



Thanks for downloading the user manual for the Imperial Deluxe Automatic ZigZag sewing machine Model 4500.

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Happy Sewing

Don Tai <http://www.dontai.com/wp/>

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Important!

READ THIS FIRST



Nancy Randell

CONGRATULATIONS!

You are now the proud owner of a new precision-built "IMPERIAL" Sewing Machine. To get the most out of your new machine, and in order to ensure many years of satisfactory, trouble-free use, we suggest that you **READ YOUR INSTRUCTION BOOK THOROUGHLY** and become familiar with all of its wonderful features **BEFORE** you attempt to operate it.

PLEASE REMEMBER:

This is a modern sewing machine, with many features that are very different from those found on older style machines. All of the latest features designed for a machine of this class will be found on this fine new machine. **BUT ONCE YOU HAVE READ THE INSTRUCTION MANUAL THOROUGHLY**, you will find this machine easy to operate. You will be able to do finer work than you dreamed possible . . . so easily . . . **IF YOU FOLLOW YOUR ILLUSTRATED INSTRUCTION BOOK.**

STOP IN CASE OF STOPPAGE

CHECK MOTOR — If it hums but the machine fails to operate, check the shuttle race (track the bobbin rotates on), it may be clogged with lint or loose threads — clean it as per diagram below. Also check the needle — if it's bent or broken, replace it. If the motor fails to hum, examine the cord, plug and electrical outlet — be sure they are in good working condition. Re-check the section on Adjustments in your regular instruction booklet.

To Open the Shuttle Race (see Fig. 1)

To ensure the best results with your sewing machine, it is desirable that the shuttle race be cleaned out from time to time. Moreover it will sometimes be necessary to open the shuttle in order to eject loose pieces of thread that have been caught in the hook.

To open the shuttle race, first raise the needle bar to its highest point, and remove the bobbin case.

Next, twist the shuttle race spring screw anti-clockwise until it can be drawn out of the shuttle.

The shuttle race spring will then swing down on its hinges, enabling you to remove the

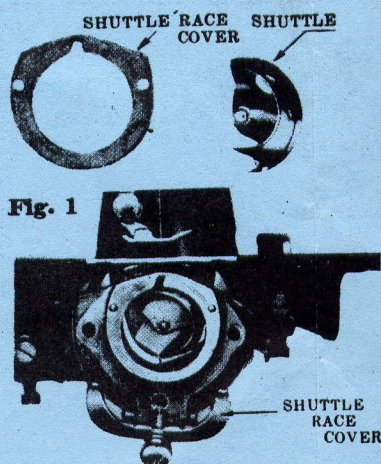


Fig. 1

shuttle race ring completely and to detach the shuttle hook inside.

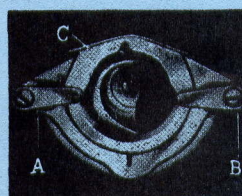


Fig. 2

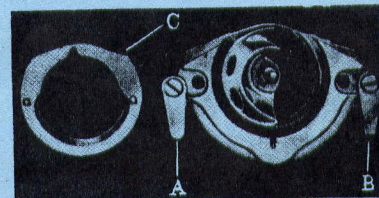
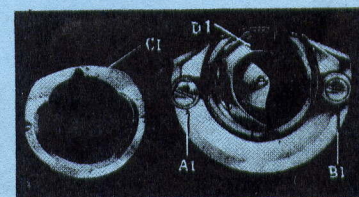
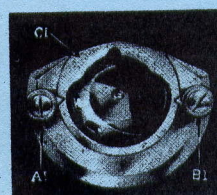


Fig. 3



Pull and move the latches down (A1, B1.) and remove the ring (C1) and shuttle (D1). Wipe all parts clean and re-oil and replace.

THIS MACHINE HAS BEEN TESTED AND CHECKED -- TWICE

FIRST at the factory before shipment to our plant and **SECOND** by our Quality Control section before delivery to you. It has been put through a thorough performance test. This test has shown all controls to be properly adjusted and all moving parts operating satisfactorily.

ONCE SET, most controls of this machine are not likely to get out of adjustment. Occasionally, however, a few stoppages are likely to occur. See above. Do not continue sewing; determine the cause of the stoppage and correct immediately.

BEFORE actually sewing, however, we suggest that you check the section on Adjustments in your regular instruction booklet. If any controls have been thrown out of adjustment or loosened in transit, follow the recommendations made in this section: they will help you get a good start toward trouble-free productive sewing.

CHECK THREAD BREAKAGE — It's caused by incorrect threading of either needle or bobbin; clogged stitch-forming mechanism; thread tension too tight; incorrect size needle for the thread being used; bent or blunt needles; old or dried-out thread; needle with rough edge.

CHECK STITCH-SKIPPING — It's caused by improper seating of the needle in the needle bar; bent, blunt or incorrect size needles (check Needle and Thread Size Chart).

CHECK THREAD USED — In Top Spool and Bobbin. To prevent faulty sewing or slippage, the thread in both the top spool and bobbin must be the same size and types. Don't mix sizes. Don't mix types. If you are using a **silk** thread in the bobbin, use a **silk** thread of the same size in the top spool, etc.

