

FINEST QUALITY

Union Special[®]
LEWIS[®] • COLUMBIA[®]

**INDUSTRIAL
SEWING
MACHINES**

STYLES

43-240

43-250

43-270



CATALOG

No.

194-13

CLASS 43

CHAINSTITCH BLINDSTITCH MACHINES

UNION SPECIAL CORPORATION

CHICAGO

Price \$1.00

FOREWORD

Class 43 is Union Special Corporation's line of single thread chainstitch blind-stitch machines with top and bottom feeds for coat work and work on furs. It also offers a bottom feed only machine for making mock full fashion marks on sweaters, knit dresses and similar garments.

All parts are made by precision methods insuring complete interchangeability.

It is our constant aim to furnish carefully prepared information which will enable the customer to secure all possible advantages from the use of UNION SPECIAL machines. The following pages contain valuable operating and adjusting data, and illustrate and describe the parts for Class 43.

Union Special representatives will be found in all manufacturing centers to cooperate in planning and estimating requirements.

UNION SPECIAL CORPORATION

Engineering Department

Catalog No. 194-13

INSTRUCTIONS

FOR

ADJUSTING AND OPERATING

LIST OF PARTS

Styles

43-240 43-250 43-270

First Edition

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UNION SPECIAL CORPORATION

INDUSTRIAL SEWING MACHINES

CHICAGO

Printed in U.S.A.

December, 1977

IDENTIFICATION OF MACHINES

Each UNION SPECIAL LEWIS machine carries a style number, which, in this class of machines, is stamped in the style plate on the front of the column. The serial number of each machine is stamped in the lug also, on the front of the column.

APPLICATION OF CATALOG

This catalog applies specifically to the styles of machines listed herein. All references to directions, such as right and left, forward and back, etc., are taken from the operator's position while seated at the machine.

The operating direction of the handwheel is away from the operator.

DESCRIPTION OF MACHINES

High Production, Single Thread, Single Curved Needle, Chainstitch, Blindstitch, Cylinder Base Machine. Non-Skip 1 to 1 Stitch. Needle Travels Left to Right and Penetrates at an Angle of 90 Degrees to Line of Feed. Calibrated Penetration Adjustment. Knee Lifter for Inserting and Removing Work. Work Support Plate. Maximum Work Space to Right of Needle is 9 Inches.

43-240 For blindstitch felling bridle and edge tape on men's medium weight suit coats. Also for padding collars and lapels, and for tacking the canvas to facing on seamed edge coats of light, medium and heavy materials. Upper and lower feeds give positive control of all plies for quality work. Seam specification 104-SSm-1. Type 29 BC-090/036 needle.

43-250 Similar to Style 43-240 except equipped for fur work. Presser foot regulated depth of penetration from skin side. Skins are stitched without distorting or cutting the hairs of the finest furs. Upper and lower feed adjustments allow perfect feeding at lining and skins, which prevents unnecessary fullness. Seam specification 104-SSm-1. Type 29 BC-090/036 needle.

43-270 For making mock full fashion marks on sweaters, knit dresses and knitted garments of light, medium and heavy materials. Every stitch evenly spaced for quality work. Equipped with lower feed only. Seam specification 104-SSm-1 modified. Type 29 BD-110/044 needle.

NEEDLES

Use only genuine UNION SPECIAL needles. The needles are packaged under our brand name *Union Specials*.

The type number of the needles recommended for each style of machine covered by this catalog are given in the machine style description. Needles for the UNION SPECIAL LEWIS Class 43 machines are available in all the required sizes in both uniform blade and ball eye.

The following types and sizes are available:

Uniform Blade	Blade Diameter	Ball Eye	Blade Diameter
29BC-075/029	.029 inch (.75 mm)	29BD-065/025	.025 inch (.65 mm)
29BC-090/036	.036 inch (.90 mm)	29BD-075/029	.029 inch (.75 mm)
29BC-100/040	.040 inch (1.00 mm)	29BD-090/036	.036 inch (.90 mm)
29BC-110/044	.044 inch (1.10 mm)	29BD-100/040	.040 inch (1.00 mm)
Uniform Blade	Blade Diameter	29BD-110/044	.044 inch (1.10 mm)
Scarfed	Blade Diameter	29BD-140/054	.054 inch (1.40 mm)
29BA-100/040	.040 inch (1.00 mm)		

Selection of the proper needle size is determined by size of thread used and weight of material being sewn. Thread or yarn should pass freely through needle eye in order to produce a good stitch formation.

When sewing, immediately discard any needle which may have a hooked or blunt point.

To have needle orders promptly and accurately filled, an empty container, a sample needle, or the Type number should be forwarded. A complete order would read: "100 Needles, Type 29 BC-090/036".

ORDERING REPAIR PARTS

ILLUSTRATIONS

This catalog has been arranged to simplify ordering repair parts. Exploded views of various sections of the mechanism are shown so that the parts may be seen in their actual position in the machine. On the page opposite the illustration will be found a listing of the parts with their part numbers, description and the number of pieces required in the particular view being shown.

Numbers in the first column are reference numbers only, and merely indicate the position of that part in the illustration. Reference numbers should never be used in ordering parts. Always use the part number listed in the second column.

Component parts of sub-assemblies which can be furnished for repairs are indicated by indenting their descriptions under the description of the main sub-assembly. Example:

4115-72	Feed and Plunger Bearing Block, complete -----	1
1307 L	Plunger Barrel-----	1
121-3	Plunger Frame-----	1

It will be noted in the above example that the plunger bearing block is not listed. The reason is that replacement of this part individually is not recommended, so the complete sub-assembly should be ordered.

At the back of the book will be found a numerical index of all the parts shown in this book. This will facilitate locating the illustration and description when only the part number is known.

IDENTIFYING PARTS

Where the construction permits, each part is stamped with its part number. Part numbers represent the same part, regardless of catalog in which they appear.

USE GENUINE NEEDLES AND REPAIR PARTS

Success in the operation of these machines can be secured only with genuine UNION SPECIAL Needles and Repair Parts as furnished by the Union Special Corporation, its subsidiaries and authorized distributors. They are designed according to the most approved scientific principles, and are made with utmost precision. Maximum efficiency and durability are assured.

Genuine needles are packaged with labels marked *Union Special*®. This trademark is your guarantee of the highest quality in material and workmanship.

TERMS

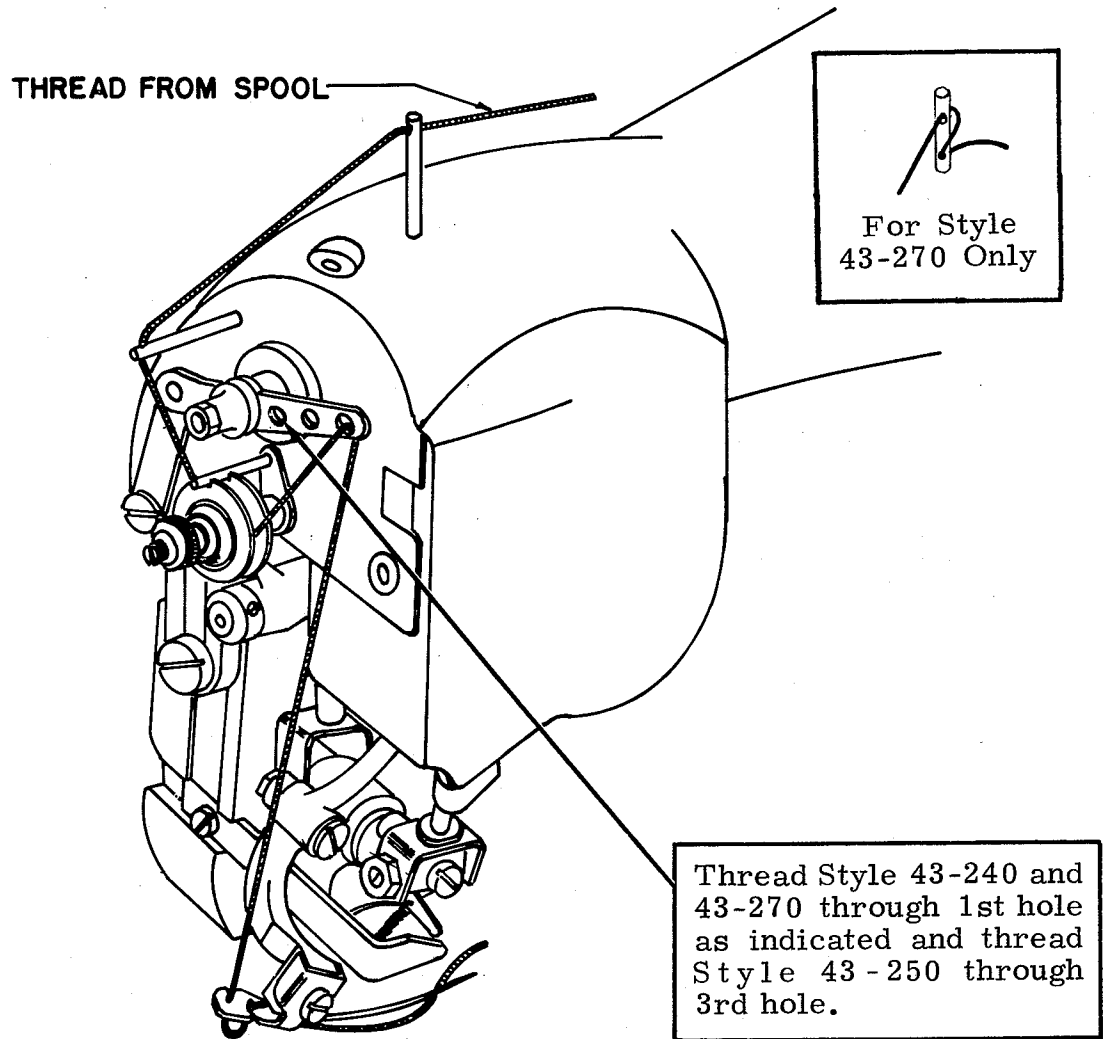
Prices are net cash and subject to change without notice. All shipments are forwarded f. o. b. shipping point. Parcel Post shipments are insured unless otherwise directed. A charge is made to cover postage and insurance.

SPEED

The recommended speed of these machines is 1600 R. P. M.

THREADING

Thread machines in accordance with threading diagram, Fig. 1, below.



OILING

These machines should be oiled twice daily, before the morning and afternoon starts. Use a good grade of straight mineral oil of a Saybolt viscosity of 90 to 125 seconds at 100° Fahrenheit.

Most of the oiling places on these machines are readily identifiable because of the fact they are painted red. However, reference to the oiling diagram (Fig. 2) will be beneficial.

Please note that it will be necessary to open head cover or remove cylinder end cover, and to tilt the machine back from the sub-base to reach some of the oiling places.

