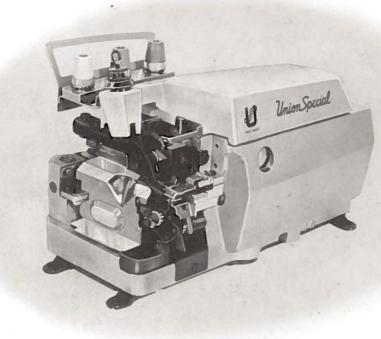


Union Special

INDUSTRIAL SEWING MACHINES

FINEST QUALITY



CLASS 39500

HI-STYLED HIGH SPEED TWO OR THREE THREAD HEMMER OR SERGER DIFFERENTIAL FEED MACHINES

Union Special MACHINE COMPANY

CHICAGO From the library of: Superior Sewing Machine & Supply LLC

STYLE 39500 MC

CATALOG No. 103 MC

Catalog No. 103 MC (Supplement to Catalog No. 103 FA)

INSTRUCTIONS

FOR

ADJUSTING AND OPERATING

LIST OF PARTS

CLASS 39500

Style

39500 MC

First Edition

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Union Special MACHINE COMPANY

INDUSTRIAL SEWING MACHINES

Printed in U.S.A.

August, 1969

IDENTIFICATION OF MACHINES

Each Union Special machine is identified by a Style number on a name plate on the machine. Style numbers are classified as standard and special. Standard Style numbers have one or more letters suffixed, but never contain the letter "Z". Example: "Style 39500 MC". Special Style numbers contain the letter "Z". When only minor changes are made in a standard machine, a "Z" is suffixed to the standard Style number. Example: "Style 39500 MCZ".

Styles of machines similar in construction are grouped under a Class number, which differs from the Style number in that it contains no letters. Example: "Class 39500".

APPLICATION OF CATALOG

This catalog is a supplement to Catalog No. 103 FA and should be used in conjunction therewith. Only those parts used on Style 39500 MC, but not on Style 39500 FA are illustrated and listed at the back of this catalog. 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. 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.

This catalog applies specifically to the standard Style of machine as listed herein. It can also be applied with discretion to some Special Styles of machines in Class 39500. References to directions, such as right, left, front, back, etc., are given from the operator's position while seated at the machine. Operating direction of handwheel is away from operator.

STYLE OF MACHINE

Hi-Styled High Speed, Single Curved Blade Needle, One Looper-One Spreader Two Thread and Two Looper Three Thread Overseaming Machine. Differential Feed, Trimming Mechanism with Spring Pressed Lower Knife, Automatic Lubricating System.

39500 MC Light to medium duty, two way combination machine, for two or three thread blind hemming or serging small diameter light weight rayon, silk, wool, cotton, flat and ribbed knit materials. Seam specifications 503 EFc-1, or 505 EFd-1. Standard seam width for hemming 1/8 inch and for serging 3/16 inch. Stitch range 8 to 30 per inch. Cam adjusted main and differential feeds. Maximum recommended speed 7000 R.P.M.

OILING

CAUTION! Oil was drained from machine when shipped, so reservoir must be filled before beginning to operate. Oil capacity of Class 39500 is six ounces. A straight mineral oil of a Saybolt viscosity of 200 to 250 seconds at 100° Fahrenheit should be used.

Machine is filled with oil at spring cap in top cover. Oil level is checked at sight gauge on front of machine. Red bulb on oil level indicator should show between gauge lines when machine is stationary.

Machine is automatically lubricated. No oiling is necessary, other than keeping main reservoir filled. Check oil daily before the morning start; add oil as required.

The oil drain plug screw is located at back of machine near bottom edge of base. It is a magnetic screw designed to accumulate possible foreign materials which may have entered the crank case. It should be removed and cleaned periodically.

NEEDLES

Each Union Special needle has both type and size number. The type number denotes the kind of shank, point, length, groove, finish and other details. The size number, stamped on the needle shank, denotes largest diameter of blade, measured in thousandths of an inch, midway between shank and eye. Collectively, type and size number represent the complete symbol which is given on the label of all needles packaged and sold by Union Special.

Class 39500 machines use a curved blade needle. The standard recommended needle for Style 39500 MC is Type 154 GAS. Below is the description and sizes available of the recommended needle.

Type No.

Description and Sizes

154 GAS Round shank, round point, curved blade, standard length, single groove, struck groove, spotted, chromium plated and is available in sizes 022, 025, 027, 029, 032, 036, 040, 044, 049, 054.

To have needle orders promptly and accurately filled, an empty package, a sample needle, or the type and size number should be forwarded. Use description on label. A complete order would read: "1000 Needles, Type 154 GAS, Size 027".

Selection of proper needle size is determined by size of thread used. Thread should pass freely through needle eye in order to produce a good stitch formation.

Success in the operation of Union Special machines can be secured only by use of needles packaged under our brand name, *Union Special*. which is backed by a reputation for producing highest quality needles in materials and workmanship for more than three-quarters of a century.

