



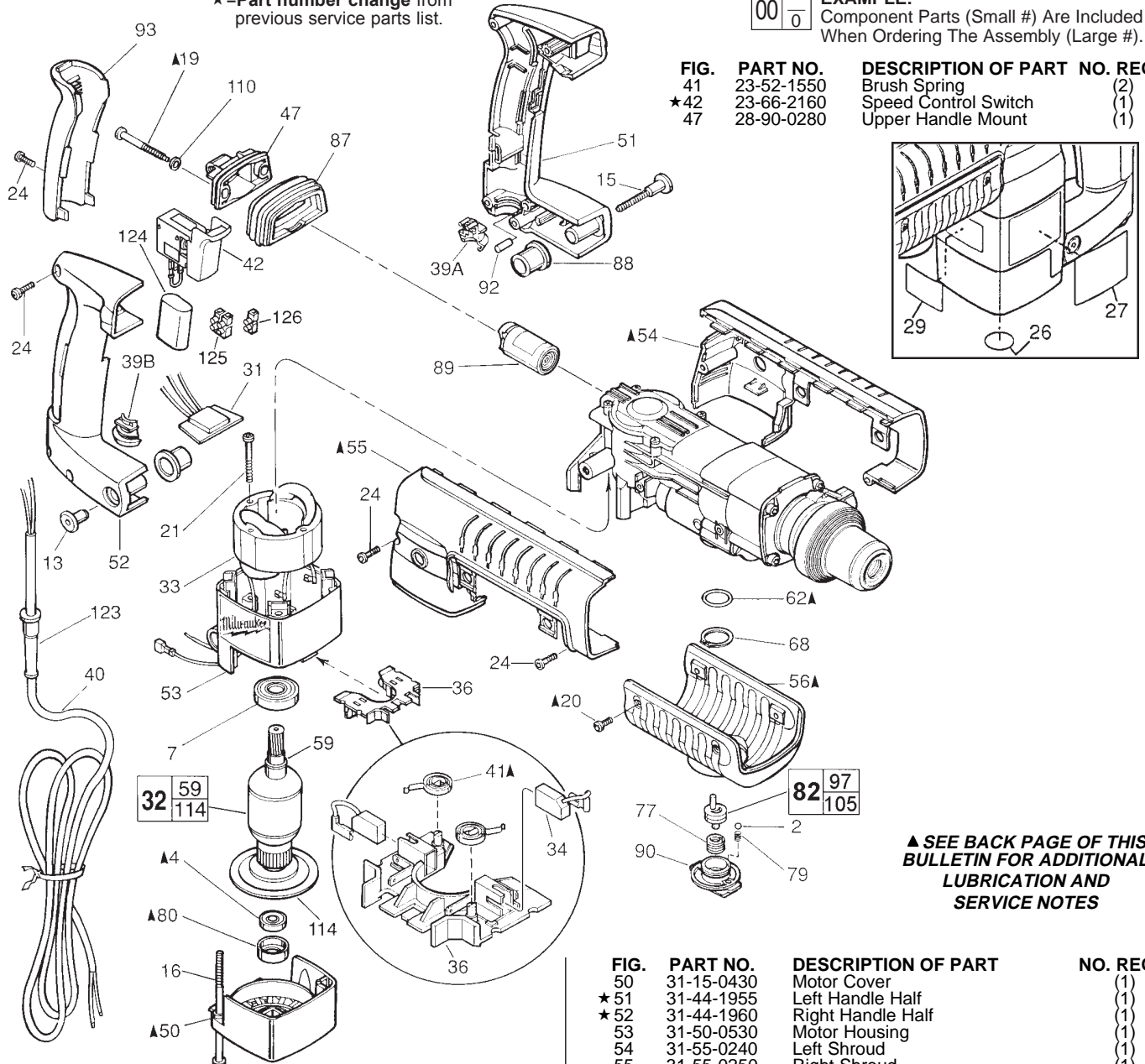
# SERVICE PARTS LIST

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 55-24-3700	DATE Mar. 2003
<b>SDS THUNDERMAX™ ROTARY HAMMER</b>			
CATALOG NO. <b>5313-55</b>	STARTING SERIAL NO. <b>885B</b>	WIRING INSTRUCTION <b>58-03-1620</b>	

★=Part number change from previous service parts list.

