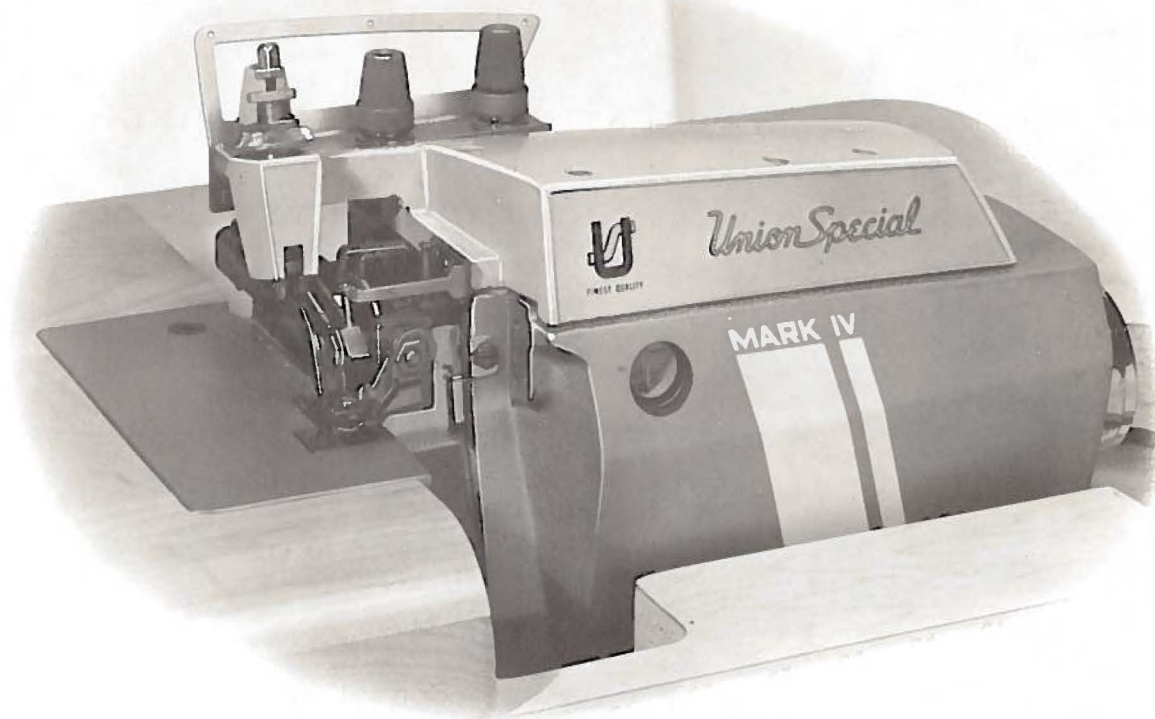




Union Special[®]
LEWIS[®] • COLUMBIA[®]

INDUSTRIAL
SEWING
MACHINES

STYLE
39500QD



CLASS 39500

MARK IV

HIGH SPEED OVERSEAMER

WITH

STITCH SHORTENING MECHANISM

CATALOG
No.
103QD

UNION SPECIAL CORPORATION

CHICAGO

From the library of: Superior Sewing Machine & Supply LLC

Catalog No. 103 QD
(Supplement to Catalog No. 103 QA)

INSTRUCTIONS
FOR
ADJUSTING AND OPERATING

LIST OF PARTS

CLASS 39500

Style
39500 QD

First Edition

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UNION SPECIAL CORPORATION

INDUSTRIAL SEWING MACHINES

CHICAGO

Printed in U. S. A.

October, 1975

IDENTIFICATION OF MACHINE

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 QD". 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 QDZ".

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 QA and should be used in conjunction therewith. Only parts found on Style 39500 QD, but not on Style 39500 QB are illustrated. 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

MARK IV Hi-Styled High Speed, Single Curved Blade Needle, Two Looper, Three Thread, Overseaming Machine, Differential Feed, Trimming Mechanism with Spring Pressed Lower Knife, Automatic Lubricating System, Improved Air Cooling System.

39500 QD Light to medium duty machine for seaming of "T" shirts, polo shirts, panties, slips, etc., with knee controlled stitch shortening mechanism to minimize the possibility of ravelling. Seam Specification, 504-SSa-1; standard seam width 1/8 inch (3.17 mm); stitch range 8-30 per inch; cam adjusted main and differential feed. Maximum recommended speed 8000 R. P. M. depending on stitch length and operation.