CHANGING NEEDLES

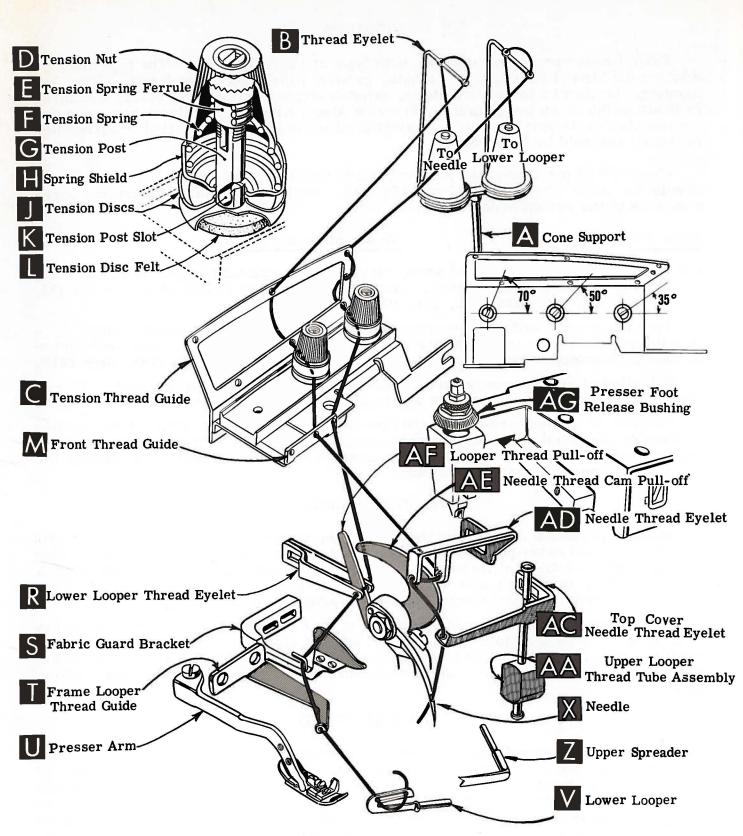
Release pressure on presser foot by turning presser foot release bushing (AG, Fig. 1 or 1A) and swing presser arm (U) out of position. Turn handwheel in operating direction until needle is at its lowest point of travel. Using hexagonal socket wrench No. 21388 AU, furnished with machine, loosen needle clamp nut about 1/4 turn. Again turn handwheel until needle is at high position; withdraw needle.

To replace needle, leave needle holder at high position and, with the flat to the left, insert needle in holder until it rests against stop pin. Keeping needle in this position, turn handwheel until holder is again at its low point of travel; then tighten nut. Return presser arm (U) to position and re-lock presser foot release bushing (AG).

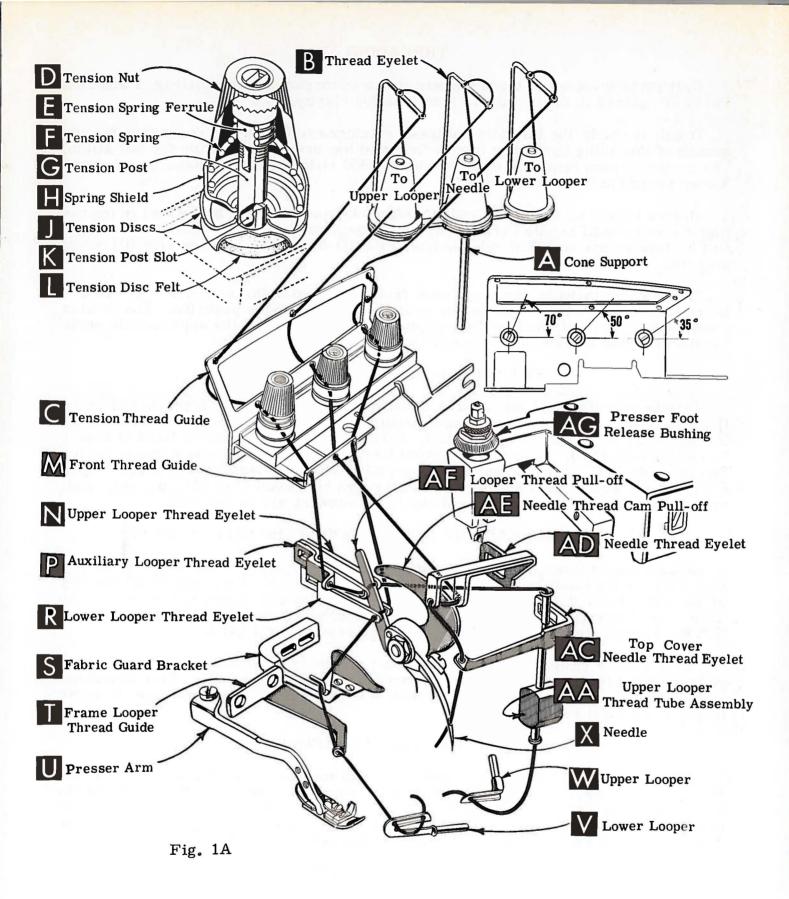
THREAD STAND

After thread comes from cones on cone support (A, Fig. 1 or 1A) it is brought up through the back hole of thread eyelet (B), then down through the front hole of thread eyelet. Next, the upper looper thread (505 STITCH only) and the needle thread are threaded through the upper hole of tension thread guide (C) from front to back, and then through the lower hole, from back to front. The lower looper thread is threaded through the upper hole of the tension thread guide (C) from back to front, through the middle hole from front to back and then through the lower hole from back to front. All threads then continue between the tension discs (J), through tension post slot (K) in tension post (G) and on through eyelets in front thread guide (M).