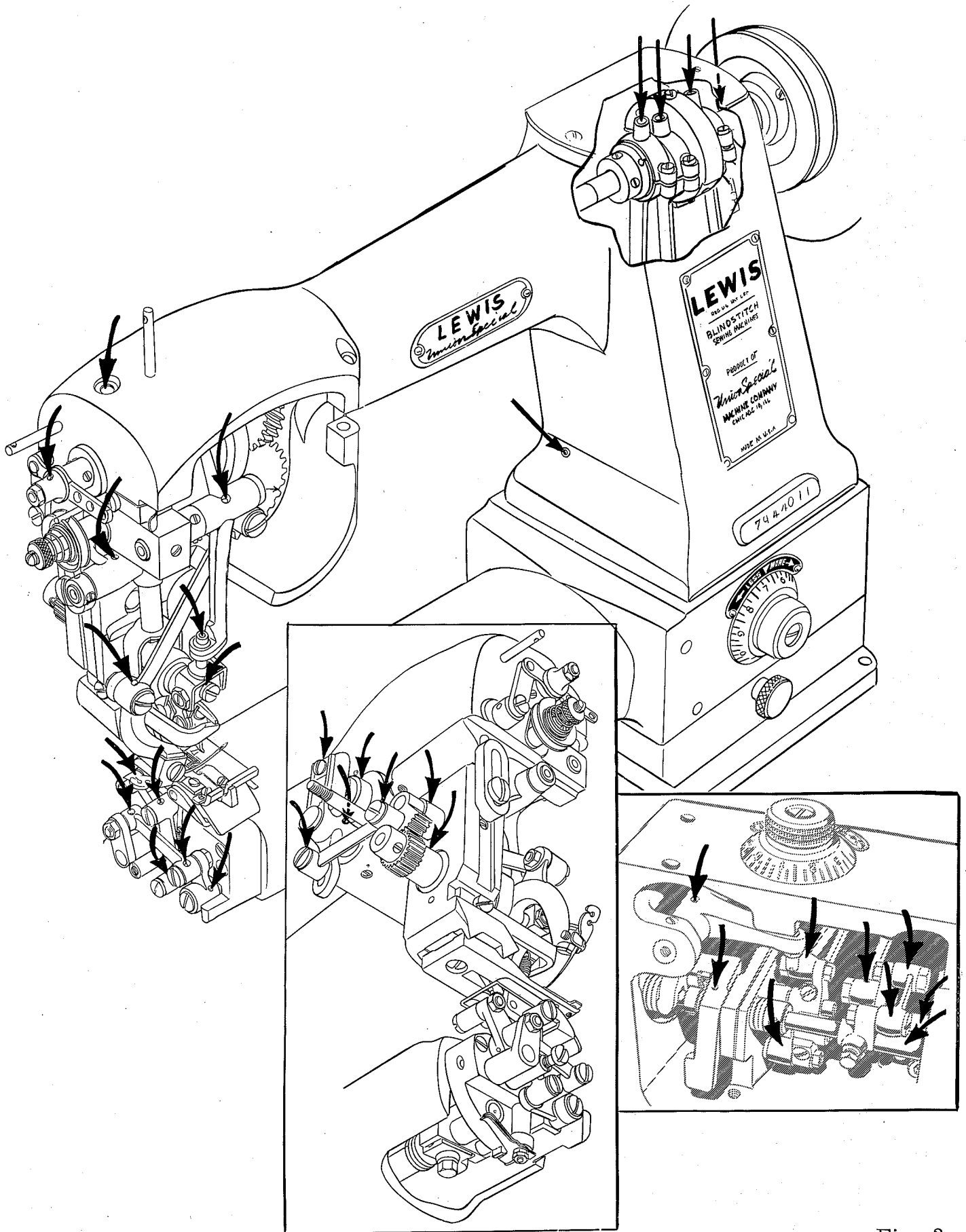


Fig. 2

ADJUSTING INSTRUCTIONS

REMOVING EXCESS PLAY IN CONNECTING RODS

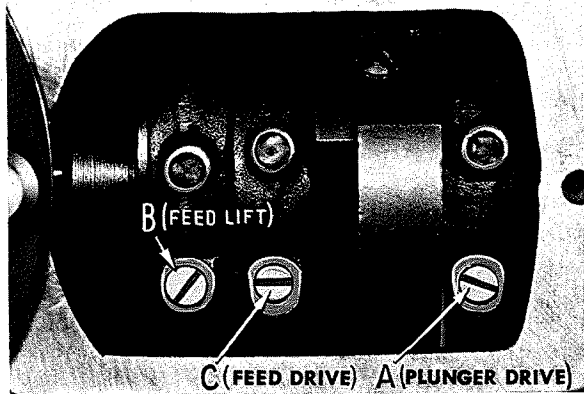


Fig. 3

the arm cover plate back into position.

TIMING NEEDLE WITH PLUNGER

The main shaft drive gear (A, Fig. 4) and the looper cam (B) are spotted on the main shaft. Therefore, the arrow on the hub of the looper cam and on the right side of the drive gear should be in line. The timing is correct if the arrow on gear (C) points to the line on the left side of drive gear (A), or as the handwheel is turned in the operating direction this same arrow is in line with the arrow on the right side of gear (A). To check for proper timing, open front cover and turn handwheel in operating direction until the spot screw (the second screw around as the handwheel is turned in operating direction) in the looper cam (B, Fig. 5) is toward the front. The arrow on the cam will then be in a horizontal position pointing to the right. At this time the arrow on gear (C) should coincide with the arrow on the cam at a position pointing slightly above horizontal as in Fig. 5. If adjustment is necessary, loosen the two screws in drive gear (A) and slide gear to the right until the gears no longer mesh. Turn handwheel in operating direction until the spot in looper cam is to the front. Do not turn the handwheel after the spot is in this position. Now, turn gear (C) until the arrow points to the right and is slightly above a horizontal position. Slide drive gear (A) to the left so the gear teeth mesh and the spot screw lines up with the spot on the main shaft. Retighten the screws. Now, check alignment of the arrows on gears (A and C, Fig. 4). If the arrows do not line up, slide gear (A) to the right once again and turn gear (C) to the left or right as required. Reposition gear (A) so spot screw lines up with the spot on the main shaft and again check the arrow alignment. Repeat this procedure until arrows line up and the spot screw is in line with spot on main shaft, then tighten spot screw and set the screw in drive gear (A).

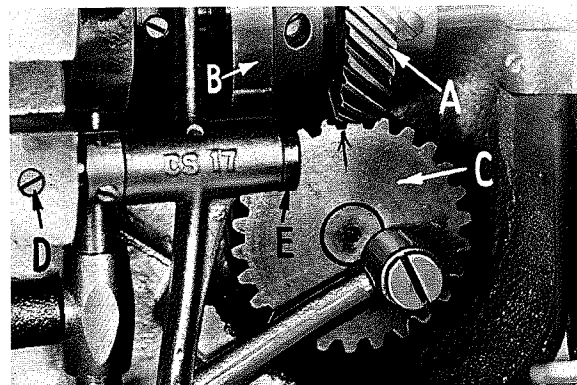


Fig. 4

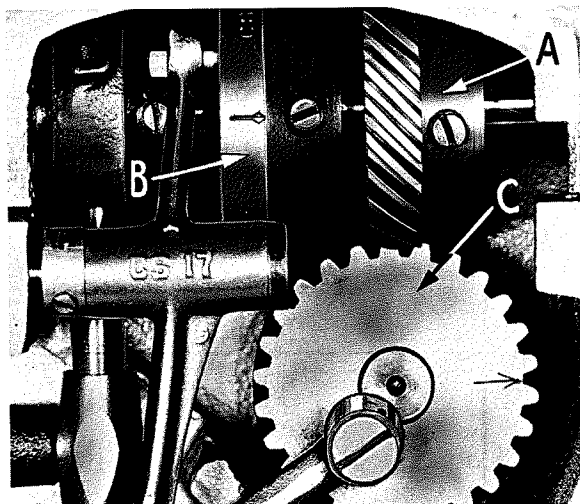


Fig. 5

Oil clearance for the connecting rods is set at the factory. Due to normal wear it may be necessary to remove any excessive play or shake that may develop. Access to connecting rod adjusting screws is through opening in top of arm (Fig. 3). Swing the arm cover plate out of position for access to adjusting screws. Tighten screw (A) in plunger drive connecting rod until machine begins to bind while handwheel is being turned in operating direction, which is away from operator. Then, loosen screw until the machine again turns freely. Repeat the same procedure for feed elevating connecting rod and feed driving connecting rod screws (B) and (C) respectively. Swing

the arm cover plate back into position.

ADJUSTING INSTRUCTIONS (Continued)

It may also be necessary to remove any play or bind that may have developed between gears (A and C, Fig. 5) as a result of normal wear or replacement. To remove any bind or excess play, loosen set screw (A, Fig. 6) and turn bushing (B) in the required direction by inserting a screwdriver in the oil hole on top of the shaft. Tighten screw. Turn the handwheel in operating direction to be sure the machine does not bind.

SETTING THE NEEDLE STROKE

Normal needle stroke setting is correct when the point protrudes approximately $\frac{1}{8}$ inch beyond the right edge of presser foot at the end of its right stroke (Fig. 7). Increase to approximately $\frac{5}{32}$ inch if a larger needle loop is required.

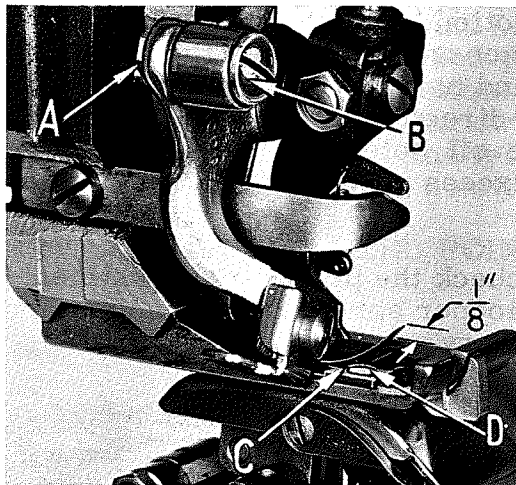


Fig. 7

If adjustment of the needle stroke is necessary, loosen the lock-nut (A, Fig. 7) and turn screw (B) to the right or left as required. Tighten the nut. The needle should travel in the center of the groove in the needle guide (C, Fig. 7). If the needle is deflected from front to the back in its travel, loosen screw (D) holding the needle guide and allow needle to position the guide. Retighten the screw.

When properly adjusted, the points of the looper spreader and the looper frame must move freely without any interference with the presser foot, needle or needle carrier. When the needle is receding from the right side of its stroke, and the looper is on the right side of its stroke, the looper should just clear the top of the needle. The right side of the looper should be approximately $\frac{3}{64}$ inch from the left side of the eye of the needle when the looper point is even with the center of the needle. When the looper is on the left side of its stroke and moving to the back, the point of the needle, moving to the right, should just clear the top of the looper frame.

Before making any adjustment to the looper spreader mechanism, check for excessive play between the looper frame (A, Fig. 8) and the bearing block (B). If excessive play is encountered, it can be removed by loosening nuts (C) and positioning the cone screws (D) accordingly. To adjust the looper spreader mechanism to the right or left, loosen the set screw (D, Fig. 4) and slide the stud (E) in the required direction. Retighten the screw (D). To adjust the looper spreader

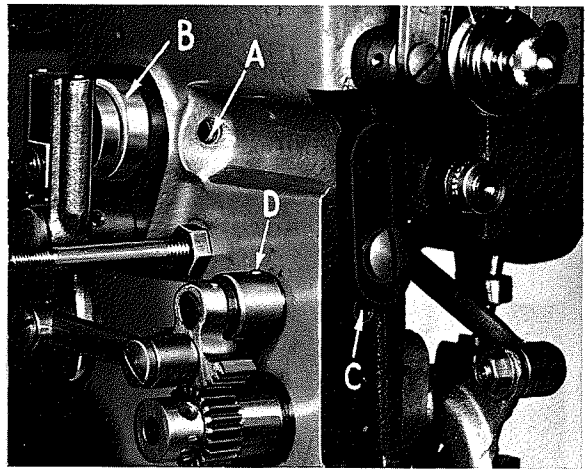


Fig. 6

ADJUSTING THE LOOPER SPREADER

When properly adjusted, the points of the looper spreader and the looper frame must move freely without any interference with the presser foot, needle or needle carrier. When the needle is receding from the right side of its stroke, and the looper is on the right side of its stroke, the looper should just clear the top of the needle. The right side of the looper should be approximately $\frac{3}{64}$ inch from the left side of the eye of the needle when the looper point is even with the center of the needle. When the looper is on the left side of its stroke and moving to the back, the point of the needle, moving to the right, should just clear the top of the looper frame.