SPEED RECOMMENDATION

39500 MARK IV machines have been tested in their complete stitch range at their maximum rated speeds. Varied field conditions, severity and cleanliness of the sewing operation may necessitate operating at a lower speed. When operating from 50-100% machine running cycle and a longer than recommended stitch length, it may be necessary to reduce the machine's speed by 10-15%.

The MARK IV is a precision manufactured and tested sewing machine. To obtain maximum performance, the machine should be operated at 1000 R. P. M. below maximum recommended speed for the first 20 days of field operation. This will minimize readjustment of precision mechanisms.

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 90 to 125 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.

To maintain maximum recommended speed and serviceability of this equipment when operating continuously, the oil must be changed at least every six months. In no case should oil remain in machine for more than one year.

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 a 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.

Style 39500 QD uses a curved blade needle. The standard needle for this style is Type 154 GAS. It has a round shank, round point, curved blade, standard length, single groove, struck groove, spotted, chromium plated and is available in sizes 055/022, 065/025, 070/027, 075/029, 080/032, 090/036, 040, 044, 049, 054, 060.

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 070/027".

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) 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; re-lock presser foot release bushing (AG).

THREAD STAND

After thread comes from cones on cone support (A, Fig. 1), they are brought up through the back hole of thread eyelet (B), then down through the front hole of thread eyelet. The needle and upper looper threads are then 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 back to front, through the middle hole from front to back, and finally through the lower hole from back to front. All three threads then continue between the tension discs (J), through tension post slot (K) in tension post (G) and on through front thread guide (M).

THREADING

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

It will simplify the threading of this machine to follow the recommended sequence of threading the lower looper first, upper looper second, and the needle third.

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

Be sure threads, as they come from the tension thread guide (C), are between tension discs (J) and in diagonal slots (K) in tension posts (G).

TO THREAD THE LOWER LOOPER

Double end of thread and lead it through the right eyelet of front thread guide (M, Fig. 1). Then lead thread through both eyes of lower looper thread eyelet (R) 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

Thread upper looper thread through left eyelet of front thread guide (M). Then turn handwheel until point of upper looper (W) is all the way 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, then insert thread through upper looper eye from front to back.

TO THREAD THE NEEDLE

Thread needle thread through middle eyelet of front thread guide (M). Then turn handwheel in operating direction until needle (X, Fig. 1) 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 knurled tension nuts (D, Fig. 1). Tension on threads should be only enough to secure proper stitch formation.