NOTE: Refer to Fig. 1 for threading 503 stitch or Fig. 1A for threading 505 stitch.







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THREADING

Only parts involved in threading are shown in threading diagram (Fig. 1 and 1A). Parts are placed in their relative positions for clarity.

It will simplify the threading of these machines to follow the recommended sequence of threading the lower looper first and the needle second for the 503 stitch. The recommended sequence of threading the 505 stitch is lower looper first, upper looper second and the needle third.

Before beginning to thread, swing cloth plate open and turn handwheel in operating direction until needle (X) is at high position. Now release pressure on presser foot by turning presser foot release bushing (AG) and swing presser arm (U) out of position.

Be sure the threads, as they come from the tension thread guide (C), are between tension discs (J) and in tension post slots (K) in tension posts (G). The tension posts should be positioned so the tension post slot will be at the approximate angle for the different threads as indicated in Fig. 1 and 1A.

TO THREAD THE LOWER LOOPER

Double end of thread and lead it through the right eyelet of front thread guide (M, Fig. 1 or 1A). Then lead thread through both eyes of lower looper thread eyelet (R, Fig. 1 or 1A) from right to left. NOTE: thread must pass in front of looper thread pull-off (AF). Lead thread behind fabric guard (S) and through frame looper thread guide (T). Turn handwheel in operating direction until heel of lower looper (V) is all the way to the left, then thread through both eyes from left to right. Left eye of lower looper can be threaded easily if tweezers are in left hand.

TO THREAD THE UPPER LOOPER (505 STITCH ONLY)

Double end of thread and lead it through the left eyelet of front thread guide (M, Fig. 1A). Turn handwheel until point of upper looper (W, Fig. 1A) is all the way to the left. Lead thread through auxiliary looper thread eyelet (P) from back to front, then through both eyes of upper looper thread eyelet (N) from left to right. NOTE: Thread must pass in front of looper thread pull-off (AF).

After pulling up upper looper thread tube assembly (AA), lead thread under neck of top cover casting and down through thread tube assembly (AA). Pull thread out bottom of tube; push tube down and then insert thread through the eye of upper looper from front to back.

TO THREAD THE NEEDLE

Double end needle thread and lead it through middle eyelet of front thread guide (M, Fig. 1 or 1A). Then turn handwheel in operating direction until needle (X) is at its highest position. Insert needle thread from right to left, through both eyes of needle thread eyelet (AD), under neck of top cover casting; then down through hole in top cover needle thread eyelet (AC). Thread needle from front.

THREAD TENSION

The amount of tension on the needle and looper threads is regulated by tension nuts (D, Fig. 1 or 1A). Tension on threads should be only enough to secure proper stitch formation.

PRESSER FOOT PRESSURE

Sufficient presser foot pressure to feed work uniformly should be maintained. Should it be necessary to increase or decrease the amount of pressure on presser foot, loosen lock nut (A, Fig. 2) and turn adjusting screw (B). Adjusting screw has a right hand thread, so tightening increases pressure, loosening decreases pressure. When pressure adjusting screw (B) has been properly set, tighten lock nut (A). With presser foot resting on throat plate, position locking nut (C) so that its under surface is approximately 1/32 inch to 1/16 inch from the top surface of adjusting screw (B). Set cap (D) against locking nut (C).



Fig. 2

FEED ECCENTRICS

Feed eccentrics used in Style 39500 MC machines have been selected to produce approximately 14 stitches per inch. It will be noted that the part number of the main feed eccentric is No. 39540 B-14, while that of the differential feed eccentric is No. 39540 B-8. Minor numbers of the part symbol indicate approximately the number of stitches obtainable when using that eccentric. Unless otherwise specified, machine will be shipped with above combination of eccentrics.

Generally speaking, differential (right hand) feed eccentric determines number of stitches produced; main (left hand) feed eccentric is selected in relation to degree and direction of stretch of material being sewn, or type of operation.

Following stitch number feed eccentrics are available under No. 39540 B-4, -5, -6, -7, -8, -9, -10, -11, -12, -13, -14, -15, -16, -18, -20, -22, -24, -26, -28, -30, -32, -34, -36, -40. Only two eccentrics are supplied with each machine. Additional eccentrics may be ordered separately. To order an eccentric, use No. 39540 B with a minor number suffixed to indicate number of stitches desired. Example: "39540 B-8".