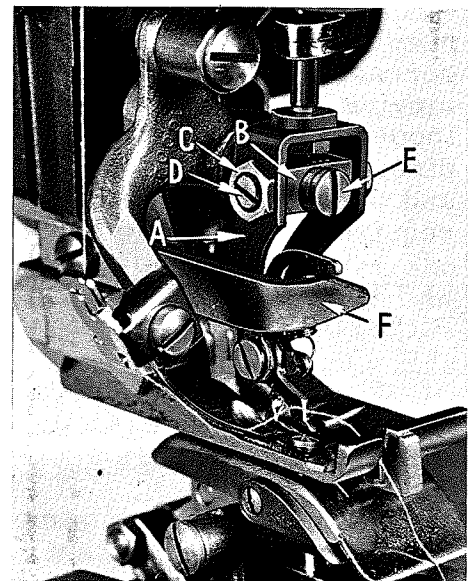


Fig. 8

ADJUSTING INSTRUCTIONS (Continued)

mechanism up or down on both sides of its stroke remove gear cover at back, loosen nut on screw (A, Fig. 9) and slide the link (B) up to raise looper or down to lower it. If the looper spreader mechanism is too close to the needle on one side and too far away on the other loosen the two set screws in gear (C), insert a screwdriver in screw (E, Fig. 8) and turn in the required direction. Turning the screw in a clockwise direction lowers looper on right side of stroke and raises looper on the left side of stroke. Turning screw in a counterclockwise direction acts the reverse. Tighten the set screws.

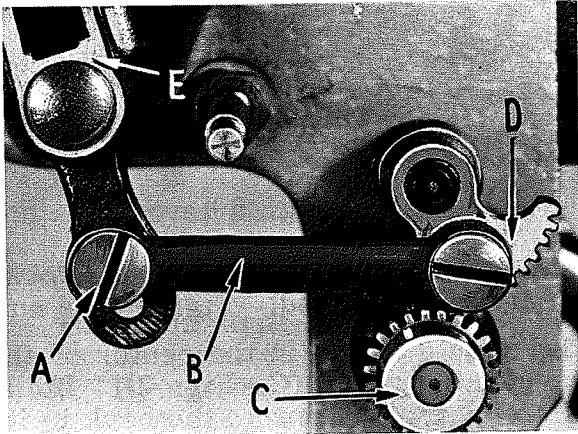


Fig. 9

wheel slowly in the operating direction to check for excess play or bind and retighten the screw (C).

Turn handwheel slowly in operating direction to check the preceding adjustments to make sure there is no interference between the looper spreader mechanism and the other parts. Repeat the adjustments if necessary.

SETTING THE LOOPER OPENER

Looper opener (F, Fig. 8) should be set so that the bottom of the looper spreader point clears the needle by approximately $\frac{1}{32}$ inch when the looper spreader mechanism is in the left hand position and moving to the back. To make this adjustment, remove looper opener from machine and bend in the required direction. Check for clearance between the opener and the looper frame (A). Bend the looper opener as required. Assemble the opener to the machine.

SETTING THE FEED PLATE HEIGHT AND PRESSURE

Turn handwheel in operating direction until the feed point has reached the lowest point of its travel. At this position there should be no play between the feed plate and the presser foot.

To make this adjustment, loosen the screw (A, Fig. 10) and, with the right hand, hold the feed plate against the presser foot. Then, by holding feed link (B) with the left hand, push down feed point until there is $\frac{1}{32}$ inch clearance between the block (C) and the plunger bearing block (D). Then, retighten screw (A).

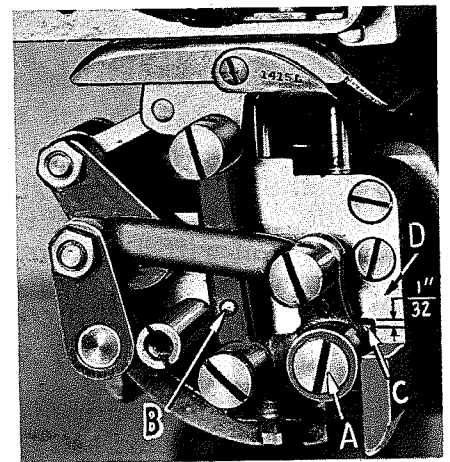


Fig. 10

ADJUSTING INSTRUCTIONS (Continued)

Turn handwheel in operating direction until the feed point reaches its highest position and check to see that the feed point is in the center of the slots in the feed plate. If the feed point is not in proper alignment, loosen screw (A, Fig. 10) and turn the feed plate to align the feed point in the slots. Retighten screw (A).

The feed plate pressure is adjusted at the factory. If it becomes necessary to change the pressure, turn knurled screw (A, Fig. 11) clockwise for more pressure and counterclockwise for less.

SETTING THE FEED POINT HEIGHT

Turn the handwheel in operating direction until the feed point reaches its highest position and the feed plate reaches its lowest position. At this point, there should be 1/8 inch space between the top of the feed plate and the bottom of the presser foot (Fig. 12). To obtain this adjustment, loosen the machine base locking screw (A, Fig. 13) and lay the machine on its back. Then, loosen screw (B, Fig. 11) and hold link (A, Fig. 12) so that the feed point is pressed up against the bottom of the presser foot. Turn the handwheel in operating direction until the feed point reaches its most forward position, and retighten screw (B, Fig. 11).

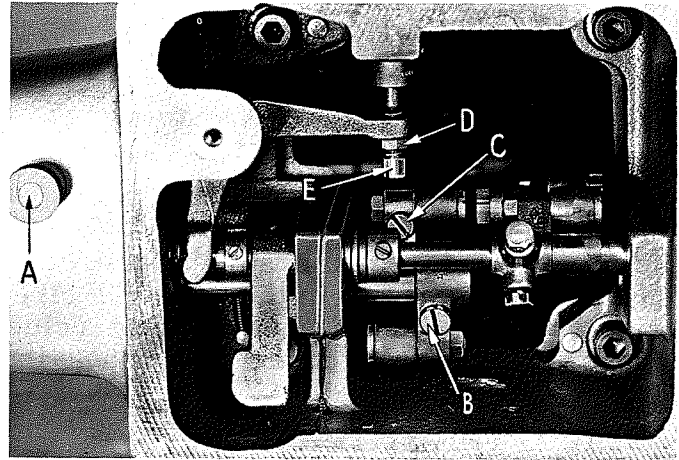


Fig. 11

SETTING BOTTOM FEED POINT IN LINE OF FEED

Turn the handwheel in operating direction until the feed point first touches the presser foot. At this point, the front edge of the feed point should be aligned with the front edge of the knurling on the feed plate. To make this adjustment, loosen screw (C, Fig. 11), and by means of link (A, Fig. 12), move the feed point forward or backward as required. Retighten screw (C, Fig. 11). If, in this adjustment, the feed point has to be moved an appreciable distance, repeat the adjustment "Setting The Feed Point Height" in the previous instructions.

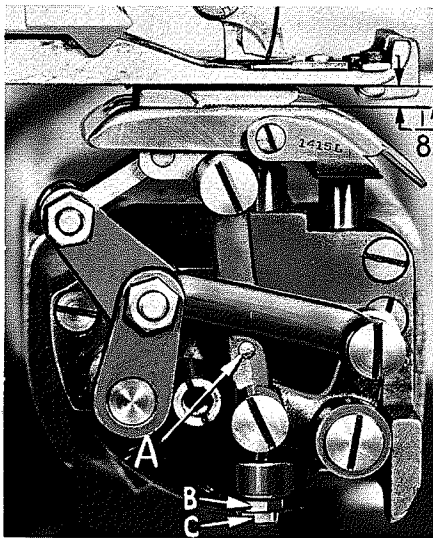


Fig. 12

SETTING THE HEIGHT OF PLUNGER

The height of the plunger is adjusted by turning the knob (B, Fig. 13) clockwise to raise the plunger and counterclockwise to lower it. To provide for the maximum plunger adjustment, there should be 1/32 inch clearance between plunger crank (A, Fig. 14) and the plunger block (B) when the adjusting knob (B, Fig. 13) is turned clockwise as far as it will go. Note that there are pins which stop the knob (B) after each complete revolution. The knob may be pulled out toward the operator to lift it over the stop. The knob can make three complete revolutions. To make the 1/32 inch adjustment, turn the knob clockwise as far as it will go. Loosen locknut (D, Fig. 11) and turn screw (E) in the required direction. Retighten nut (D). Setting is correct when the needle, on its stroke to the right, just clears

ADJUSTING INSTRUCTIONS (Continued)

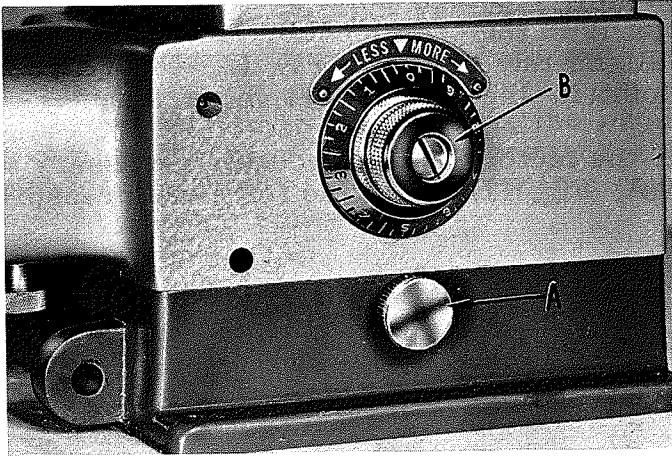


Fig. 13

screw (A, Fig. 15) and adjusting screw (B) are in view. Loosen lock screw and turn adjusting screw in the required direction. Turning the adjusting screw clockwise shortens the stitch and counterclockwise lengthens it. Retighten lock screw and swing the arm cover plate back into position.

SETTING THE STITCH LENGTH OF TOP FEED

The top feed should be synchronized with the bottom feed. If the setting is incorrect, loosen screw (A, Fig. 16) and move the slide (B) up to lengthen the stitch or down to shorten the stitch.

ADJUSTING THE TAKE-UP

Make sure the machine is threaded in accordance with threading diagram (Fig. 1) and sew under power to check stitch. If the looper is not catching the needle thread as a result of the needle not throwing up a large enough loop, then the needle stroke should be adjusted. To make this adjustment, refer to instructions in paragraph one under "Setting The Needle Stroke".

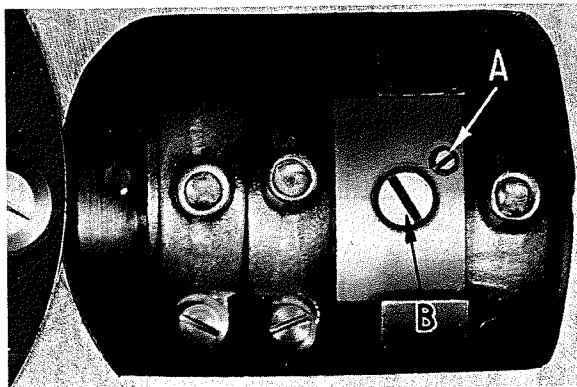


Fig. 15

the top of the plunger, with the adjusting knob in the maximum clockwise position. If after initial setting, further adjustment of height is necessary, it can be accomplished by turning nut (B, Fig. 12) and locknut (C) up or down as required. Check the adjustment so that the needle does not strike the plunger.