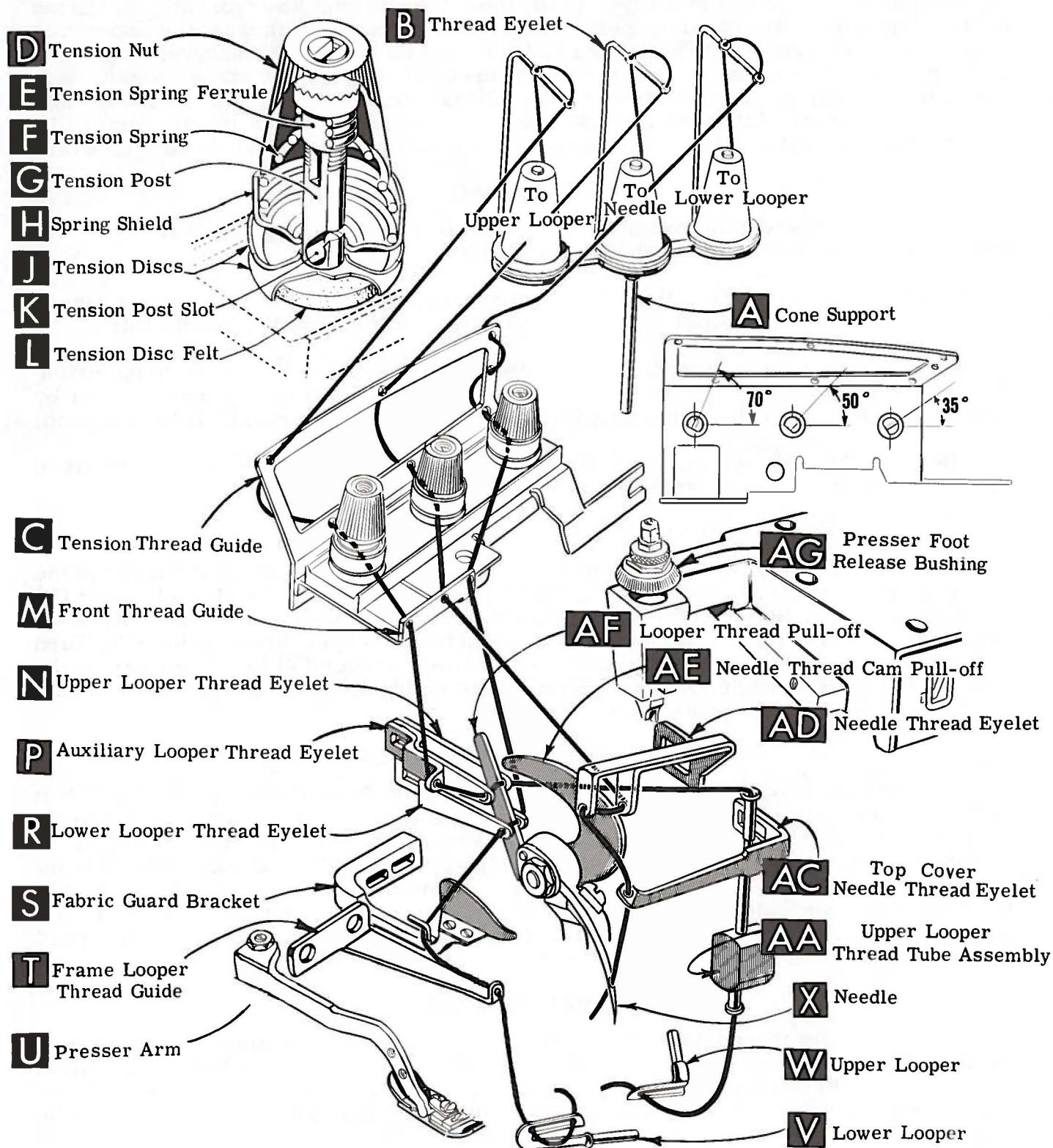


Fig. 1

PRESSER FOOT PRESSURE

Sufficient presser foot pressure to feed work uniformly should be maintained. Should it be necessary to increase or decrease 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 (.79 to 1.59 mm) from the top surface of adjusting screw (B). Set cap (D) against locking nut (C).

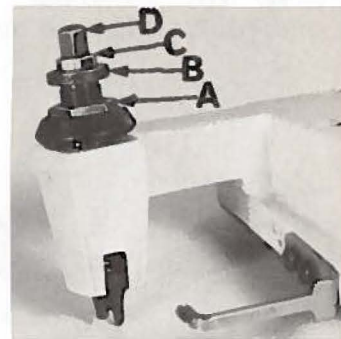


Fig. 2

FEED ECCENTRICS

Feed eccentrics used in Style 39500 QD machines have been selected to produce approximately 12 stitches per inch. It will be noted that the part number of main feed eccentric is No. 39540 B-12 while that of differential feed eccentric is No. 39540 B-10. Minor numbers of the part symbol indicate approximately the number of stitches obtainable when using that eccentric. Unless otherwise specified, machine Style 39500 QD 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, 50, 60, 70, 100. 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-12".

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, then follow this suggested sequence.

CLOTH PLATE REMOVAL AND ASSEMBLY

CAUTION: When removing the cloth plate (A, Fig. 3) loosen the cloth plate stud locking screw (B) and lift up cloth plate with the cloth plate stud (C) and cloth plate screw (D), assembled.

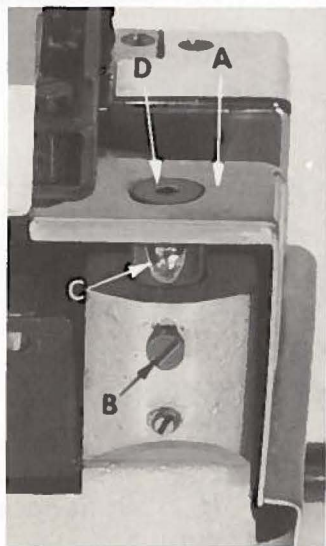


Fig. 3

In assembly, the cloth plate screw and the cloth plate stud are tightened to the point of removing all play and yet turn in cloth plate. The cloth plate is then assembled to the machine with the flat and "V" slot of the cloth plate stud (C) towards the rear. Stud locking screw (B) is tightened securely which collapses the body of the stud to the screw (D) so that only the cloth plate will turn when opening or closing.