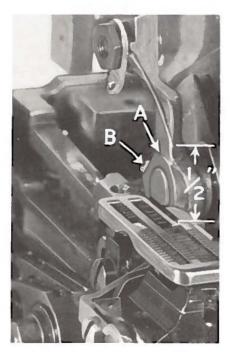


Fig. 3

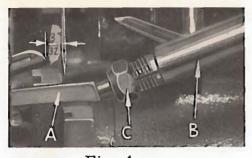
ASSEMBLING AND ADJUSTING SEWING PARTS

Before assembling and adjusting sewing parts, remove cloth plate, fabric guard, chip guard, upper knife assembly, lower knife holder assembly, hemming guide assembly; then follow this suggested sequence.

SETTING THE NEEDLE

With throat plate assembled in position, needle should center in the front end of needle slot. When needle is at high position, needle point should be set 1/2 inch above throat plate (Fig. 3). To align needle or set the height above throat plate, move needle driving arm (A, Fig. 3) by loosening clamp screw (B). Remove throat plate, after needle has been set properly and clamp screw (B) has been tightened.

At this point, insert lower looper (A, Fig. 4) into bar (B). With lower looper at left end of its stroke, set looper point 3/32 inch from center of needle (Fig. 4) using looper gauge No. 21225-3/32. Do not have lower looper deflecting needle. Tighten nut (C). Now assemble differential (front) feed dog.



SETTING THE REAR NEEDLE GUARD

Set rear needle guard (A, Fig. 5) as high as possible, without interfering with either lower looper or movement of lower knife holder, but still in position to deflect needle forward .002 - .004 inch. Screw (B) is used to set rear needle guard. Make sure there is no interference between rear needle guard and lower looper.

Fig. 4

SETTING THE LOWER LOOPER

Now finish lower looper adjustment. As lower looper moves to the right, its point should be set into the needle scarf (A, Fig. 6) until the needle springs forward from rear guard surface another .002 - .004 inch.

SETTING THE FRONT NEEDLE GUARD

Assemble front needle guard (C, Fig. 5). When lower looper is springing needle off back guard, set front needle guard as close as possible to needle without touching. Screw (D) is used to adjust and set front needle guard. After this setting, make sure there is no interference between needle guard and differential feed dog.

SETTING THE UPPER LOOPER OR SPREADER



Insert upper looper (A, Fig. 7) or upper spreader in its holder. Screw (B) holds the upper looper or spreader in its holder, and permits the upper looper or spreader to be pushed in or out, or turned around its shank. Insert upper looper or spreader holder into shaft, if not already in place. Screw (C, Fig. 7) on clamp collar holds upper looper or spreader holder in the shaft, and allows holder to be rotated or adjusted laterally.

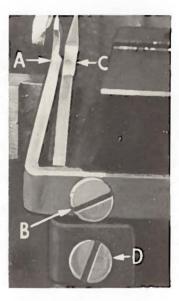


Fig. 5

Fig. 6 Preliminary Setting: When the upper looper or spreader is at the right end of its stroke, the upper looper or spreader holder should be set to position the upper looper or spreader shank slightly back of vertical (Fig. 7). Top end of the upper looper or spreader shank should extend 1/32 to 1/16 inch above the upper looper or spreader holder (Fig. 7).



Fig. 7

As the upper looper or spreader moves from right to left, the point of the upper looper or the Veenotch of the spreader should pass just behind the eye of the lower looper, with approximately .002 inch clearance between the upper looper or spreader and the lower looper (Fig. 8).

Turn the handwheel until the upper looper or spreader is at the left end of its travel. At this position, the point of the upper looper or the lower point of the upper spreader should extend about 5/32 inch to the left of the centerline of the needle and also be 15/32 inch above the top of the throat plate (Fig. 9). If resetting is necessary, do it by moving the upper looper or spreader holder (A, Fig. 9).

SETTING THE UPPER LOOPER OR SPREADER (Continued)



Fig. 8

SETTING THE FEED DOGS

Now assemble main (back) feed dog (B, Fig. 10) and chaining feed dog (C). Set all feed dogs (A, B, C, Fig. 10) so the top surfaces of the teeth all lie in the same plane. This can be checked by sighting across the teeth with a straight edge. Now assemble throat plate. Feed dogs should now be leveled with throat plate surface by

Now check setting to avoid interference between the upper looper or spreader and the needle on the needle downstroke. If needle rubs the back of upper looper or spreader, pull the upper looper or spreader out of its holder slightly and rotate looper a short distance counterclockwise, looking from left end of machine. These same adjustments, in opposite movement, will reduce the clearance between the upper looper or spreader and the needle. Reset to maintain dimension of Figs. 8 and 9.



Fig. 9

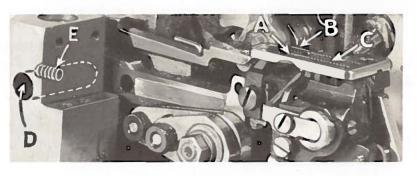


Fig. 10

rotating feed tilting adjusting pin (D). This pin raises or lowers the back end of feed bar.