CHECK STITCH-FORMING MECHANISM — **Keep it clean!** This mechanism may become clogged from broken threads or accumulation of lint. If not cleaned it will lessen the efficiency of the machine. Check the regular instruction booklet on the **CLEANING OF STITCH-FORMING MECHANISM**.

CHECK BUNCHING OF MATERIAL — It's caused by improper pressure on the presser foot. Check the section on Adjustments — Regulating Pressure on Material. Remember — the heavier the material the heavier the pressure.

CAUTION -- PLAY SAFE

NEVER turn the hand wheel **away** from the operator.

NEVER run the machine with the presser foot in the down position unless material is between the presser foot and the feed teeth.

NEVER run the machine when it is fully threaded unless some material is between the presser foot and the feed teeth.

NEVER NEVER try to **help** the machine "feed". Never pull the material through the feed teeth. A bent or broken needle will result. The feed is entirely automatic.

NEVER operate the machine unless the bobbin case cover is closed.

NEVER over oil the motor or it will fail . . . 2 or 3 drops of light, sewing machine oil twice a year is sufficient

SEWING CHART

OF COTTON

SIZE OF
NEEDLE

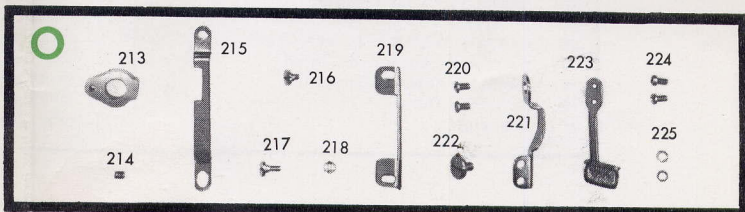
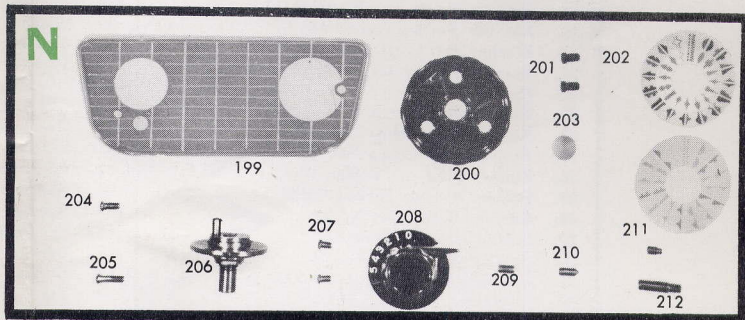
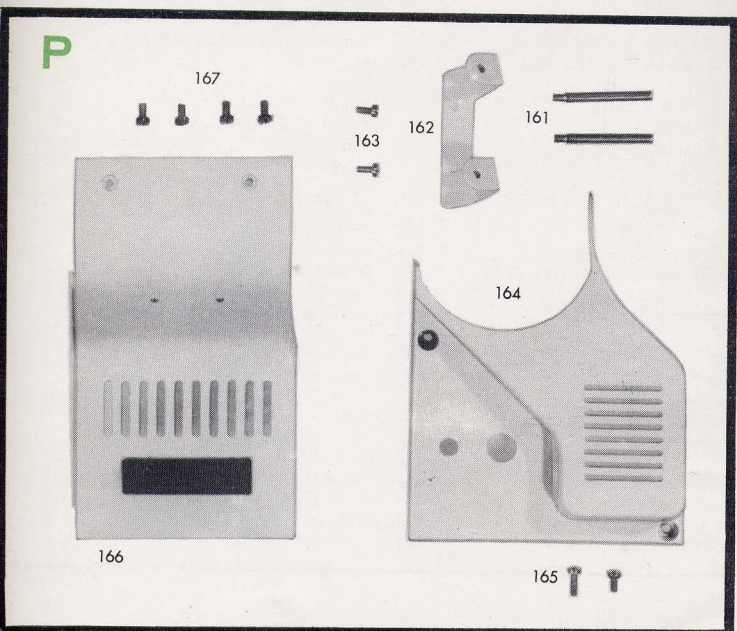
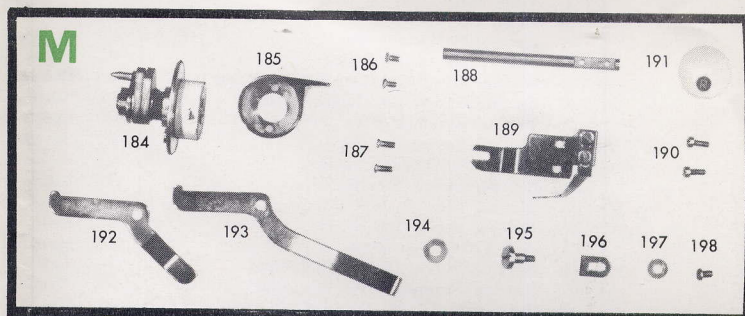
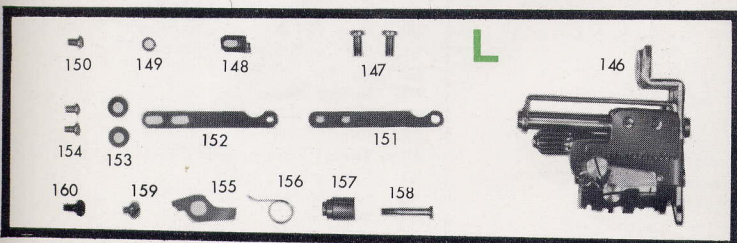
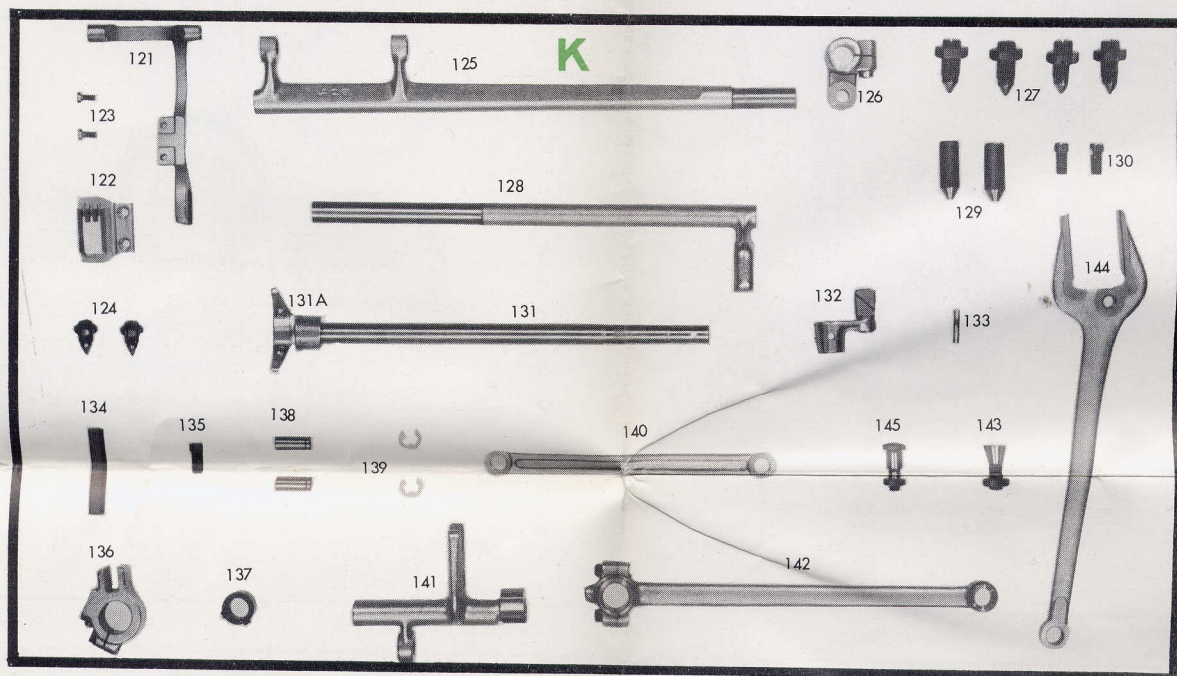
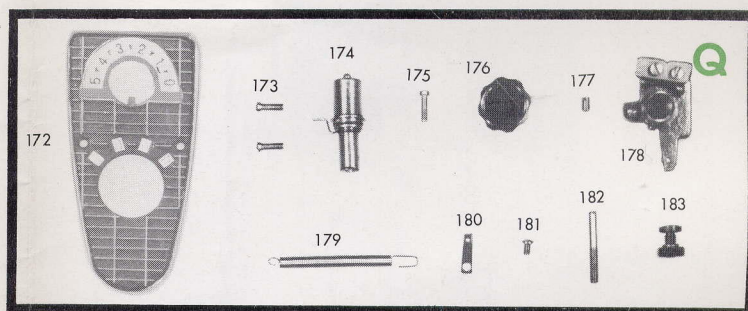
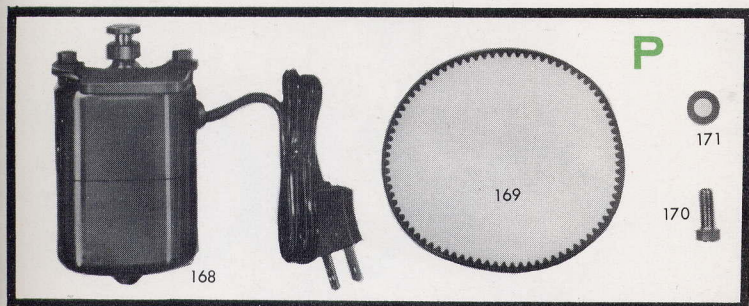
100 TO 150 ————— USE 9