SETTING THE NEEDLE

With throat plate attached to the throat plate support (39580 C) and resting on the throat plate support bracket (39580 AB), needle should center in the front end of needle slot. When needle is at high position, needle point should be set $1/2$ inch (12.70 mm) above throat plate (A, Fig. 4). To align needle or set the height above the throat plate, move needle driving arm (B), by loosening clamp screw (C). After needle has been set properly, tighten screw (C) and remove throat plate.

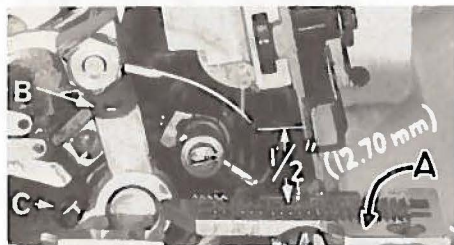


Fig. 4

If needle thread cam pull-off (A, Fig. 5) overlaps looper thread pull-off (B), separate by moving looper thread pull-off back. When retightening looper pull-off screw, be sure to take up end play in needle driving arm.

Insert lower looper (A, Fig. 6) into bar (B). With lower looper at left end of its stroke, set looper point $1/8$ inch (3.17 mm) from center of needle (Fig. 6), using looper gauge No. 21225- $1/8$. 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. 7) 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 (.051-.102 mm). Screw (B) is used to set rear needle guard. Make sure there is no interference between rear needle guard and lower looper.

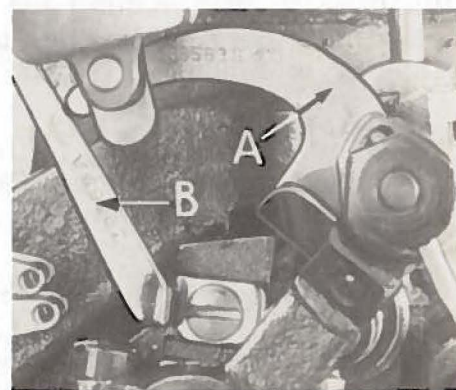


Fig. 5

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. 8) until the needle springs forward from rear needle guard surface another .002-.004 inch (.051-.102 mm).

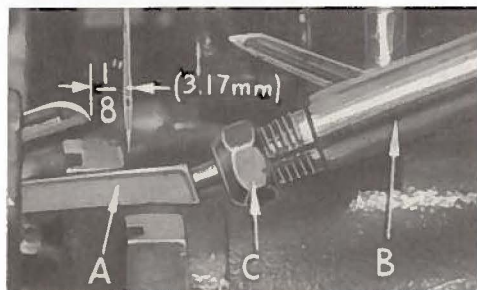


Fig. 6

SETTING THE FRONT NEEDLE GUARD

Assemble front needle guard (C, Fig. 7). When lower looper is springing needle off rear needle 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 guards and differential feed dog.

SETTING THE UPPER LOOPER

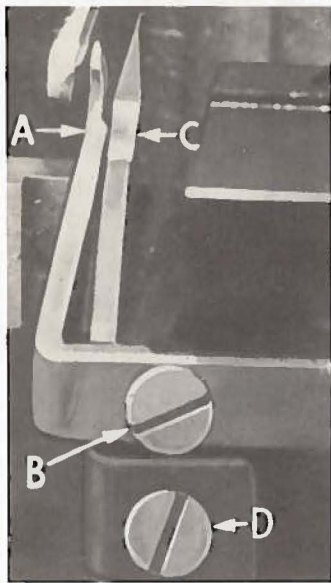


Fig. 7

Insert upper looper (A, Fig. 9) in its holder. Screw (B) holds upper looper in its holder, and permits it to be pushed in or out, or turned around its shank. Insert upper looper holder into upper looper shaft, if it is not already in place. Screw (C) in clamp, holds the upper looper holder in the shaft. Locate upper looper in its holder so that the shank extends $1/32$ to $1/16$ inch (.79 to 1.59 mm) beyond holder (Fig. 9).