SETTING THE STITCH LENGTH OF BOTTOM FEED

Stitch length adjustment is made through the access hole in the top of the arm (Fig. 15). Swing arm cover plate out of position and turn the handwheel in operating direction until lock

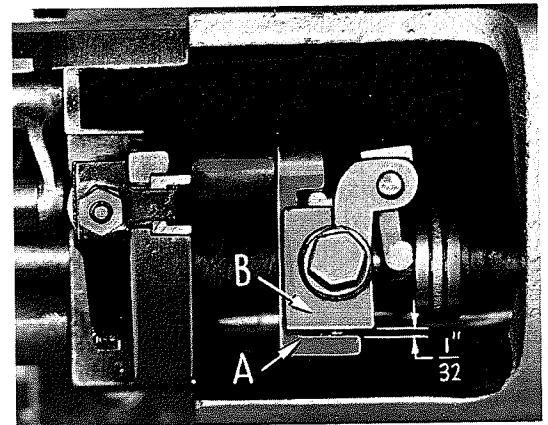


Fig. 14

needle stroke".

The take-up lever (A, Fig. 17) should be set to produce a good stitch with a minimum amount of thread tension. Set the take-up so its downward travel begins when the needle eye, traveling from the right to left, is even with the left side of the cloth opening in the presser foot. Adjustment is made by turning the handwheel in the operating direction until the needle eye is even with the left side of the cloth opening in the presser foot, then loosen set screws (B, Fig. 17) in take-up lever crank and turn nut (C) counterclockwise until take-up begins its downward stroke. Retighten the screws (B).

ADJUSTING INSTRUCTIONS (Continued)

NOTE: This is an approximate setting and may be varied to accommodate different types of thread, stitch length and weights of material.

Thread breakage may result if the needle thread tension is set either too loose or too tight. The tension on the needle thread is regulated by turning thumb nut (D, Fig. 17) to the right or left as required. This tension should be set sufficiently tight to produce a firm stitch. Do not, however, make this adjustment too tight as the thread will draw the goods and will leave impressions or dimples on the face of the garment.

ADJUSTING WIDTH OF BITE (STYLE 43-270)

The spacing between the stitches can be adjusted to a limited degree on machine Style 43-270, by moving the stitch guides on the front of the presser foot. To change width, loosen the two guide screws and move guides left or right as required.

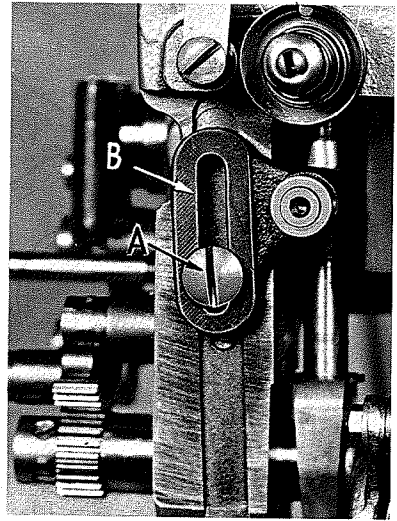


Fig. 16

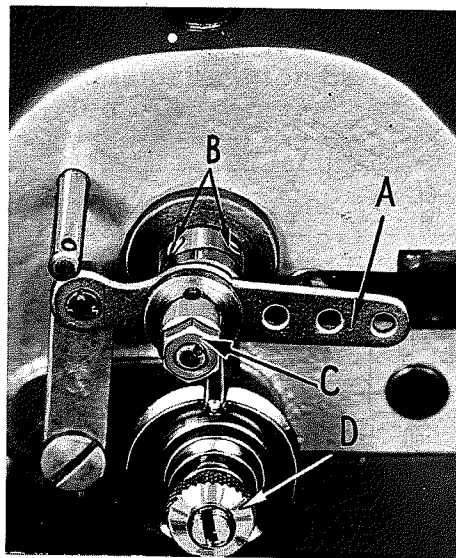
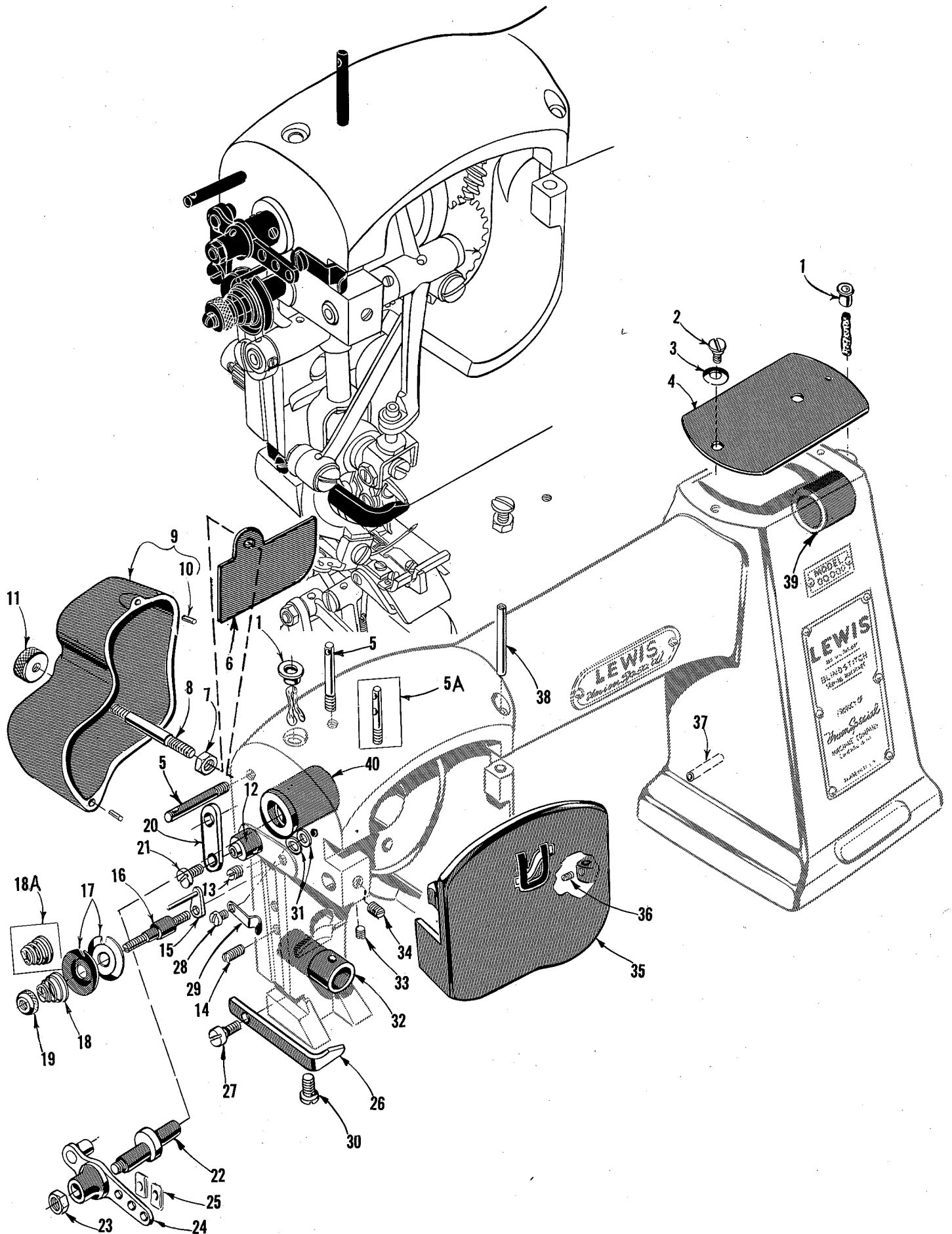
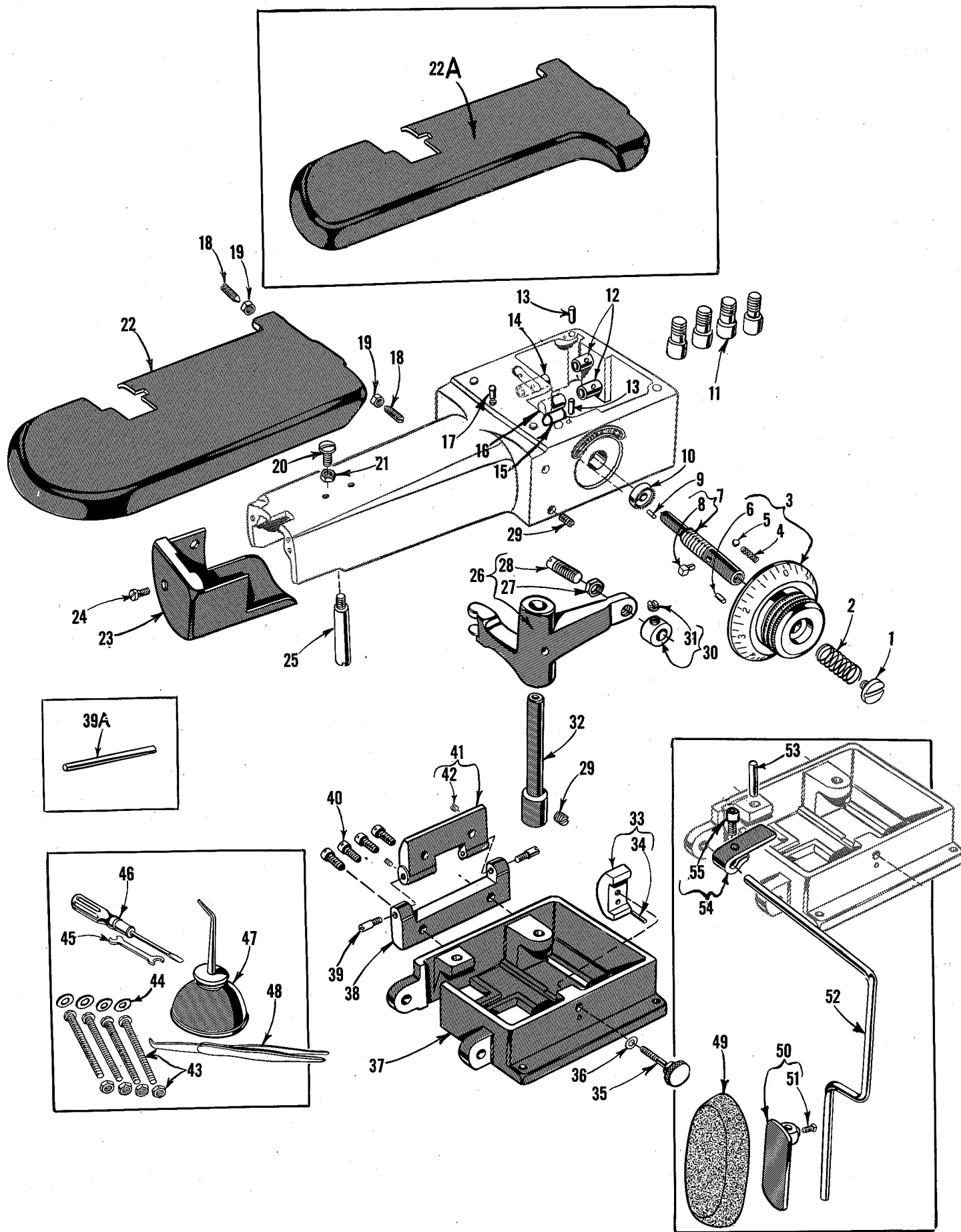