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

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
41	23-52-1550	Brush Spring	(2)
★42	23-66-2160	Speed Control Switch	(1)
47	28-90-0280	Upper Handle Mount	(1)

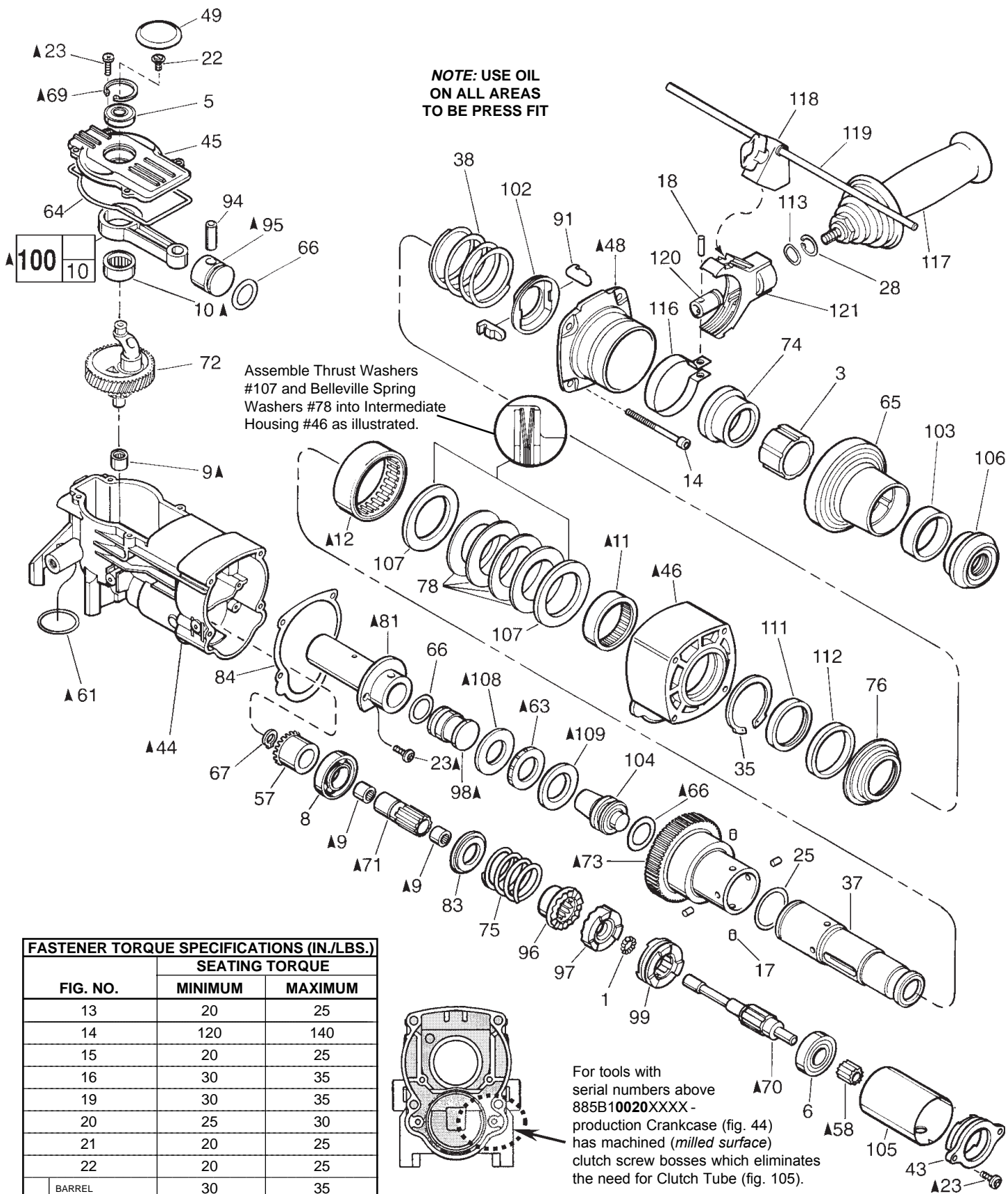


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FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
★ 2	02-02-1300	5mm Steel Ball	(2)
4	02-04-0847	Ball Bearing	(1)
7	02-04-1518	Ball Bearing	(1)
13	05-59-0100	Pivot Nut	(1)
15	05-77-0100	Pivot Bolt	(1)
16	05-81-0920	M6 x 1.0 x 120 Pan Hd. Slit. Tapt. T-27	(4)
19	06-81-1805	Special Screw	(2)
20	06-82-7252	8-32 x 3/8" Pan Hd. Slit. Tapt. T-20	(2)
21	06-82-7425	8-16 x 2" Pan Hd. Slit. Plast. T-20	(4)
24	06-95-6290	M5 x 2.24 x 18 Pan Hd. Slit. PT T-20	(7)
26	10-75-2760	Milwaukee Label	(1)
27	10-98-5313	Product Label	(1)
29	12-20-0516	Service Nameplate Kit	(1)
★31	14-20-0736	Remote Trigger Speed Control	(1)
32	16-50-1290	Armature	(1)
33	18-50-0260	Field	(1)
34	22-18-0870	Carbon Brush (2) Kit	(1)
36	22-22-1480	Brush Carrier Assembly	(1)
39A	31-17-0260	Lower Cord Clamp	(1)
39B	31-17-0265	Upper Cord Clamp	(1)
40	22-64-4485	Cord	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
50	31-15-0430	Motor Cover	(1)
★51	31-44-1955	Left Handle Half	(1)
★52	31-44-1960	Right Handle Half	(1)
53	31-50-0530	Motor Housing	(1)
54	31-55-0240	Left Shroud	(1)