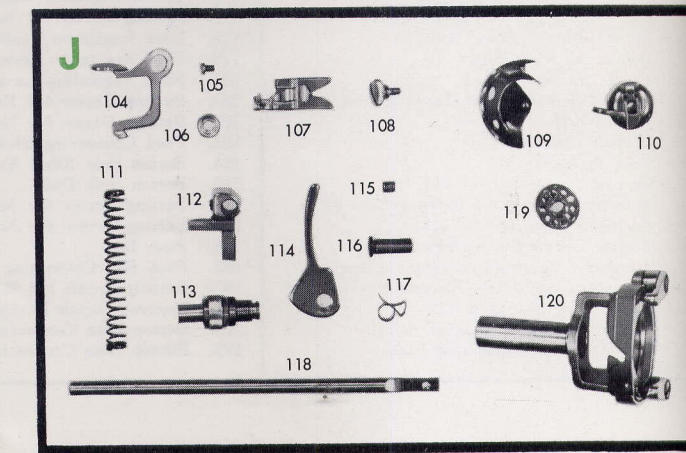
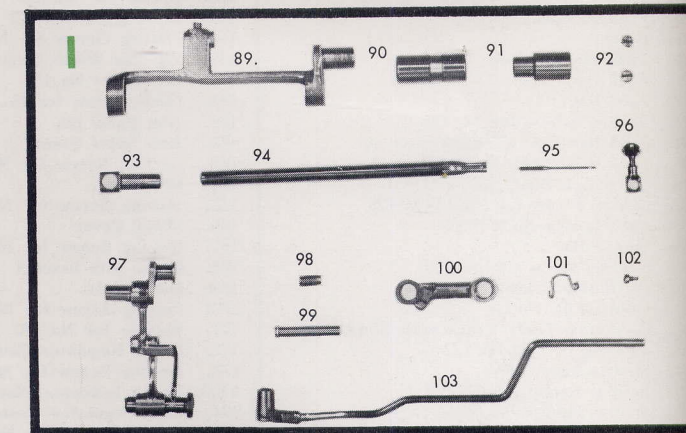
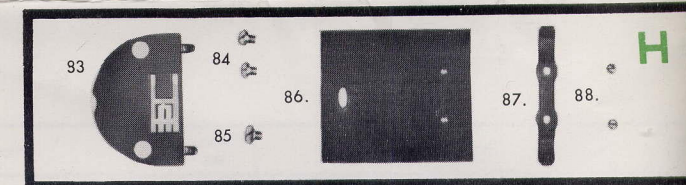
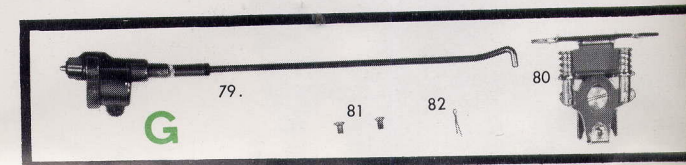
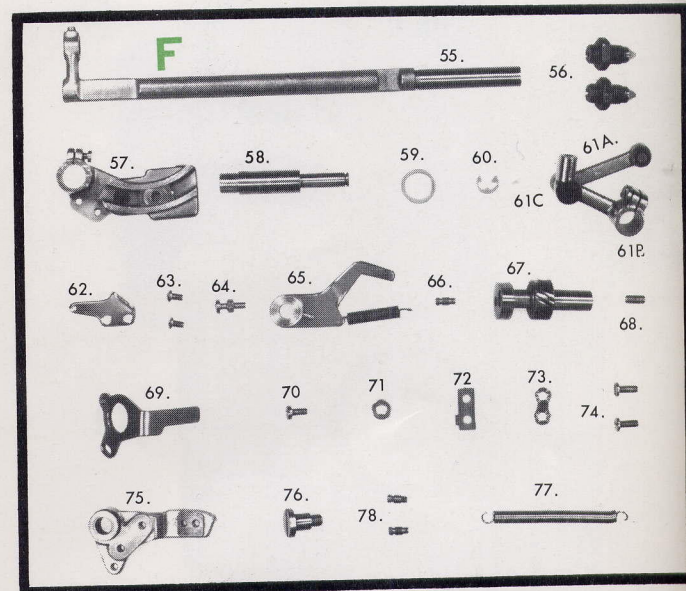
