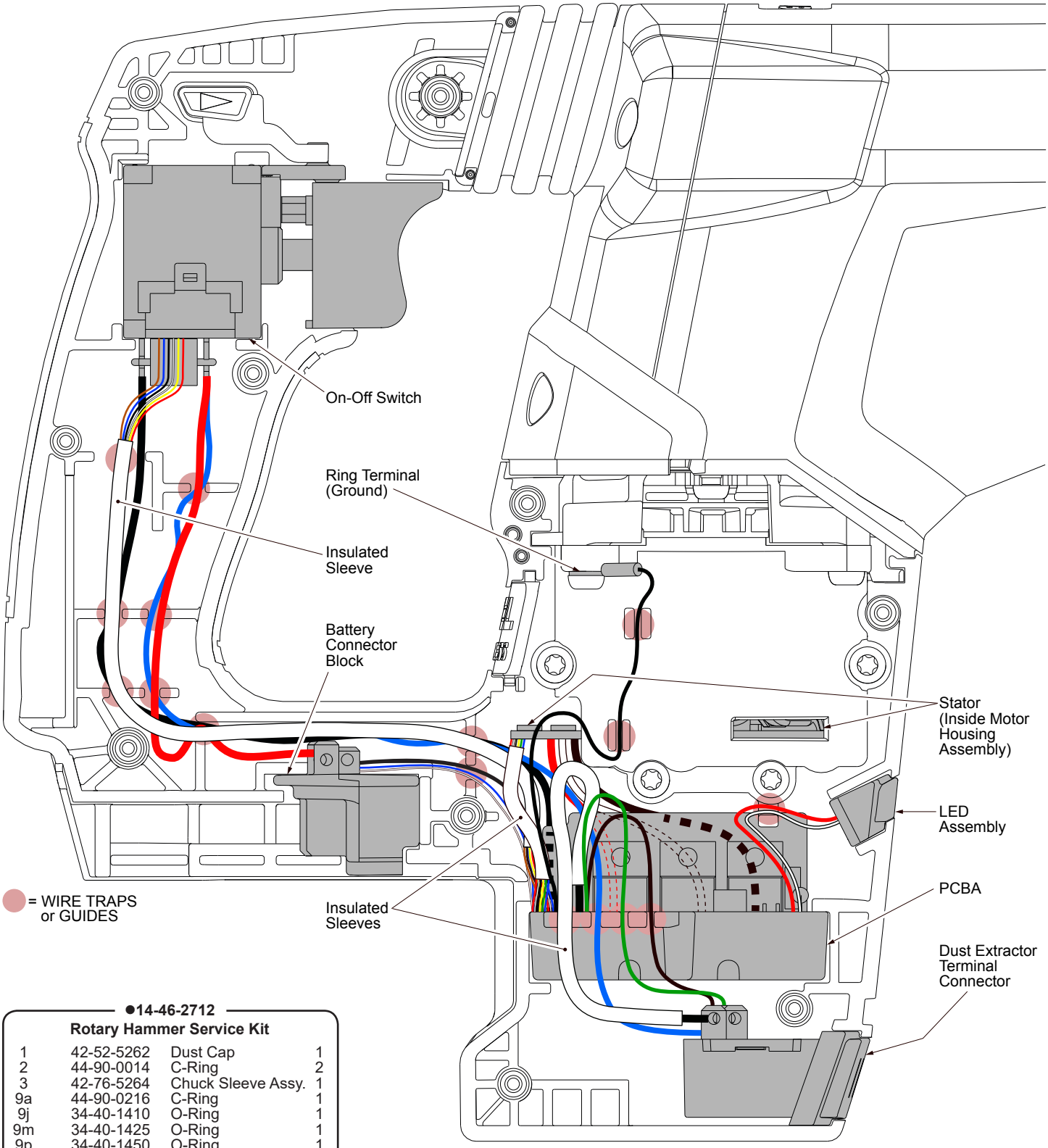
    Place the Dust Cap 1 over the front of the Spindle and that last C-Ring. Once again check that the Chuck Sleeve Assembly is functioning properly.

18. Place Stator Assembly 34c into Motor Housing Support 33.

    Place the Motor Housing Cover 32 over the Stator.

    Place all four Screws 14 onto the Motor Housing Cover. Tighten the top two screws. Drive but do not seat the bottom two screws. Leave the bottom two screws out as shown above. This is done as an aid for easier installation of the Rotor and Rotor Bearing into the Stator/Motor Housing Assemblies.

    Once rotor bearing is properly seated in the bearing cavity of the motor housing halves, the bottom screws can be tightened. All four screws are to be tightened to 30-34 in/lbs (35-40 kg/cm).



●14-46-2712
Rotary Hammer Service Kit

1	42-52-5262	Dust Cap	1
2	44-90-0014	C-Ring	2
3	42-76-5264	Chuck Sleeve Assy.	1
9a	44-90-0216	C-Ring	1
9j	34-40-1410	O-Ring	1
9m	34-40-1425	O-Ring	1
9p	34-40-1450	O-Ring	1
9q	34-40-1440	O-Ring	1
9s	44-90-1026	C-Ring	1
9x	44-90-0215	C-Ring	1
10b	34-40-1511	O-Ring	1
12	45-88-5200	Washer	2
14	05-81-1337	M4 x 14mm Screw	8
15	43-44-1375	Gasket	1
19	43-84-0300	Felt Plug	1
20	05-74-1020	9mm Hex Screw	1
22	05-81-1338	M4 x 10mm Screw	2
24	05-88-1525	M4 x 30mm Screw	4
25a	44-90-1180	C-Ring	1
39	06-82-1080	M3 x 14mm Screw	10
	49-08-5355	Type GE 00 Urethyn Grease 2.8 oz Tube	1
	49-08-5265	Type S2 Grease 7.0 oz Tube	1

SCREW TORQUE SPECIFICATIONS

FIG.	PART NO.	WHERE USED	SEAT TORQUE (KG/CM)	SEAT TORQUE (IN/LBS)
14	05-81-1337	Motor Housing Assembly	35-40	30-34
14	05-81-1337	Bearing Bar Mounting Bracket	35-40	30-34
20	05-74-1020	Crankcase Assembly	18-23	15-20
22	05-81-1338	Bearing Retainer	35-40	30-34
24	05-88-1525	Gear Housing Cover	15	13
26	06-82-3006	Motor Housing Assembly	35-40	30-34
31	06-82-3007	Rotor Assembly	25-30	21-26
39	06-82-1080	Handle Cover - Right Halve	14-17	12-14