The feed dogs should be set level at the time the teeth first appear above throat plate. Screw (E) locks feed tilting adjusting pin in place. Now set the main and differential feed dog teeth 3/64 inch above the throat plate, and chaining feed dog teeth flush with surface of throat plate.

SETTING THE LOWER KNIFE

Replace lower knife holder assembly. In replacing the lower knife holder assembly, tighten screw (A, Fig. 11) so that when the face of the flange on sleeve (B) seats against the throat plate mounting bracket (C) a free lateral motion of the lower knife and holder assembly is obtained when the knife is manually pressed at its upper corner. Lower knife (D) should be set with the cutting edge flush with the throat plate surface. Adjustments are made with hexagonal head screw which holds lower knife. Lower knife is spring pressed against upper knife. So no lateral adjustment is necessary when width of trim is changed

Lower knife may be secured in any position by tightening screw (E) against knife holder shaft.

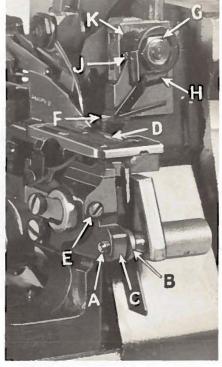


Fig. 11

SETTING THE LOWER KNIFE (Continued)

Set the desired width of trim by measuring from the right edge of the lower knife to the needle, lock the lower knife holder shaft with screw (E).

SETTING THE UPPER KNIFE

Replace upper knife assembly. Clamp upper knife (F, Fig. 11) in position, setting nut (G) to hold clamp (H) in its most clockwise position against upper knife. At bottom of its stroke, front cutting edge of upper knife should extend not less than 1/64 inch below cutting edge of lower knife. The chain guard should be set down against the upper knife and slightly back from the cutting edge.

After upper knife has been set for proper width of trim, screw (J) should be tightened to lock upper knife holding block (K) in place. This will simplify resetting when upper knife is replaced.

SETTING THE STITCH LENGTH

Length of stitch is determined by the combination of feed eccentrics used. Outer (left) eccentric (A, Fig. 12) actuates main (rear) feed dog, while the inner (right) eccentric (B) actuates the differential (front) feed dog.

In assembling feed eccentrics, be sure hubs are facing each other. Be careful not to damage shaft or key. Tighten nut (C) securely.

To change feed eccentrics, remove nut (C) and washer (D) from end of shaft (E). Turn handwheel in operating direction until key slot in eccentric is toward the front.

Using hooked eccentric extractor (F), supplied with machine, reach behind eccentrics as shown and withdraw eccentrics. It may be necessary to move handwheel back and forth slightly during extraction.

If eccentrics are unusually tight fitting, in addition to removing nut (C, Fig. 13) and washer (D) from shaft (E), it may be helpful to remove nut (G) and feed driving connection (H). Then continue as originally suggested.

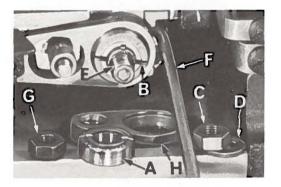


Fig. 13

SETTING THE PRESSER FOOT

Assemble the presser foot to presser arm. With needle in high position, swing presser arm into sewing position and set the presser foot to align needle holes (front and back) and flat on throat plate. The front edge of needle hole in presser foot must be aligned with front edge of needle hole in throat plate. It is also important that the bottom of the presser foot be flat on the throat plate. If necessary, presser foot can be realigned with throat plate slots by shifting the foot lifter lever shaft (H, Fig. 14). To move the shaft, loosen collar screws (B, Fig. 14) and

clamp screw (G) and then shift the foot lifter lever shaft to the left or right as required. Retighten collar screws and clamp screw.

The foot lifter lever arm (A, Fig. 14) and the collar (B) secure the shaft. Be sure the presser arm does not bind and rise when presser foot release bushing is unlocked.

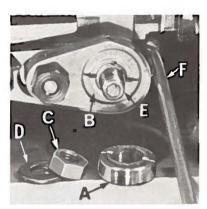
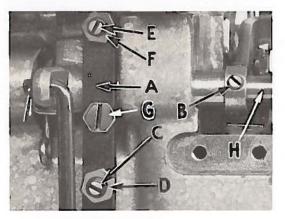


Fig. 12



SETTING THE PRESSER FOOT (Continued)

Adjust lifter lever stop screw (C) so that presser foot can be raised no higher than the upper looper or spreader will permit; then lock the nut (D). There should be from 1/16 to 1/8 inch free motion of foot lifter lever before the presser foot begins to rise. This adjustment should be made with screw (E) and locked with nut (F). Re-assemble the chip guard, fabric guard and cloth plate. To assemble chip guard, turn handwheel until upper knife assembly reaches its highest position.

Fig. 14

STARTING TO OPERATE

NOTE: Be sure machine is threaded according to threading diagram Fig. 1 or 1A. With thread tensions light, set lower looper thread eyelet (R) about horizontal and in the middle of its front to back location.

Operate machine slowly with presser foot in place; make sure chain forms and moves off tongue freely.