Fig. 17



ARM, COVERS, BUSHINGS AND THREAD TENSION PARTS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	125-23	Oil Cup -----	2
2	1220 L	Screw -----	1
3	1221 L	Spring Washer -----	1
4	1219 L	Arm Cover Plate -----	1
5	CS454	Thread Guide, for Styles 43-240, 43-250 -----	2
	CS454	Thread Guide, for Style 43-270 -----	1
5A	41-55	Thread Guide, for Style 43-270 -----	1
6	8-139	Cover Guard -----	1
7	CS232	Nut -----	1
8	CS467	Stud -----	1
9	CS466 A	Gear Cover, complete -----	1
10	CS469	Pin -----	2
11	CS468	Nut -----	1
12	CS445	Stud, for No. CS444 -----	1
13	CS320-1/2	Set Screw, for No. CS441 A -----	1
14	1003 L	Set Screw, for No. CS434 -----	1
15	CS471 A	Tension Disc Retainer, complete -----	1
16	CS324	Thread Tension Staff -----	1
17	1183 L	Tension Disc -----	2
18	1132 L	Tension Spring, for Styles 43-240, 43-250 -----	1
18A	1132 SL	Tension Spring, for Style 43-270 -----	1
19	1134 L	Knurled Nut -----	1
20	CS444	Link -----	1
21	1329 L-1/2	Screw -----	1
22	CS443	Take-up Lever Crank -----	1
23	1160 L	Nut -----	1
24	CS442 A	Take-up Lever, complete -----	1
25	21-176	Clip Spring, for Style 43-250 only -----	2
26	CS448	Looper Spreader Opener -----	1
27	CS313	Screw -----	1
28	LS314	Screw -----	1
29	CS429	Front Gear Cover Latch -----	1
30	876 L	Screw, for presser foot (See Page 27 for presser foot) -----	1
31	1185 L	Washer, for No. CS429 -----	2
32	CS206	Needle Bar Bushing -----	1
33	CS320-1/2	Set Screw, for No. CS436 -----	1
34	1025 L	Set Screw, for No. CS446 -----	1
35	CS428	Front Gear Cover -----	1
36	1081 L	Set Screw -----	1
37	61-33	Oil Tube -----	1
38	CS463	Hinge Pin, for No. CS428 -----	1
39	CS427	Main Shaft Bushing, right -----	1
40	FP503	Main Shaft Bushing, left -----	1

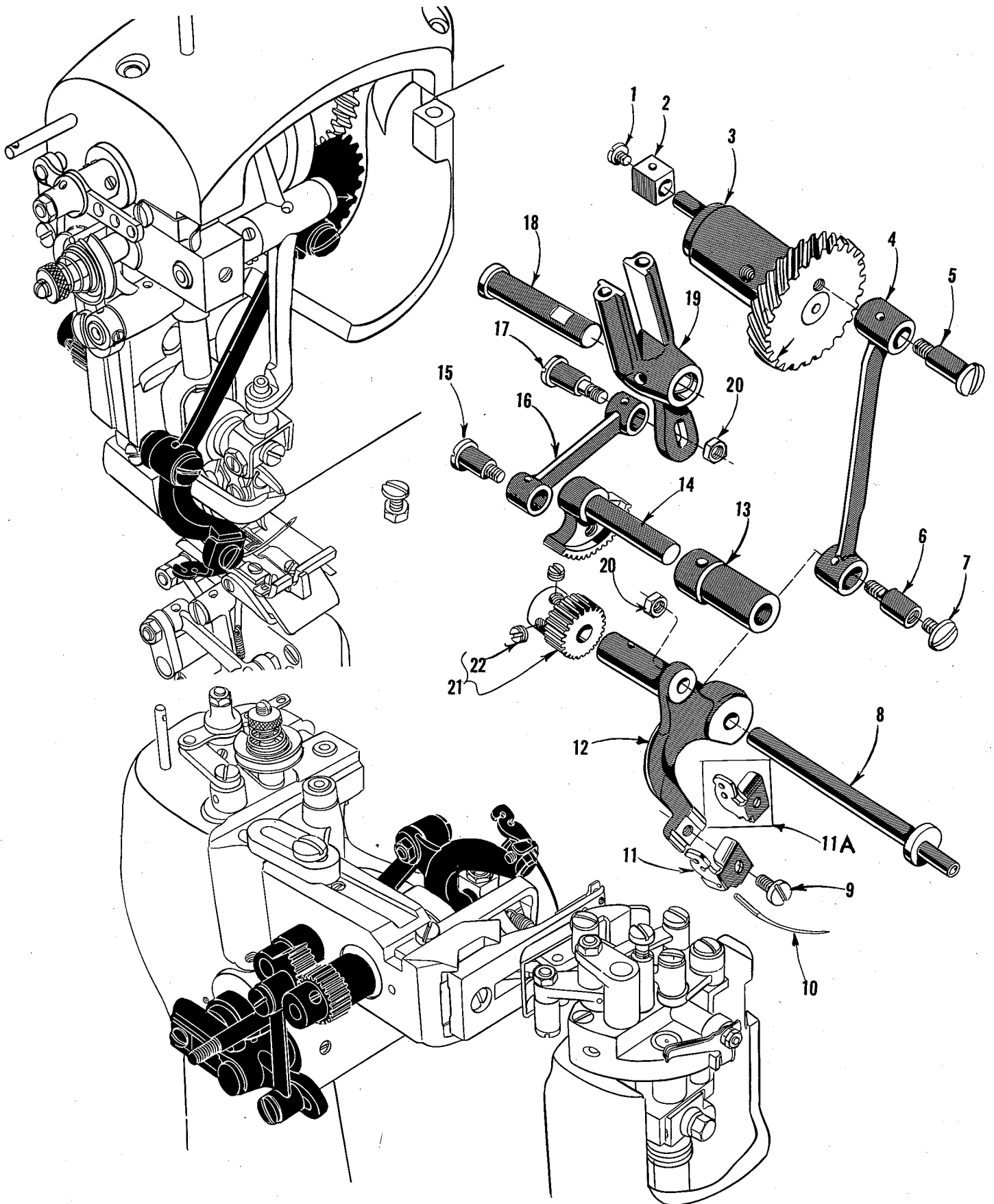


CYLINDER BASE, SUB-BASE, WORK SUPPORT PLATE,
KNEE PRESS AND ACCESSORIES

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	18-1028	Screw -----	1
2	21-404	Spring-----	1
3	4149-30	Plunger Regulator Knob Assembly-----	1
4	21-237	Spring-----	1
5	79-31	Ball-----	1
6	22-C214-4	Stop Pin-----	1
7	418-1026	Plunger Regulating Screw, complete-----	1
8	22-296	Pin-----	1
9	22-C214-4	Stop Pin-----	1
10	44-301	Notched Disc Plate-----	1
11	18-1045	Screw, for base No. 3-90-----	4
12	1321 L	Bushing, for Nos. 1291 L, 1295 L-----	2
13	22-148	Dowel Pin-----	2
14	16-354	Bushing, for feed rocker shaft No. 1259 AL-----	1
15	16-379	Bushing, for plunger rocker shaft-----	1
16	16-356	Bushing, for feed elevating rocker shaft-----	1
17	1055 L	Pin, for spring No. 1283 L-----	1
18	LS398	Pivot Screw-----	2
19	LS299	Nut-----	2
20	FP505	Adjusting Screw-----	1
21	1160 L	Nut-----	1
22	4-136	Work Support Plate, for Styles 43-240, 43-250-----	1
22A	4-137	Work Support Plate, for Style 43-270-----	1
23	32-277	Cylinder Base Cover-----	1
24	CS313	Screw-----	1
25	17-167	Stud, for supporting cylinder base-----	1
26	48-166	Plunger Regulating Bell Crank, large-----	1
27	20-34	Nut-----	1
28	1192 L	Set Screw-----	1
29	1025 L	Set Screw, for No. 14-472-----	1
30	1173 L	Collar-----	1
31	1137 L	Set Screw-----	1
32	14-472	Plunger Regulating Crank Shaft-----	1
33	51-26	Sub-Base Locking Latch-----	1
34	22-C214-2	Pin-----	1
35	18-1030	Sub-Base Locking Latch Screw-----	1
36	40-139	Washer-----	1
37	3-91	Sub-Base-----	1
38	50-262	Sub-Base Hinge Bracket-----	1
† 39	18-959	Hinge Bracket Pivot Screw-----	2
39A	14-508	Hinge Bracket Shaft-----	1
40	18-998	Screw-----	4
41	50-263 L	Cylinder Base Hinge Bracket-----	1
42	1081 L	Set Screw-----	2
43	18-955	Bolt, for holding machine on table board-----	4
44	652-16	Washer, for No. 18-955-----	4
45	1405 L	Double End Wrench, 1/4 inch and 5/16 inch opening-----	1
46	21201	Screwdriver, 9/64 inch round blade, over all length 7 11/16 inches-----	1
47	413	Oil Can-----	1
* 48	660-240	Thread Tweezers-----	1
* 49	660-168	Knee Press Plate Cushion, sponge rubber-----	1
50	4129-18	Knee Press Plate, complete-----	1
51	22508	Screw-----	1
52	71-86	Knee Press Rod-----	1
53	22-301	Pin, for knee lift-----	1
54	45-422	Knee Press Lifter-----	1
55	22652 F-12	Clamp Screw-----	1

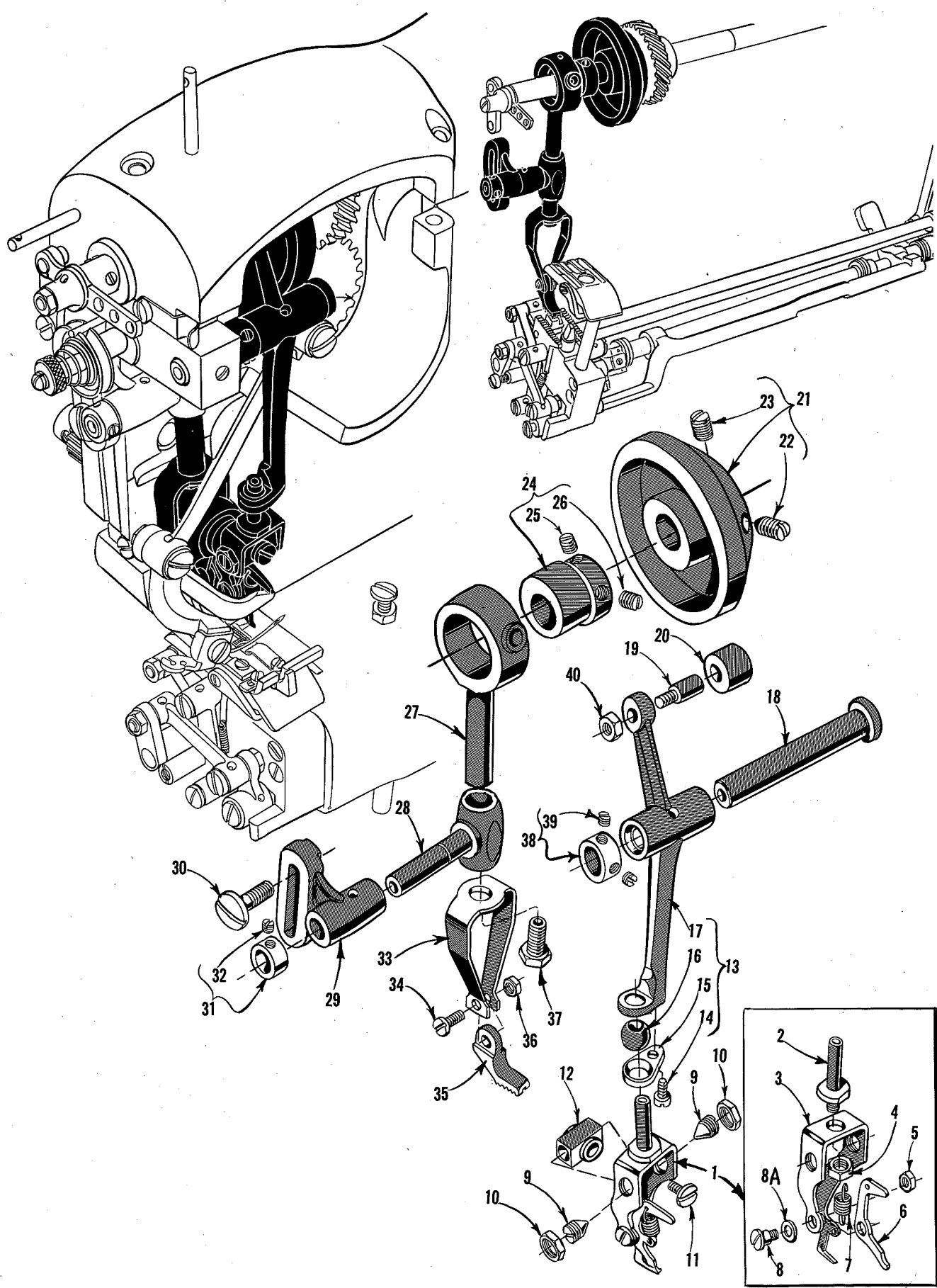
† On new machines, two No. 18-959 will be replaced by one No. 14-508