55	31-55-0250	Right Shroud	(1)
56	31-55-0230	Belly Shroud	(1)
59	34-60-3620	Retaining Ring	(1)
62	34-40-4160	O-Ring	(1)
68	34-60-3630	Retaining Ring	(1)
77	40-50-8585	Torsion Spring	(1)
79	40-50-8690	Compression Spring	(2)
80	42-96-0130	Bearing Cup	(1)
★82	14-46-0112	Clutch Service Kit	(1)
87	43-87-0030	Isolation Bellows	(1)
88	43-87-0040	Pivot Isolator	(2)
89	43-87-0060	Isolation Module Assembly	(1)
90	43-98-0470	Rotostop Knob	(1)
92	14-46-1001	Foam Slug Kit (Bag of 10)	(1)
93	44-52-0580	Handle Cushion	(1)
110	45-88-8555	Rubber Washer	(2)
114	22-84-0870	Fan	(1)
123	44-76-0210	Cord Protector	(1)
124	22-33-0510	Suppressor	(1)
125	22-56-0451	Terminal Block	(1)
126	22-56-0456	Terminal Block	(1)

**MILWAUKEE ELECTRIC TOOL CORPORATION**  
 13135 W. LISBON RD., BROOKFIELD, WI 53005



**22-18-0870 CARBON BRUSH SERVICE KIT**

THIS KIT CONTAINS:

- 2 ----- Carbon Brush

● **14-46-9075 1-1/2" HAMMER SERVICE KIT**

THIS KIT CONTAINS:

- 1 31-12-0270 Cap-Cover
- 1 34-40-4310 Rubber Damping Washer
- 1 34-40-4320 Seal-Cover
- 3 34-40-4350 O-Ring Piston, Ram, Striker
- 1 42-96-0130 Bearing Cup
- 1 43-44-0970 Gasket
- 1 45-06-0680 Felt Seal
- 1 49-08-5265 7 Oz. Tube "S2" Grease

For tools with serial numbers above 885B10020XXXX - production Crankcase (fig. 44) has machined (milled surface) clutch screw bosses which eliminates the need for Clutch Tube (fig. 105).