NEEDLE THREAD CONTROL (505 STITCH)

While sewing on material, check needle thread control as follows: About 60% of needle thread required for the stitch should be drawn on needle downstroke. To increase thread drawn on the downstroke, position needle thread eyelet (AD, Fig. 1A) farther to the rear.

LOWER LOOPER THREAD CONTROL (505 STITCH)

Set lower looper thread eyelet (R, Fig. 1A) about horizontal and all the way for - ward in its slot.

Frame looper thread guide (T) should be set with its eyelet approximately 1/8 inch right of lower looper (V) heel eyelet, when lower looper is at the left end of its stroke.

UPPER LOOPER THREAD CONTROL (505 STITCH)

With material under presser foot, set upper looper thread eyelet (N, Fig. 1A) to rest on top of lower looper thread eyelet (R), and back far enough so upper looper thread is a little slack when upper looper reaches the left end of its stroke.

POSITIONING THE SQUARE EDGE (505 STITCH)

Position of lower looper thread at the edge is located by balancing needle and upper looper thread tensions.

To reduce amount of lower thread in the stitch, or close the edge more, increase lower looper thread tension.

NEEDLE THREAD CONTROL (503 STITCH)

While sewing on material, check needle thread control as follows: Usually all needle thread is drawn on needle down stroke. At top of needle stroke, thread should be just tight enough to feed chain off stitch tongue. Stitch tends to pull down slightly if excessive thread is pulled on the up stroke. With needle at bottom of stroke, position needle thread eyelet (AD, Fig. 1) so that needle thread cam pull-off (AE) just contacts needle thread. To increase thread drawn on downstroke, position needle thread eyelet (AD, Fig. 1) farther to the rear.

LOWER LOOPER THREAD CONTROL

With material under presser foot, set lower looper thread eyelet (R, Fig. 1) back and down far enough so thread is a little slack when spreader reaches its extreme left position. Lower looper thread eyelet (R) should be about horizontal.

Frame looper thread guide (T) should be set with its eyelet approximately 1/8 inch to the right of heel eyelet of looper (V) at the time lower looper is at extreme left end of its travel.

THREAD TENSIONS

Before proceeding, balance both tensions to give a normal appearing stitch. Moderate change in these tensions will not markedly effect the purl.

SPECIAL ADJUSTMENTS

SKIPPING: For occasional skipping, check and/or adjust as outlined below:

- 1. Recheck lower looper needle setting. See "Setting the Needle".
- 2. Recheck upper looper or spreader lower looper crossing. See "Setting the Upper Looper or Spreader".
- 3. Check clearance between needle and upper looper or spreader. See that upper looper or spreader moves far enough left past needle.

Setting 1 and 2 should be made quite carefully. If it can be determined by appearance that skip is definitely not a needle loop skip, reposition lower looper thread eyelet (R, Fig. 1) by lowering it slightly and bringing eyelet holes in close to bend in looper thread pull-off (AF). After this change, increase looper thread tension as much as possible without distorting stitch.

CAUTION: Looper thread must, as before, be slightly slack as spreader reaches its extreme left position, or stitch will appear tight on top side.

SETTING THE HEMMING GUIDE SUPPORT BRACKET

Make sure that lock screw (A, Fig. 15) is loose, then proceed as follows:

Assemble the hemming guide support bracket onto the lower knife support bracket by means of screw (B, Fig. 15). With the knurled adjusting screw (C), set the edge guide (D) so that the left side of its tip is even with and parallel to the right side of the right feed slot in the throat plate.

When the edge guide tip is in this position, the front or leading edge should be slightly to the right of parallel. This adjustment can be made by positioning the stop screw (A, Fig. 16) located towards the front of the hinge block and edge guide support bracket (E, Fig. 15).

Under normal conditions, the edge guide is spring loaded to compensate for the differences in the material thickness. For example, as in going over seams. The amount of movement and the pressure applied to the edge guide tip can be set by removing lock screw (B, Fig. 16) and adjusting the screw which presses against the spring and pin, located in the hinge block and edge guide support bracket (E, Fig. 15). Replace lock screw and tighten securely.

SETTING THE HEMMING GUIDE SUPPORT BRACKET (Continued)



Fig. 15

If movement of the edge guide is not required, then remove lock screw (B, Fig. 16), set screw and spring; then replace set screw and lock screw. Be sure set screw is tightened against pin and lock screw is tightened against set screw.

FINAL ADJUSTMENT OF HEMMING GUIDE

Adjust the edge guide (D, Fig. 15) by turning the knurled adjusting screw (C) so that the stitches are located in the folded edge, yet do not show on the face of the fabric. At this point re-tighten screw (A, Fig. 15) securely.

Adjust the overhanging guide (F, Fig. 15) so that the space between its guiding edge and the edge guide (D) corresponds with

the thickness of the material to be hemmed. Loosen set screw (C, Fig. 16) and holding screw (D), now move the hinge block (E) to obtain the proper distance between the edge guide and the overhanging guide. Retighten screws (C) and (D). Remove lock screw (F) and adjust stop screw that is in front of lock screw, so that the tip of the overhanging guide is located at the center of the edge guide vertically. Replace lock screw (F) and tighten against stop screw.