* Not furnished with machine, order as extra send and charge item



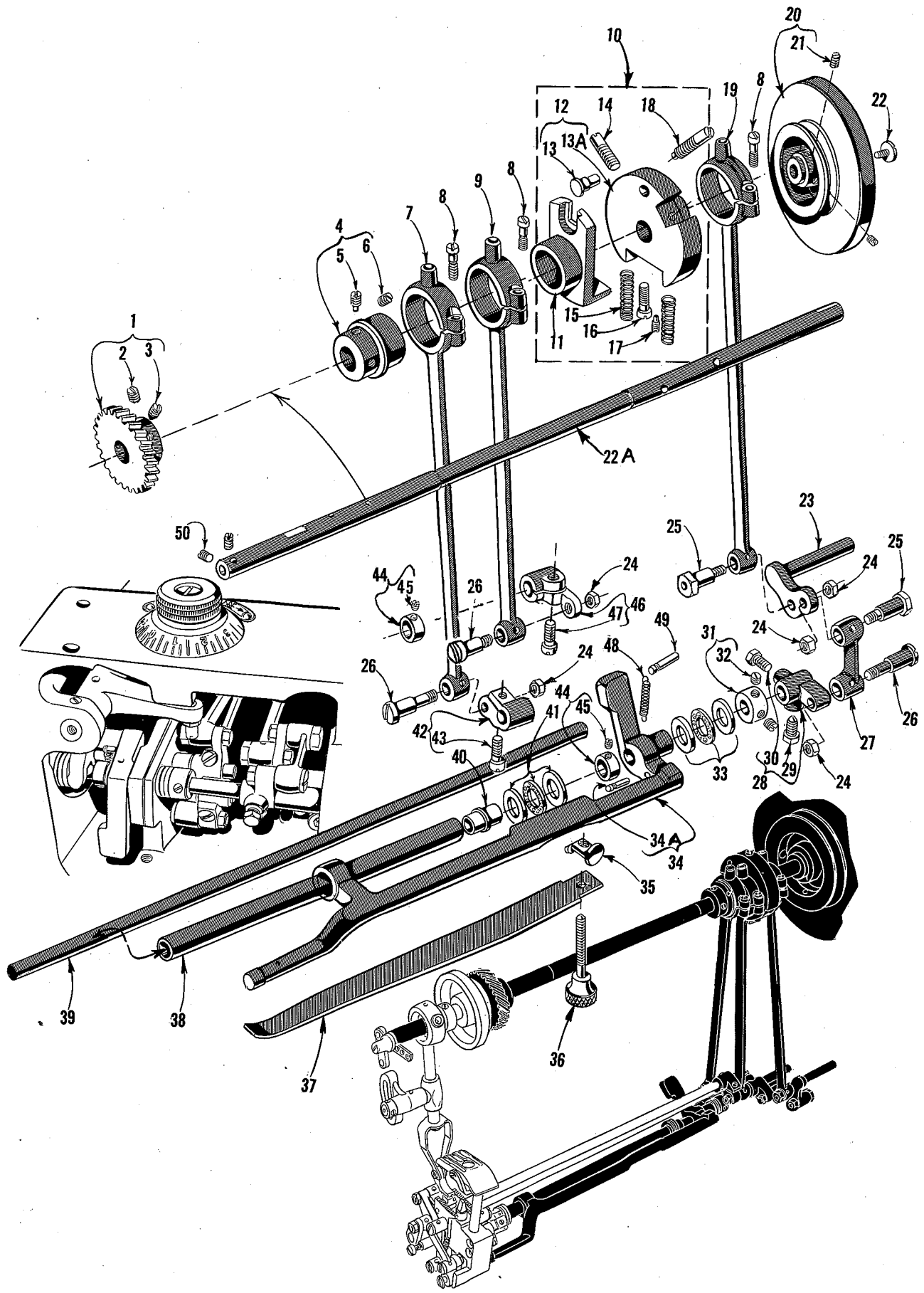
NEEDLE AND LOOPER SPREADER DRIVING PARTS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	CS337	Screw -----	1
2	CS437	Slide Block -----	1
3	CS441 A	Needle and Looper Yoke Crank Shaft Bushing and Gear, complete-----	1
4	CS451	Needle Bar Connecting Link -----	1
5	CS307	Bearing Screw -----	1
6	18-902	Screw -----	1
7	888 L	Screw -----	1
8	CS319	Looper Crank Shaft-----	1
9	CS327	Screw -----	1
10	29 BC-090/036	Needle, for Styles 43-240, 43-250-----	1
	29 BD-110/044	Needle, for Style 43-270 -----	1
11	CS616	Needle Clamp, for Styles 43-240, 43-250 -----	1
11A	30-78	Needle Clamp, for Style 43-270 -----	1
12	CS3 A	Needle Carrier-----	1
13	CS434	Bushing -----	1
14	CS433 A	Looper Rock, complete -----	1
15	CS438	Bearing Screw -----	1
16	CS439	Looper Rock Connecting Link-----	1
17	CS308	Screw -----	1
18	CS436	Looper Driving Yoke Shaft-----	1
19	CS435	Looper Driving Yoke -----	1
20	1160 L	Nut -----	2
21	CS606	Looper Pinion-----	1
22	1029 L	Set Screw-----	2



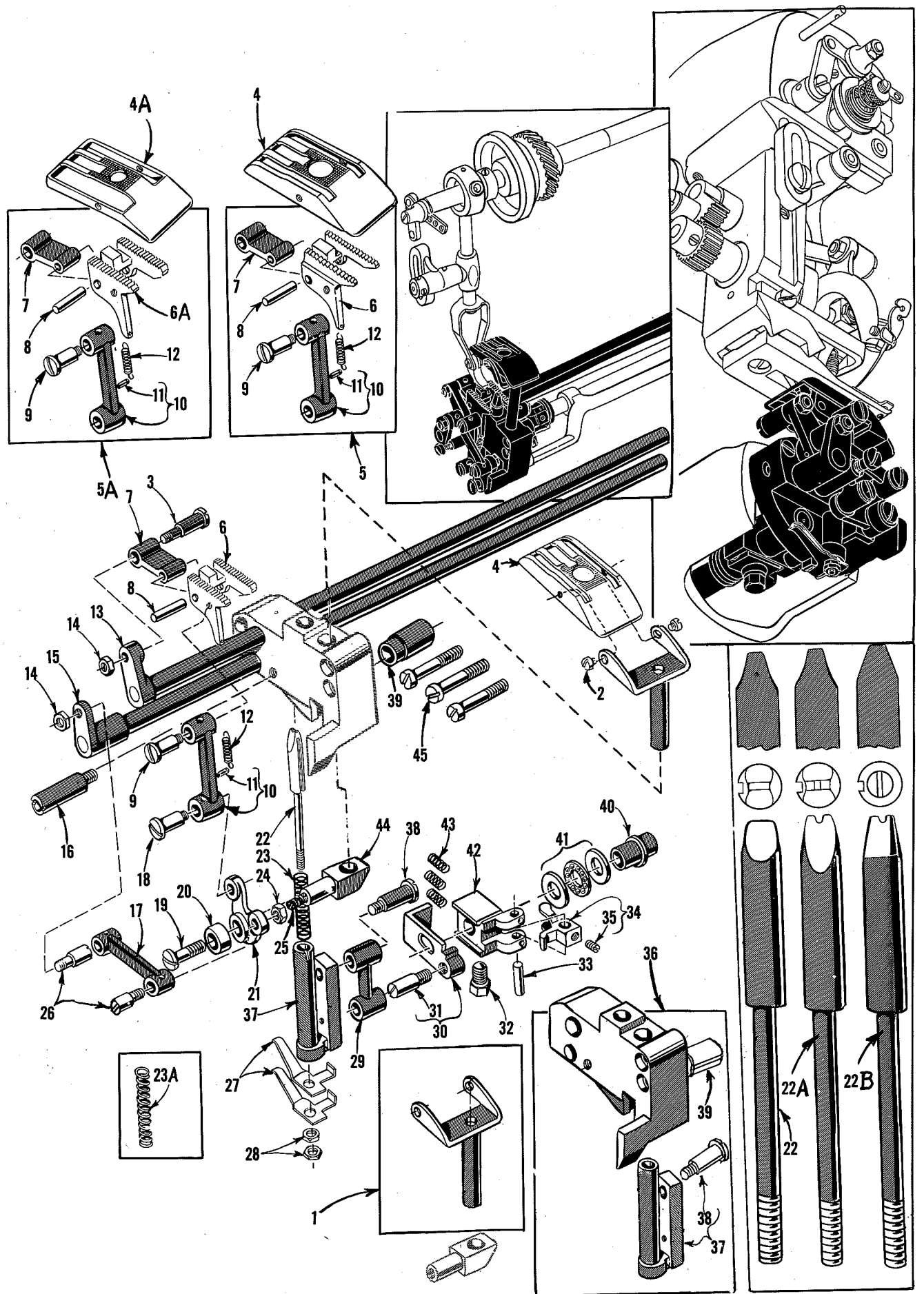
TOP FEED, TOP FEED MECHANISM, LOOPER AND SPREADER PARTS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	CS503 BA	Looper and Spreader, complete-----	1
2	CS216	Looper Staff-----	1
3	CS503-1/2	Looper Frame-----	1
4	1160 L	Nut-----	1
5	1311 L	Nut-----	1
6	CS502	Looper Spreader-----	1
7	CS401	Spring-----	1
8	CS311-1/2	Bearing Screw-----	1
8 A	40-112	Washer, .003 inch thick-----	if required
	40-113	Washer, .005 inch thick-----	if required
9	CS312	Pivot Screw-----	2
10	CS214	Nut-----	2
11	CS335	Screw-----	1
12	CS203	Bearing Block-----	1
13	CS17 A	Looper Ball Joint Connecting Lever, complete-----	1
14	1014 L	Screw-----	1
15	CS6	Cap-----	1
16	CS228	Ball-----	1
17	CS17	Looper Ball Joint Connecting Lever-----	1
18	CS446	Shaft-----	1
19	CS316	Bearing Stud-----	1
20	CS222	Cam Roller-----	1
21	CS608	Looper Cam-----	1
22	CS317	Spot Screw-----	1
23	CS317-1/2	Set Screw-----	1
24	FP535	Eccentric, for top feed, on Styles 43-240, 43-250---	1
25	1025 L	Set Screw-----	1
26	1025 L	Set Screw-----	1
27	FP529	Top Feed Slide Rod, for Styles 43-240, 43-250-----	1
28	FP521	Top Feed Adjuster, for Styles 43-240, 43-250-----	1
29	FP522	Top Feed Adjuster Bracket, for Styles 43-240, 43-250-----	1
30	LS395	Screw, for Styles 43-240, 43-250-----	1
31	1284 L	Collar, for Styles 43-240, 43-250-----	1
32	1022 L	Set Screw-----	1
33	FP526	Top Feed Holder, for Styles 43-240, 43-250-----	1
34	FP527	Screw, for Styles 43-240, 43-250-----	1
35	FP525	Top Feed, for Styles 43-240, 43-250-----	1
36	20-35	Nut, for Styles 43-240, 43-250-----	1
37	FP530	Clamp Screw, for Styles 43-240, 43-250-----	1
38	CS462	Collar-----	1
39	1022 L	Set Screw-----	2
40	1160 L	Nut-----	1