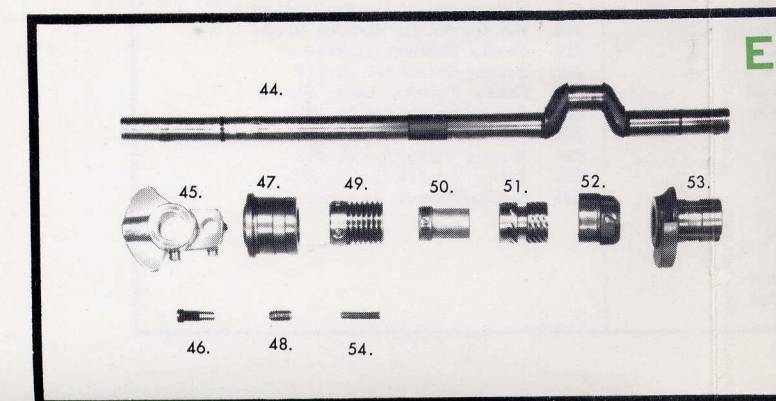
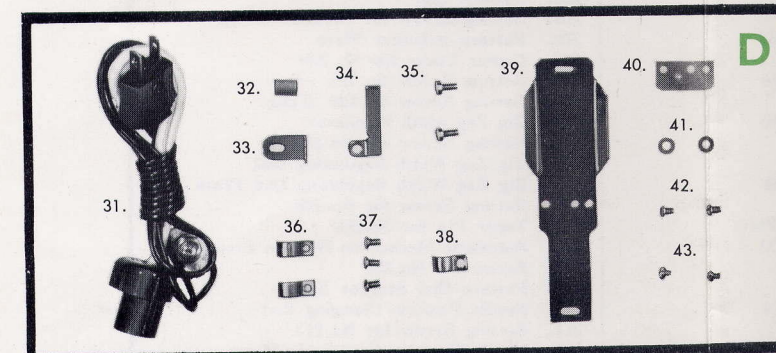
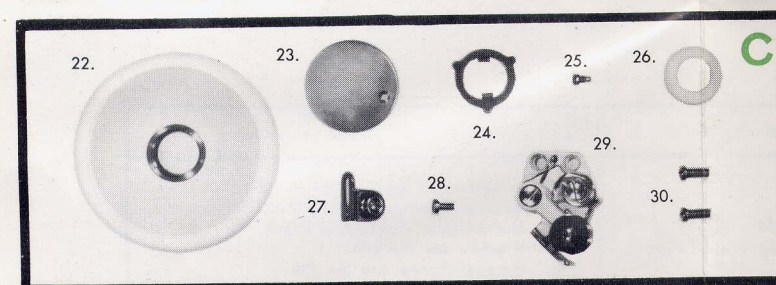
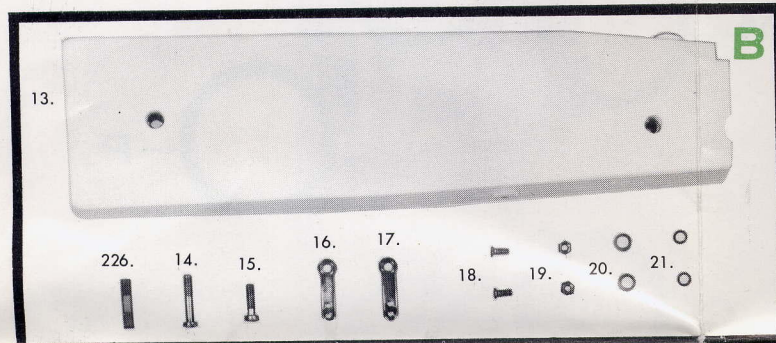
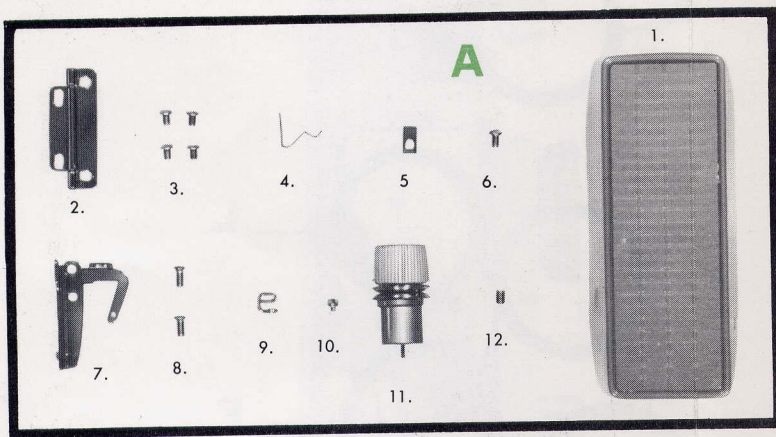
80 TO 100 ————— USE 11