**▲ SEE BACK PAGE OF THIS BULLETIN FOR ADDITIONAL LUBRICATION AND SERVICE NOTES**

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	02-02-0120	1/8" Steel Ball	(12)
3	31-86-0100	Spacer	(1)
5	02-04-0911	Ball Bearing	(1)
6	02-04-1510	Ball Bearing	(1)
8	02-04-2000	Ball Bearing	(1)
9	02-50-2470	Needle Bearing	(3)
10	02-50-4020	Needle Bearing	(1)
11	02-50-9000	Needle Bearing	(1)
12	02-50-9985	Needle Bearing	(1)
14	05-81-0830	M6 x 1.0 x 70 Pan Hd. Screw T-27	(4)
17	06-65-3750	Drive Pin	(4)
18	06-65-1660	Dowel Pin	(1)
22	06-82-8842	8-32 x 3/8" Pan Hd. Slit. Taptite T-20	(1)
23	06-95-6280	M4 x 0.7 x 14 Pan Hd. Slit. Taptite T-20	(8)
25	34-40-4430	O-Ring	(1)
28	34-60-2580	External Retaining Ring	(1)
35	34-80-5100	Internal Retaining Ring	(1)
★ 37	-----	Spindle Extension (◆=See Note Below)	(1)
38	40-50-8870	Compression Spring	(1)
43	30-89-0010	Bearing Retainer	(1)
44	28-14-2295	Crankcase	(1)
45	28-20-1325	Crankcase Cover	(1)
46	28-50-8680	Intermediate Housing	(1)
48	28-12-0110	Nose Flange	(1)
49	31-12-0270 ●	Cap-Cover	(1)
57	32-05-2250	Bevel Gear	(1)
58	32-60-2590	Clutch Pinion	(1)
61	34-40-1375	O-Ring	(1)
63	34-40-4310 ●	Rubber Damping Washer	(1)
64	34-40-4320 ●	Seal-Cover	(1)
65	42-76-0710	Chuck Collar	(1)
66	34-40-4350 ●	O-Ring	(3)
67	34-60-0700	Retaining Ring	(1)
69	34-80-5090	Retaining Ring-Beveled	(1)
70	36-14-0760	Clutch Shaft	(1)
71	36-14-0770	Hollow Clutch Shaft	(1)
72	14-09-0140	Crankshaft Assembly	(1)
73	38-50-6085	Spindle	(1)
74	42-76-0715	Collar	(1)
75	40-50-8575	Compression Spring	(1)
★ 76	43-34-0765	Spring Flange	(1)
78	40-50-8590	Belleville Spring	(4)
81	42-98-0240	Barrel	(1)
83	43-34-0740	Spring Flange	(1)
84	43-44-0970 ●	Gasket	(1)
91	43-96-0220	Key	(2)
94	44-60-1400	Wrist Pin	(1)
95	44-62-0210	Piston	(1)
96	44-66-6030	Splined Clutch Plate	(1)
97	44-66-6045	Fixed Clutch Plate	(1)
98	44-82-0170	Ram	(1)
99	44-90-4400	Shift Ring	(1)
100	44-94-0395	Connecting Rod Assembly	(1)
102	44-86-0610	Key Retaining Ring	(1)
103	44-90-0005	Seal Retaining Ring	(1)
104	45-56-2620	Striker	(1)
105	45-76-0490	Clutch Tube	(1)
106	45-06-0555	Dust Seal	(1)
107	45-88-8520	Thrust Washer	(2)
108	45-88-8530	Barrel Thrust Washer	(1)
109	45-88-8535	Striker Cushion Washer	(1)
111	45-06-0670	Oil Seal	(1)
112	45-06-0680 ●	Felt Seal	(1)
113	45-88-8730	Wave Washer	(1)
116	42-16-0125	Side Handle Band	(1)
★ 117	14-34-0516	Side Handle Assembly	(1)
★ 118	14-34-0551	Depth Rod Mount Assembly	(1)
119	44-94-0165	Depth Gauge Rod	(1)
120	44-86-0620	Band Retainer	(1)
121	31-44-2000	Side Handle Housing	(1)

**NOTE:** Check the clutch torque. Clutch must slip at 30 to 38 ft.-lbs. at the spindle, checked clockwise as viewed from the front of the tool.

**▲ SEE BACK PAGE OF THIS BULLETIN FOR ADDITIONAL LUBRICATION AND SERVICE NOTES**

◆= When replacing item 37 (spindle extension), No. 38-50-6150 must be ordered. When using the replacement spindle No. 38-50-6150, discard items 17, 25, 37 and 73.

**LUBRICATION NOTES: (TYPE "S2" GREASE, NO. 49-08-5265)**

Fill Piston #95 with grease and assemble to Connecting Rod #100 with Wrist Pin #94. Front surface of Piston to be free of grease.

Lubricate O-Ring #66 with grease.

Place 1.5 oz. grease here.

Place a total of 1.0 oz. grease in the barrel cavity in the crankcase #44. Place .5 oz. in each corner in barrel chamber.

Place 1.5 oz. grease in bottom of crankcase prior to installing crankshaft assembly.

FRONT OF CRANKCASE

Apply grease to lobed surface #97.