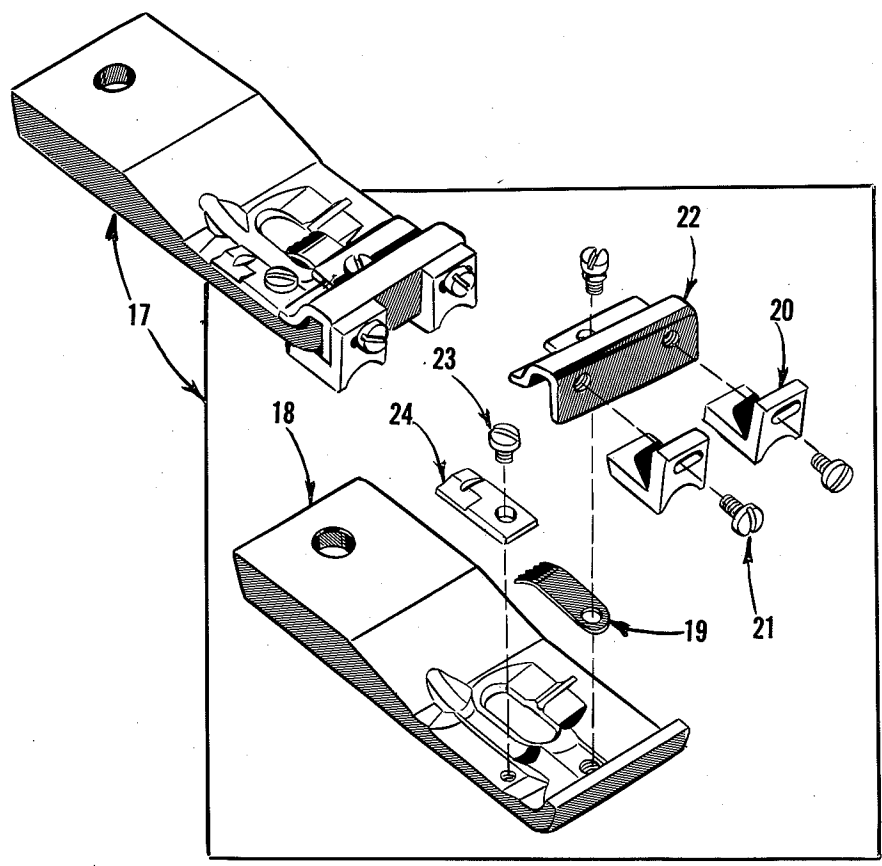
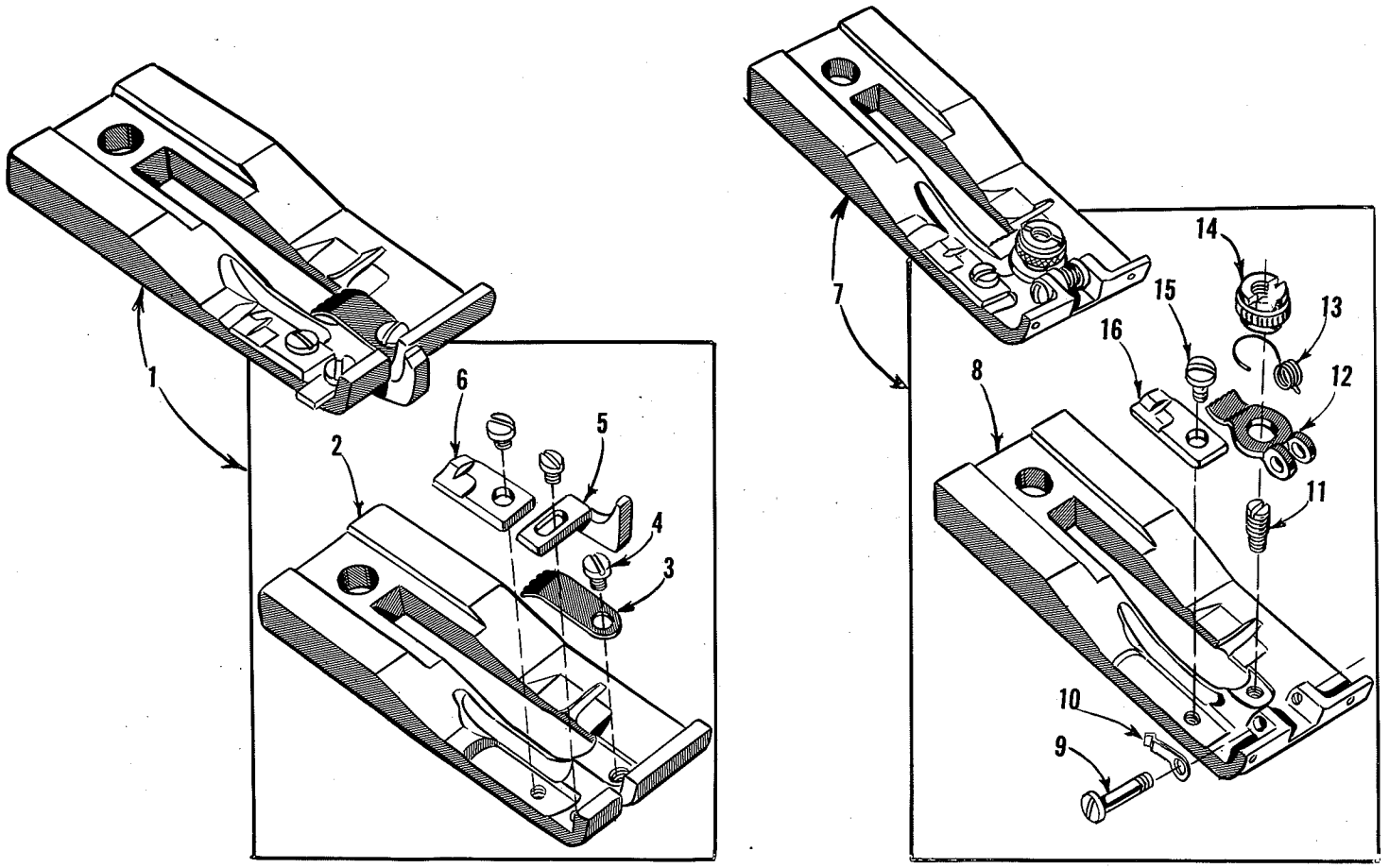
MAIN SHAFT, FEED AND PLUNGER DRIVING PARTS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	CS605	Main Shaft Drive Gear -----	1
2	CS320-1/2	Set Screw -----	1
3	CS320	Spot Screw -----	1
4	1204 L	Feed Elevating Eccentric -----	1
5	1147 L	Spot Screw -----	1
6	1005 L	Set Screw -----	1
7	CS421	Feed Elevating Connecting Rod -----	1
8	1206 L	Screw -----	3
9	CS423	Feed Driving Connecting Rod -----	1
10	CS424 A	Feed and Plunger Crank Disc, complete -----	1
11	1212 L	Feed Adjusting Eccentric -----	1
12	CS424 A-1/2	Feed and Plunger Crank Disc, with guide pin -----	1
13	1208 L	Guide Pin -----	1
13A	CS424	Feed and Plunger Crank Disc -----	1
14	1211 L	Set Screw -----	1
15	1214 L	Spring -----	2
16	1213 L	Screw -----	1
17	1020 L	Spot Screw -----	1
18	1210 L	Spot Screw -----	1
19	CS422	Plunger Connecting Rod -----	1
20	57-45	Handwheel -----	1
21	CS320-1/2	Set Screw -----	2
22	18-748	Screw (not used on later models) -----	1
22A	14-326	Main Shaft -----	1
23	1291 L	Plunger Differential Crank -----	1
24	1009 L	Nut, for 1244 L, 1288 L -----	5
25	1288 L	Screw for CS422, 1292 L -----	2
26	1244 L	Screw -----	3
27	1292 L	Plunger Differential Crank Link -----	1
28	1293 L	Plunger Rocker Crank -----	1
29	1294 L	Spot Screw -----	1
30	1333 L	Set Screw -----	1
31	1027 L	Collar -----	1
32	1029 L	Set Screw -----	2
33	478-11	Ball Bearing, complete with washers, for use without 16-379 bushing -----	1
34	449-32	Feed Depresser Yoke, complete with pin for use without 16-379 bushing -----	1
	449-33	Feed Depresser Yoke, for new machines with 16-379 bushing -----	1
34A	1281 L	Spring Pin -----	1
35	1272 L	Nut -----	1
36	1271 L	Knurled Adjusting Screw -----	1
37	1270 L	Feed Spring -----	1
38	61-82	Plunger Rocker Shaft Tube -----	1
39	1295 L	Plunger Rocker Shaft -----	1
40	16-366	Bushing -----	1
41	478-23	Ball Bearing, complete with washer -----	1
42	LS20 A	Feed Elevating Crank -----	1
43	LS301	Screw -----	1
44	1284 L	Collar -----	2
45	1022 L	Set Screw -----	1
46	448-75	Feed Rocker Crank -----	1
47	1243 L	Screw -----	1
48	1283 L	Feed Depresser Yoke Spring -----	1
49	1055 L	Pin -----	1
50	1022 L	Set Screw, for CS443 -----	2