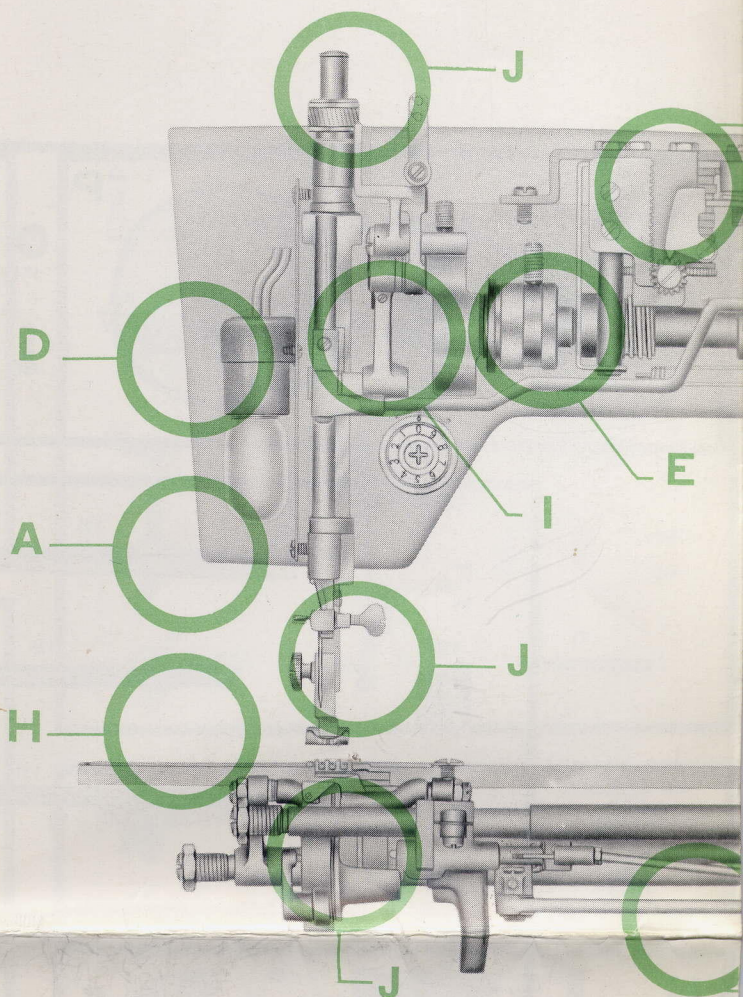
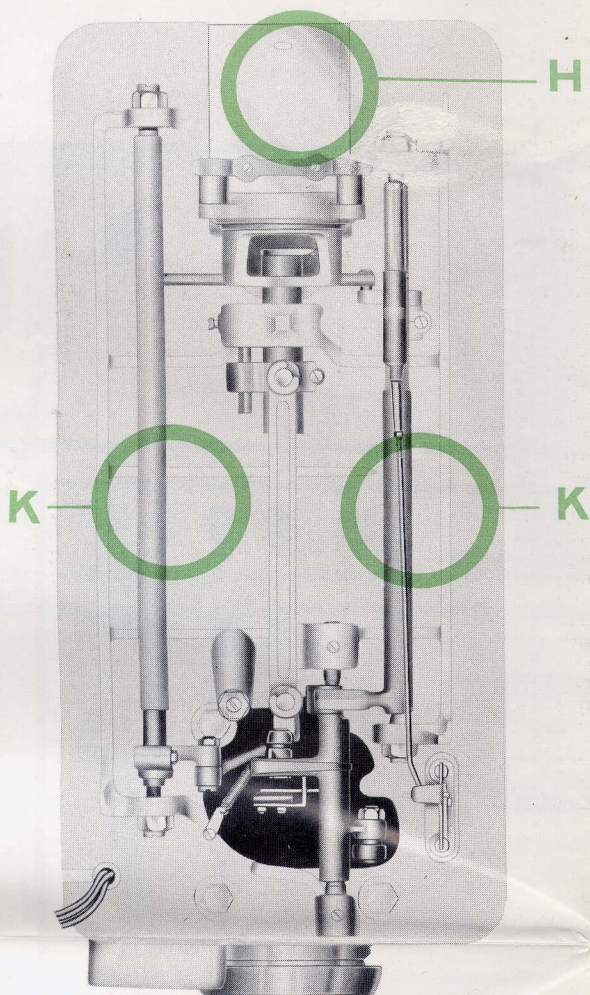
60 TO 80 ————— USE 14