Apply grease to spline surface #71.

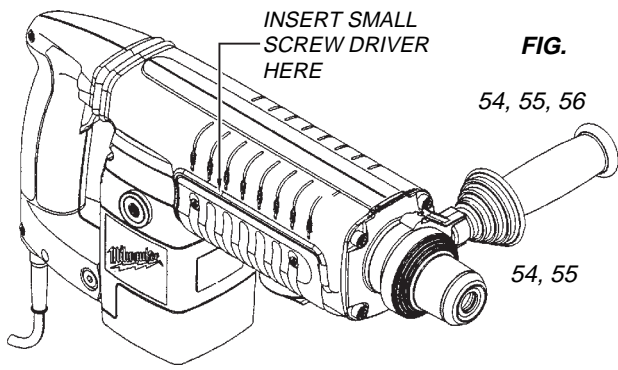
Apply grease to lobed surface #96.

Apply grease to radius and spline surface #70.

Apply .5 oz. grease on clutch assembly, filling the spring coils.

Lubricate O-Ring #66 with grease. Install O-Ring onto Ram #98. Assemble Ram into Barrel #81, O-Ring end first. Set end of Ram flush with end of Barrel. Do not push Ram deep into Barrel.

Place .5 oz. grease in lower clutch pinion cavity.



**FIG. ▲ NOTES**

TO REMOVE BELLY SHROUD #56 FROM TOOL, INSERT SMALL SCREW DRIVER INTO GROOVE BETWEEN BELLY AND SIDE SHROUDS #54 AND #55, ABOUT 1/3 OF THE WAY FROM THE MOTOR END, AS SHOWN. PRY OUT AND DOWN ON BOTH SIDES OF THE TOOL.

TO INSTALL THE SIDE SHROUDS #54 AND #55, THE TOP HINGE OF THE SHROUDS MUST BE COMPLETELY INTERLOCKED, THEN THE BACK SIDE ROTATED CLOSED AROUND THE TOOL.

73 LUBRICATE ALL BORES IN SPINDLE #73 WITH A MEDIUM COATING OF GREASE.

63, 108, 109 LUBRICATE RUBBER DAMPING WASHER #63, BARREL THRUST WASHER #108 AND STRIKER CUSHION WASHER #109 WITH A MEDIUM COATING OF GREASE BEFORE ASSEMBLY.

10, 100 PRESS NEEDLE BEARING #10 IN ROD #100 SO THAT THE SAME AMOUNT STICKS OUT ON BOTH SIDES OF THE ROD, AS SHOWN.

9, 71 PRESS (2) NEEDLE BEARINGS #9 INTO HOLLOW CLUTCH SHAFT #71, FLUSH WITH THE ENDS OF THE SHAFT.

58, 70 PRESS CLUTCH PINION #58 FLUSH WITH THE END OF THE CLUTCH SHAFT #70.

11, 12, 46 PRESS NEEDLE BEARING #11 FLUSH TO THE INSIDE SURFACE OF THE INTERMEDIATE HOUSING #46, AGAINST THE SNAP RING. PRESS NEEDLE BEARING #12 FLUSH TO THE OUTSIDE MACHINED SURFACE OF THE INTERMEDIATE HOUSING.

9, 44 PRESS NEEDLE BEARING #9 INTO CRANKCASE #44, FLUSH WITH TOP OF BORE, AS SHOWN.

81 LIGHTLY GREASE INSIDE OF BARREL #81 BEFORE ASSEMBLY.

14, 19, 20, 23 FASTENERS #14, #19, #20 AND #23 ARE TO BE RE-ASSEMBLED USING BLUE LOCTITE.

61, 62, 66 LUBRICATE O-RINGS #61, #62 AND #66 WITH GREASE.

69 INSTALL BEVEL SNAP RING #69 WITH BEVEL SIDE UP.

4, 50, 80 PLACE BEARING CUP #80 ON SMALL ARMATURE BEARING #4 BEFORE INSTALLING MOTOR COVER #50.

41 BRUSH SPRINGS #41 ARE TO BE WOUND 1/2 TURN TO ENGAGE BRUSHES.

4 RUBBER SEAL SIDE OF BALL BEARING #4 TO FACE FAN.

95, 98 FACES OF PISTON #95 AND RAM #98 ARE TO BE FREE OF GREASE.