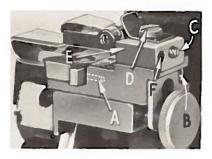
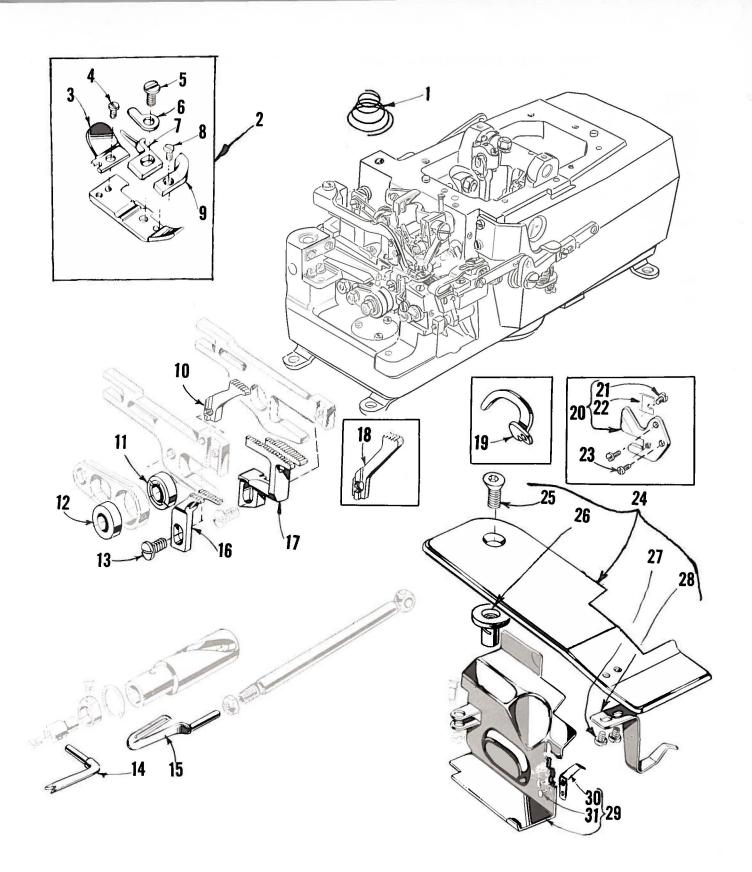


Fig. 16



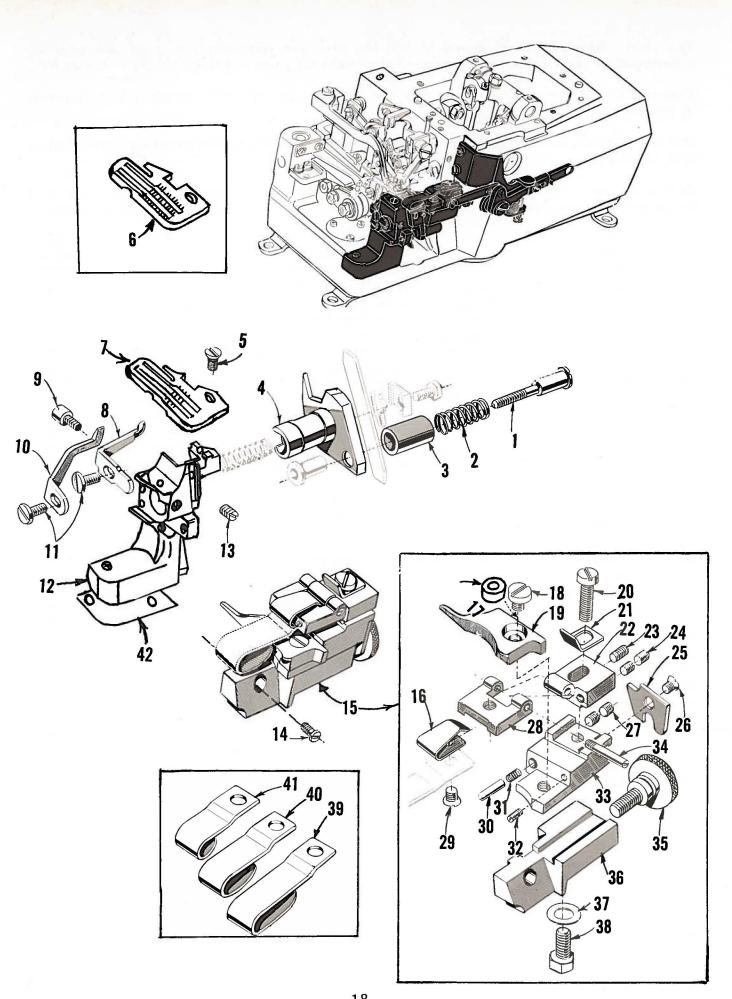
The parts illustrated on pages 16 and 18, and described on this page and page 19 represent the parts that are used on Style 39500 MC, but not used on Style 39500 FA.

Those parts shown in phantom views and bearing no reference number are common to Styles 39500 FA and MC.