40 TO 60 ————— USE 16

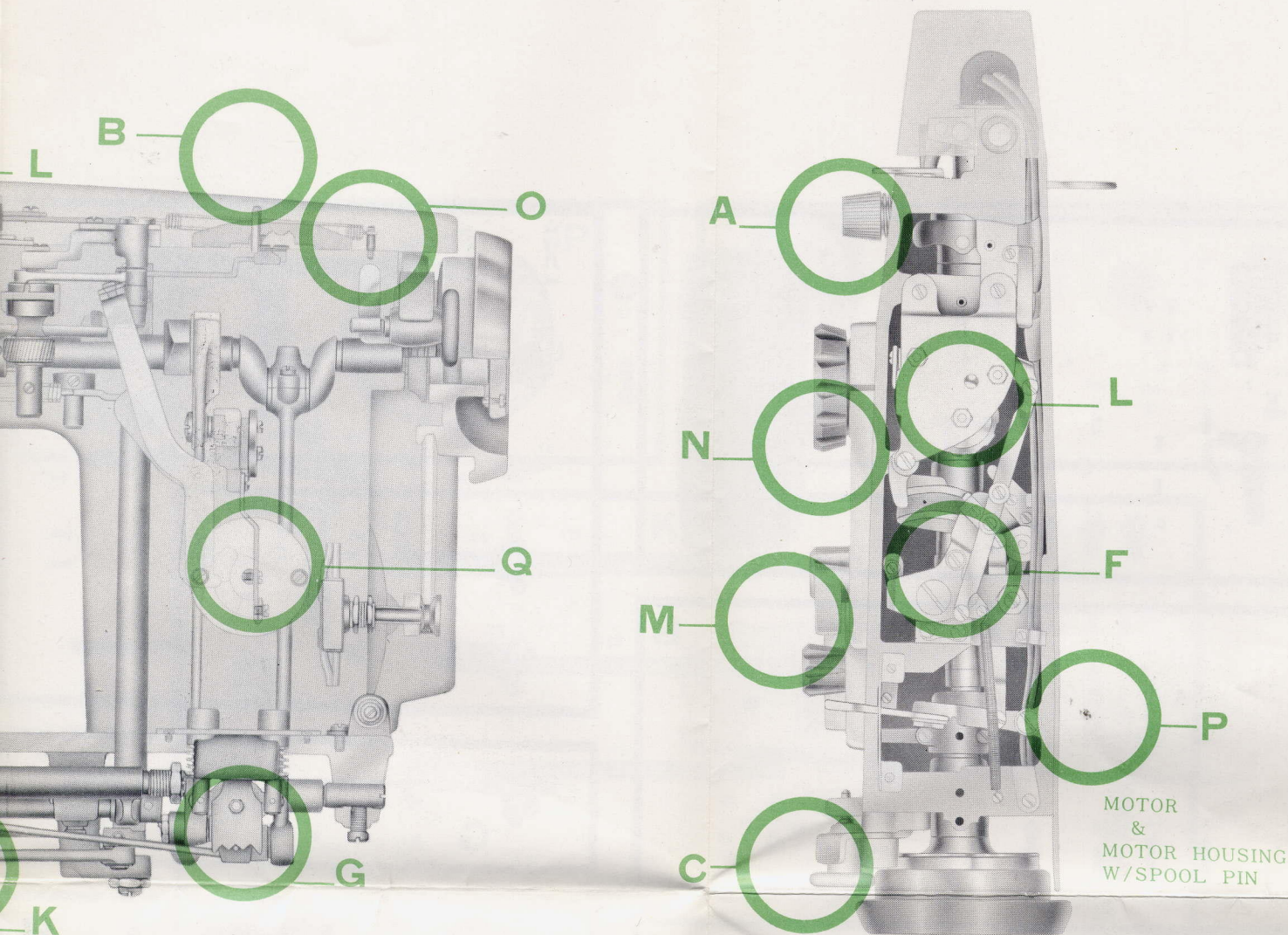
30 TO 40 ————— USE 18







Parts. No.	Name of Parts	Parts. No.	Name of Parts	Parts. No.	Name of Parts
1.	Face Plate	41.	Setting Washer for Reflector	78.	Setting Screw for No.77
2.	Hinge for Face Plate	42.	Setting Screw for No.41	79.	Drop Feed Crank with Bar
3.	Setting Screw for No.2	43.	Sewlight Socket Setting Screw	80.	Drop Feed Pushing Button
4.	Face Plate Guide Spring	44.	Upper Shaft	81.	Setting Screw for No.80
5.	Washer for Face Plate Guide Spring	45.	Balance Cam with Screw	82.	Pin for No.79 Bar
6.	Setting Screw for Guide Spring	46.	Setting Screw for No.45	83.	Needle Plate
7.	Thread Retainer Bar	47.	Upper Bushing	84.	Setting Screw for No.83
8.	Setting Screw for No.7	48.	Setting Screw for No.47	85.	Needle Plate Guide Screw
9.	Face Plate Thread Guide	49.	Worm Wheel with Screw	86.	Throat Plate (Slide Plate)
10.	Setting Screw for No.9	50.	Upper Shaft Spiral Collar	87.	Spring for No.86
11.	Thread Tension Assembly	51.	Upper Shaft Spiral Gear	88.	Setting Screw for No.87
12.	Setting Screw for No.11	52.	Feed Cam	89.	Support
13.	Arm Cover Top Plate	53.	Hand Wheel Bushing	90.	Upper Bushing for Presser Bar
14.	Setting Screw for No.13 (Large)	54.	Tapered Pin for No.53	91.	Lower Bushing for Presser Bar
15.	Setting Screw for No.13 (Small)	55.	Vertical Rock Shaft	92.	Setting Screw for No.90 & 91
16.	Top Plate Thread Guide A	56.	Center Screw with nut for No.55	93.	Needle Bar Guide Bracket
17.	Top Plate Thread Guide B	57.	Zig Zag Width Cam Box with Roller	94.	Needle Bar
18.	Setting Screw for No.16 & 17	58.	Zig Zag Cam Axis	95.	Needle
19.	Nut for Setting Screw No.18	59.	Washer for No.58	96.	Needle Clamp
20.	Washer for Setting Screw No.18	60.	Clip Washer for No.58	97.	Thread Take-Up Lever
21.	Spring Washer for Setting Screw No.18	61.	Vertical Rock Shaft Driving Rod Bar	98.	Thread Take Up Lever Holding Stud Set Screw
22.	Hand Wheel	61B.	Vertical Rock Shaft Crank		
23.	Stop Motion Screw	61C.	Basing Bracket for Needle Bar Guide Bar	99.	Needle Bar Driving Rod Pin
24.	Stop Motion Clamp Washer	62.	Needle Position Stopper	100.	Needle Bar Connecting Rod
25.	Stop Motion Clamp Screw	63.	Setting Screw for No.62	101.	Needle Bar Thread Guide
26.	Rubber Ring for Bobbin Winder	64.	Adjusting Screw for No.62	102.	Setting Screw for No.101
27.	Bobbin Winder Thread Guide	65.	Needle Position Connecting Bracket with Spring	103.	Needle Bar Guide Bar
28.	Setting Screw for No.27	66.	Spring Setting Screw for No.65	104.	Tension Releasing Bar
29.	Bobbin Winder Assembly	67.	Geared Cam	105.	Setting Screw for No.104
30.	Setting Screw for No.29	68.	Setting Screw for No.67	106.	Washer for No.104
31.	Sewlight Wiring With Socket & Switch	69.	Zig Zag Width Adjusting Arm	107.	Presser Foot
32.	Insulator	70.	Setting Screw for No.69	108.	Setting Screw for No.107
33.	Sewlight Wiring Clamper A	71.	Washer for Setting Screw No.70	109.	Shuttle Hook
34.	Sewlight Wiring Clamper B	72.	Vertical Rock Shaft Driving Rod Stopper	110.	Bobbin Case
35.	Setting Screw for No.33 & 34	73.	Washer for No.72	111.	Presser Bar Spring
36.	Sewlight Wiring Clamper C	74.	Setting Screw for No.72	112.	Presser Bar Bracket
37.	Setting Screw for No.36-38	75.	Vertical Rock Shaft Driving Rod	113.	Patch-O-Matic Darning
38.	Sewlight Wiring Clamper D	76.	Setting Screw for No.75	114.	Presser Bar Lifter
39.	Reflector Plate	77.	Zig Zag Width Crank Bar Spring	115.	Setting Screw for No.116
40.	Insulator			116.	Presser Bar Lifter Pin