When the upper looper is at the right end of its stroke, upper looper holder should be set to position upper looper shank slightly back of vertical (Fig. 9).

Be sure there is a clearance between heel of looper and casting. By adjusting looper holder in or out of upper looper shaft and by turning the looper around its shank, set upper looper point to cross lower looper to the left of the lower looper eye with .002 to .004 (.051 to .102 mm) clearance (Fig. 10).

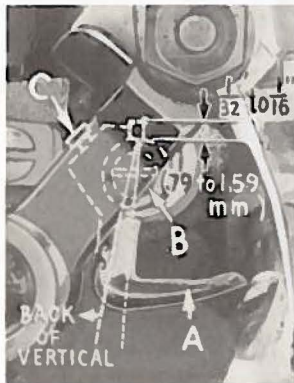


Fig. 9

As the upper looper moves toward the top of its stroke, the heel of the upper looper should pass behind the lower looper head with $1/64$ to $1/32$ inch (.40 to .79 mm) clearance.

Next, turn handwheel until looper is at the left end of its travel; check dimensions of upper looper point with respect to needle and throat plate (Fig. 11). If resetting is necessary, do it by moving the upper looper holder (A, Fig. 11). Figure 11 represents the correct dimensional setting.



Fig. 10

For example, dimension $31/64$ inch (12.30 mm) is increased by turning upper looper holder counterclockwise looking from left end of machine; dimension $5/32$ inch (3.97 mm) is increased by pulling upper looper holder left, out of upper looper shaft. After these changes are made it may be necessary to turn upper looper around its shank slightly to maintain the condition shown in Fig. 10.

When the correct setting is obtained, it can be checked quickly as follows: As upper looper is moving to the right, when upper looper eye centers on the needle, bottom of the needle eye should be about level with top surface of upper looper (Fig. 12).

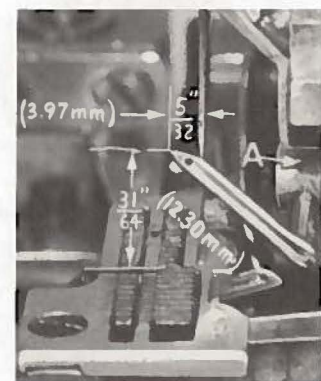


Fig. 11

Check setting to avoid interference between upper looper and needle on needle downstroke. If needle rubs the back of upper looper, pull looper out of its holder slightly and rotate looper a short distance counterclockwise, looking from left end of machine. Reset to maintain dimensions of Figs. 10, 11, 12.

SETTING THE FEED DOGS

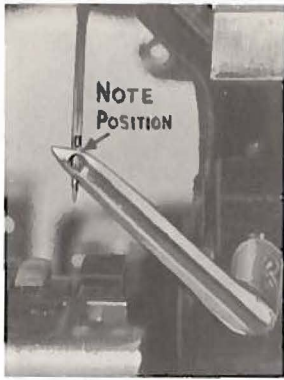


Fig. 12

Now assemble differential (front) feed dog (A, Fig. 13), if not already in place, main (back) feed dog (B) and chaining feed dog (C). Set the differential and main feed dogs (A and B, Fig. 13) so the top surfaces of teeth lay in the same plane. This can be checked by sighting across teeth with a straight edge. Now assemble throat plate. Feed dogs should now be leveled with throat plate surface by rotating feed tilting adjusting pin (D). This pin raises or lowers the back end of both feed bars at the same time.

The main and differential feed dogs should be set level at the time teeth first appear above the throat plate. Screw (E, Fig. 13) locks feed tilting adjusting pin in place. Now set main and differential feed dogs so that teeth are approximately $\frac{3}{64}$ inch (1.19 mm) above throat plate at high point of travel. Set chaining feed dog (C) so its teeth are level with top of throat plate when feed is at top of its travel.