FEED PLATES, PLUNGERS, FEED DRIVING AND PLUNGER DRIVING PARTS

Ref. No.	Part No.	Description	Amt. Req.
1	49-36	Feed Plate Yoke and Stem, complete	1
2	1414 L	Screw, for feed plate	2
3	1260 L	Screw	1
4	24-285	Feed Plate, for Styles 43-240, 43-250	1
4A	24-316	Feed Plate, for Style 43-270	1
5	FP563 A	Feed Point, complete, for Styles 43-240, 43-250	1
5A	423-329	Feed Point, complete, for Style 43-270	1
6	FP563	Feed Point, for Styles 43-240, 43-250	1
6A	23-329	Feed Point, for Styles 43-270	1
7	1261 L	Feed Link	1
8	1262 L	Hinge Pin	1
9	1671 L	Screw	1
10	1677 AL	Feed Elevating Link, complete	1
11	1254 L	Spring Pin	1
12	1256 L	Feed Retaining Spring	1
13	1259 AL	Feed Rocker Shaft, complete	1
14	1160 L	Nut	2
15	1248 AL	Feed Elevating Shaft, complete	1
16	1667 L	Stud, for No. 4115-72	1
17	46-94	Feed Elevating Link	1
18	1671 L	Screw	1
19	18-745	Bearing Screw	1
20	1672 L	Roll	1
21	1669 L	Feed Elevating Bell Crank	1
22	CS449	Plunger, for Style 43-240	1
22A	FP506	Plunger, for Style 43-250	1
22B	26-178	Plunger, for Style 43-270	1
23	1310 SL	Plunger Spring, for Styles 43-240, 43-270	1
23A	1310 L	Plunger Spring, for Style 43-250	1
24	1160 L	Nut	1
25	18-533	Screw, for feed spring slide block	1
26	1249 L	Bearing Stud	2
27	21-255	Plunger Equalizing Spring	2
28	1311 L	Nut, for plunger	2
29	1304 L	Plunger Frame Link	1
30	48-168	Plunger Crank	1
31	18-1027	Bearing Screw	1
32	1298 L	Spot Screw	1
33	22-297	Pin	1
34	48-165	Plunger Regulating Bell Crank, small	1
35	18-416	Set Screw	1
36	4115-72-4	Feed and Plunger Bearing Block, complete	1
37	4121-3	Plunger Frame	1
38	1306 L	Screw	1
39	16-352	Plunger Shaft Bushing	1
40	16-366	Plunger Rocker Shaft Bushing	1
41	478-23	Ball Bearing, complete with washers	1
42	115-139	Plunger Regulating Block	1
43	21-403	Plunger Crank Spring	3
44	1273 L	Feed Spring Slide Block	1
45	1279 L	Screw, for No. 4115-72	3



PRESSER FEET

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	405-14	Presser Foot, complete, for Style 43-240, for medium weight material -----	1
	*405-13	Presser Foot, complete, for Style 43-240, for light weight material -----	1
	*405-15	Presser Foot, complete, for Style 43-240, for heavy weight material -----	1
2	5-14	Presser Foot Bottom, for presser foot No. 405-14-	1
	5-13	Presser Foot Bottom, for presser foot No. 405-13-	1
	5-15	Presser Foot Bottom, for presser foot No. 405-15-	1
3	CS453	Cloth Retaining Spring -----	1
4	1351 L	Screw-----	3
5	475-73	Edge Guide, for presser feet Nos. 405-13, 405-14-	1
	CS504	Edge Guide, for presser foot No. 405-15 -----	1
6	CS615	Needle Guide -----	1
7	FP549 A	Presser Foot, complete, for Style 43-250, for light and medium weight material -----	1
8	FP549	Presser Foot Bottom -----	1
9	FP555	Hinge Screw -----	1
10	FP560	Retaining Spring -----	1
11	FP556	Screw Stud-----	1
12	FP550	Crown -----	1
13	FP559	Spring -----	1
14	FP558	Adjusting Nut -----	1
15	1351 L	Screw-----	1
16	CS615	Needle Guide -----	1
17	CS455-2 A	Presser Foot, complete, for Style 43-270, small opening for light, medium and heavy weight material--	1
	*CS456-1 A	Presser Foot, complete, for Style 43-270, large opening for extra heavy weight material -----	1
18	CS455-2	Presser Foot Bottom, for presser foot No. CS455-2 A-----	1
	CS456-1	Presser Foot Bottom, for presser foot No. CS456-1 A -----	1
19	CS453	Cloth Retaining Spring -----	1
20	75-245	Guide -----	2
21	1058 L	Screw-----	3
22	50-275	Bracket, for guide No. 75-245-----	1
23	1351 L	Screw-----	1
24	CS615	Needle Guide -----	1

* Not furnished with machine, order as extra send and charge item.

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Union Special Wants to Help You Cut Sewing Machine Maintenance Costs

Union Special is offering two practical systems to help pinpoint and reduce your sewing machine maintenance costs: a record keeping system to help spot machines requiring abnormally high maintenance, and a parts inventory system to speed routine repairs.

Machine Maintenance Records

Repair-prone machines or inexperienced competent operators can eat up your maintenance dollars in short order. To help spot these problems, Union Special suggests two variations of a simple maintenance record keeping system using cards provided by Union Special.

The first system utilizes a "Machine Maintenance Record" card (Form 237) for each sewing machine in a plant. When a repair is required, the card is pulled from the file and the repair date, parts used, and their cost are entered in the spaces provided and the card is refilled.

MACHINE MAINTENANCE RECORD					
MAKER'S NAME		STYLE	TYPE NEEDLE	SERIAL NO.	DATE PURCH.
DATE	SYMBOL PART USED	COST	DATE	SYMBOL PART USED	COST

FORM 237—
Machine Maintenance Record card

The second system is normally used when more detailed information on repair costs is desired. Two record cards are used: a "Repair Request Card" (Form 234), and a "Machine Repair Record" (Form 233). When a machine requires service, the forelady or foreman fills out the top of a "Repair Request Card" and gives it to a mechanic. He fills in the time the repair work is started, the parts used and their cost,

and the completion time. This data is then transferred to the permanent "Machine Repair Record" kept in the office.

Whichever system is used, management now has an invaluable tool to reduce needless maintenance costs.

Repair Part Inventories

While record keeping tells management which machines require abnormally high maintenance, it does little to help reduce the downtime caused by routine repairs. To alleviate this situation, Union Special recommends that manufacturers establish a formal parts inventory system for each type of sewing machine they operate.

Excessive machine downtime and wasted hours by mechanics can be eliminated with an orderly in-plant inventory of the most commonly needed parts. There is no longer a need to cannibalize other machines for spare parts. Long waits for deliveries are avoided and machine downtime is kept to a minimum. The cost of a parts inventory is small when the overall savings are considered.

MACHINE REPAIR RECORD CARD							REPAIR REQUEST CARD		
MAKER'S NAME				MAKER'S SYMBO.			DATE		
DATE				MECH'S NO.	LABOR COST	PARTS COST	TOTAL COST	SERVIC DATE	

FORM 233—
Machine Repair Record card

FORM 234—
Repair Request Card

For free sample copies of the machine record cards and spare part inventory lists for a variety of the most popular machines, contact your local Union Special Representative or write direct to Union Special.

U Union Special
Industrial Sewing Equipment

Style 43-270

Suggested Minimum Spare Parts List*

Part Number	Description	Minimum Quantity Per 5 Machines	Part Number	Description	Minimum Quantity Per 5 Machines
CS455-2A	Presser Foot	1	1213 L	Screw For Stitch Length	1
23-329	Feed Dog	1	1020 L	Set Screw For Stitch Length	2
1671 L	Screw For Feed Dog	2	CS320-1/2	Set Screw For Main Gear	2
CS615	Needle Guide	1	CS320	Spot Screw For Main Gear	2
135 IL	Screw For Needle Guide	1	CS503 BA	Looper and Spreader	1
CS453	Cloth Retaining Spring	1	CS503-1/2	Looper Frame	1
1058 L	Screw For Guides	3	CS502	Looper Spreader	2
26-178	Plunger	1	CS401	Spring	1
1311 L	Nut For Plunger	2	1029	Set Screw	2
1256 L	Feed Retaining Spring	1	CS324	Thread Tension Staff	1
1414 L	Screw For Feed Plate	2	29 BD	Needles (Specify Size)	100

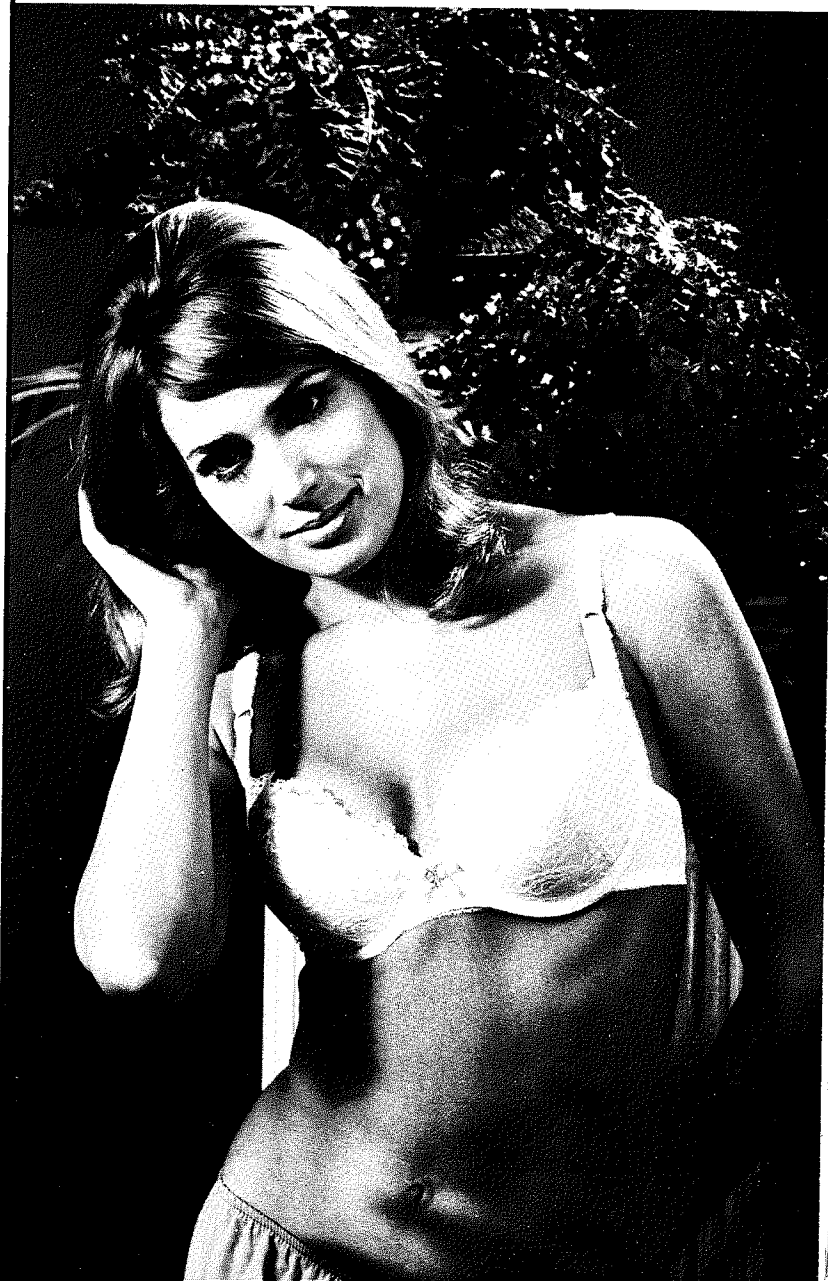
*The parts and quantities listed above are intended to assist you in setting up the initial inventory of spare parts. An efficient inventory can only be established according to actual usage. The nature of the sewing operation will determine actual usage.

Helpful, authoritative information on the most efficient types of equipment for making virtually any machine sewed article is available from Union Special Sales Promotion Department. Among the many interesting, illustrated bulletins that are available without obligation are the following:



- No. 240, "Men's, Women's, Children's Footwear"
- No. 249, "Rainwear"
- No. 250, "Men's Dress Shirts"
- No. 251, "Service Shirts and Pants"
- No. 252, "Men's Shorts and Pajamas"
- No. 253, "Overalls, Coveralls, and Dungarees"
- No. 254, "Men's Knit Underwear"
- No. 256, "Knit Outerwear"
- No. 259, "Men's Sports Shirts"
- No. 260, "Work Gloves"
- No. 262, "Cotton, Burlap, Jute, and Multiwall Paper Bags"
- No. 263, "Men's Clothing"
- No. 264, "Men's Women's, Children's Jackets"
- No. 265, "Women's Wear"
- No. 266, "Women's Wear And High Fashion"
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