Parts. No.	Name of Parts	Parts. No.	Name of Parts	Parts. No.	Name of Parts
117.	Thread Cutter	156.	Spring for No.155	194.	Washer for No.192,193 & 195
118.	Presser Bar	157.	Bushing for No.155	195.	Setting Screw for No.192 & 193
119.	Bobbin	158.	Setting Screw for No.157	196.	Button Hole Regulating Plate
120.	Open Shuttle Race	159.	Zig Zag Width Connecting Plate Guide	197.	Washer for No.196
121.	Feed Bar		Screw for No.151	198.	Setting Screw for No.196
122.	Feed Dog	160.	Guide Screw for No.152	199.	Control Panel Plate
123.	Setting Screw for No.122	161.	Arm Spool pin	200.	Pattern Dial
124.	Feed Bar Center Screw with nut	162.	Arm Spool Stand	201.	Setting Screw for No.200
125.	Feed Rock Shaft Rocker Bar	163.	Setting Screw for No.162	202.	Pattern Indicator Plate
126.	Feed Rock Shaft Crank	164.	Belt Cover	203.	Center Cover for No.200
127.	Center Screw for No.125 & 128	165.	Setting Screw for No.164	204.	Setting Screw No.199 (short)
128.	Feed Lifting Rock Shaft	166.	Motor Cover	205.	Setting Screw No.199 (Long)
129.	Center Bar	167.	Setting Screw for No.166	206.	Zig Zag width Regulator
130.	Setting Screw for No.129	168.	Motor with bracket	270.	Setting Screw for No.206
131.	Oscillating Shaft	169.	Motor Belt	208.	Zig Zag Width Regulating Dial
131A.	Shuttle Driver	170.	Setting Screw for No.168	208A.	Zig Zag Width Regulating Dial Plate
132.	Oscillating Shaft Crank with Slide Block	171.	Washer for No.170	209.	Setting Screw for No.208
133.	Tapered Pin for No.132	172.	Stitch Regulator Cover Plate	210.	Taper Pin for No.208
134.	Shuttle Race Guide	173.	Setting Screw for No.172	211.	Automatic Mechanism Release Stopper
135.	Setting Screw for No.134	173A.	Stitch Indicator Plate		Screw for No.206
136.	Shuttle Race Block	174.	Feed Regulator Center	212.	Pattern Dial Stopper Screw
137.	Oscillating Shaft Collar	175.	Setting Screw for No.174	213.	Needle Position Changing Rod
138.	Shuttle Race Driving Rod Pin	176.	Stitch Regulator Dial	214.	Setting Screw for No.213
139.	Clip Washer for No.138	177.	Setting Screw for No.176	215.	Needle Position Connecting Plate
140.	Shuttle Race Driving Rod	178.	Feed Regulator Assembly	216.	Setting Screw for No.215 (Short)
141.	Oscillating Rock Shaft	179.	Feed Regulator Reverse Sewing Spring	217.	Setting Screw for No.215(Long)
142.	Crank Connecting Rod	180.	Feed Regulating Lever Spring Holder	218.	Nut for No.217 Setting Screw
143.	Crank Connecting Rod Taper Screw	181.	Setting Screw for No.180	219.	Needle Position Limiter
144.	Forked Rod	182.	Setting Screw for No.178	220.	Setting Screw for No.219
145.	Eccentric Screw	183.	Feed Connecting Slide block	221.	Needle Position Lever Spring
146.	Cam Assembly	184.	Button Hole Shaft Assembly	222.	Setting Screw for No.221
147.	Setting Screw for No.146	185.	Button Hole Dial	223.	Needle Position Lever
148.	Automatic Mechanism Release Limiter	186.	Setting Screw for No.185	224.	Setting Screw for No.223
149.	Spring Wahser for No.148	187.	Setting Screw for No.184	225.	Spring Washer for No.223.
150.	Setting Screw for No.149	188.	Push Bar	226.	Needle Position Indicator Plate
151.	Automatic Mechanism Release Plate A	189.	Push Bar Connecting Plate		
152.	Automatic Mechanism Release Plate B	190.	Setting Screw for No.189		
153.	Washer for No.151 & 152	191.	Reverse Stitch Button		
154.	Setting Screw for No.151 & 152	192.	Button Hole Connecting Rod A		
155.	Cam Selector Connecting Plate	193.	Button Hole Connecting Rod B		