Use Catalog No. 103 FA (Style 39500 FA) for all parts not illustrated or described in this catalog.

Reference numbers that are inside a bracket on the picture plates and have indented descriptions, indicate they are component parts of a complete part or assembly.

Ref. No.	Part No.		Amt . Req .
1	39592 AE-4 39592 AE-4 39592 AE-4	Looper Thread Tension Spring, for 503 stitch Looper Thread Tension Spring, for 505 stitch Needle Thread Tension Spring	1 2 1
2	39520 AX	Presser Foot	1
3	39530 E	Presser Foot Chain Shield	1
4	22738	Screw, for chain shield	1
5	22768 B	Screw, for stitch tongue	1
6	39530	Hinge Spring Stitch Tongue, marked "DV"	1
7	39597 F	Stitch Tongue, marked "DV"	1
8	22738	Screw, for chip guard	1
9	39530 B	Chip Guard	1
10	39505 G	Chaining Feed Dog, marked "S", for 503 stitch	1
11	39540 B-8	Differential Feed Driving Eccentric	1
12	39540 B-14	Main Feed Driving Eccentric	1
13	93 A	Screw, for main feed dog	1
14	39560 A	Upper Spreader, marked "E", for 503 stitch	1
15	39508 B	Lower Looper	1
16	39505 F	Main Feed Dog, marked "F"	1
17	39526 AY	Differential Feed Dog, for 503 stitch	1
	39526 AX	Differential Feed Dog, for 505 stitch	1
18	39505 H	Chaining Feed Dog, marked "U", for 505 stitch	1
19	39563 J	Needle Thread Cam Pull-off	1
20	39556 M	Chain Cutting Knife	1
21	22798	Screw, for chain cutter blade	1
22	39556 L	Chain Cutter Blade	1
23	605	Screw, for chain cutting knife	2
24	39501 AS	Cloth Plate	1
25	22657 D-12	Screw, for cloth plate	1
26	39501 K	Cloth Plate Stud	1
27	22513	Screw, for latch spring Latch Spring	2
28	39532 D	Latch Spring	1
29	39582 AR	Side Cover	1
30	39582 H	Spring	1
31	39582 J	Rivet	2



THROAT PLATES, NEEDLE GUARDS, THROAT PLATE SUPPORT BLOCK, LOWER KNIFE PARTS AND HEMMING GUIDE ASSEMBLY

Ref. No.	Part No.	Description	Amt. Req.
1	22559 H	Adjusting Screw	1
2	39550 J	Knife Pressure Equalizing Spring	1
3	39550 K	Spring Cover	1
4	39550 V	Knife Pressure Equalizing Spring Spring Cover Lower Knife Holder	1
5	AS22 D	Screw, for throat plate	1
6	39524 AX	Throat Plate, marked "CD", for 505 stitch	1
7	39524 AY	Throat Plate, marked "CD", for 505 stitch Throat Plate, marked "CE", for 503 stitch	1
8	39525 E	Needle Guard rear	1
9	22585 G	Screw for locking side cover	1
10	39525 D	Needle Guard front	1
11	90	Screw, for needle guard	2
12	39580 AG	Throat Plate Support Block	1
13	88 B	Screw, for lower knife holder	1
14	22593	Screw, for hemming guide assembly	1
15	29481 L	Hemming Guide Assembly	1
16	39589 AH	Holding Spring	1
17	39589 AG	Sleeve for edge guide	1
18	22513 C	Screw, for edge guide Edge Guide	1
19	39503 L	Edge Guide	1
20	22729 A	Screw, for hemming guide stop	1
21	39589 AJ	Screw, for hemming guide stop Hemming Guide Stop Hinge Block	1
22	39589 AB	Hinge Block	1
23	73 C	Set Screw, for No. 22729 A	1
24	HA73 B	Stop Screw, for overhanging guide hinge block	2
25	39589 AF	Hemmer Guide End Plate	1
26	222 D	Screw, for hemmer guide end plate	1
27	22743	Screw, for edge guide tension spring	2
28	39589 AA	Overhanging Guide Hinge Block	1
29	222 D	Screw, for overhanging guide	1
30	39589 AL	Pin, for edge guide tension spring	1
31	39568 J	Spring, for edge guide tension	1
32	79077	Stop Screw, for edge guide Edge Guide Support	· 1
33	39589 AD	Eage Guide Support	1
34	22799 B	Hinge Screw, for overhanging guide hinge block	k - 1
35	22873 C	Adjusting Screw, for edge guide support Hemming Attachment Base	1
36	39589 AC	Hemming Attachment Base	1
37 38	61303 D	Cup Washer, for screw No. 303	1
	303 20590 AV-1	Screw, for edge guide support	1
39 40	39589 AK-1	Overhanging Guide, for 1 inch hem	1
40 41	39589 AK-3/4 39589 AK-1/2	Overhanging Guide, for 3/4 inch hem	1
41 42		Overhanging Guide, for 1/2 inch hem	1
44	39580 E	Throat Plate Support Block Shim	

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