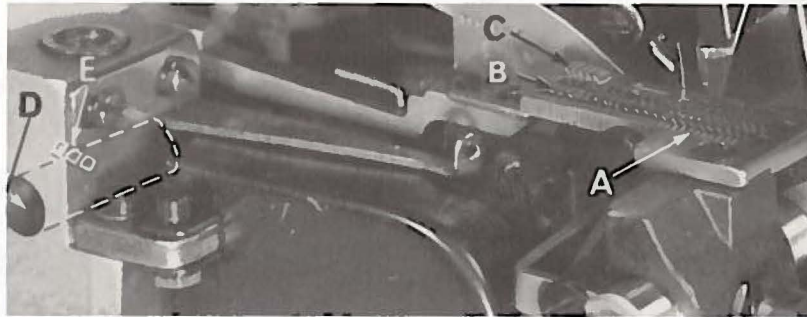


Fig. 13

SETTING THE LOWER KNIFE

Replace lower knife holder assembly. Lower knife (A, Fig. 14) should be set with cutting edge flush with 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.



Fig. 14

Lower knife may be secured in any position by tightening screw (B) and locking nut (C) against support bracket. Because screw (B) also serves as latch pin for the cloth plate latch spring, it should always be locked with nut (C) even when screw is not tightened against lower knife holder.

SETTING THE UPPER KNIFE

Replace upper knife assembly. Clamp upper knife (D, Fig. 14) in position, setting nut (E) to hold clamp (F) in its most clockwise position against upper knife. At bottom of its stroke, front cutting edge of upper knife should extend not less than $\frac{1}{64}$ inch (.40 mm) below cutting edge of lower knife. The chain guard (G) should be set down against the upper knife and slightly

back from the cutting edge.

SETTING THE UPPER KNIFE (Continued)

After upper knife has been set for proper width of trim, screw (H) should be tightened to lock upper knife holding block (J) 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. 15) 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 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.

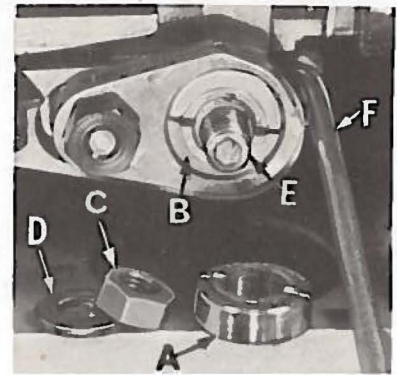


Fig. 15

If eccentrics are unusually tight fitting, in addition to removing nut (C) and washer (D, Fig. 16) from shaft (E), it may be helpful to remove nut (G) and feed driving connection (H). Then continue as originally suggested.

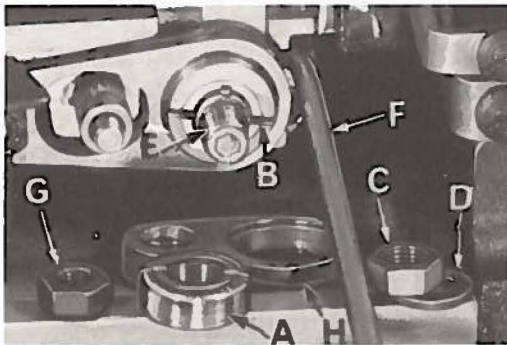


Fig. 16

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. 17). To move the shaft, loosen collar screws (B, Fig. 17) 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. 17) and the collar (B) secure the shaft. Be sure the presser arm does not bind and rise when presser foot release bushing is unlocked.

Adjust lifter lever stop screw (C) so that presser foot can be raised no higher than upper looper will permit; then lock the nut (D). There should be from 1/16 to 1/8 inch (1.59 to 3.17 mm) 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.

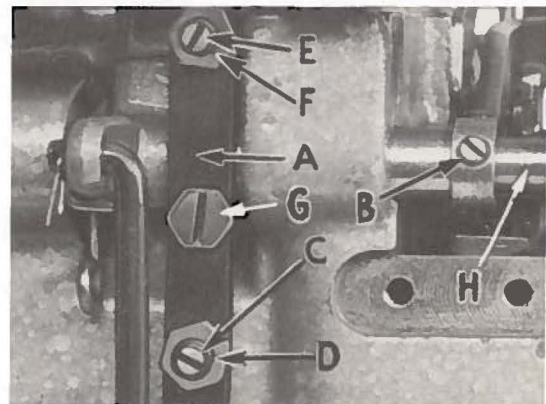


Fig. 17

STARTING TO OPERATE

Be sure machine is threaded according to threading diagram Fig. 1. With thread tensions light, set looper thread eyelets (N and R, Fig. 1) approximately horizontal and in the middle of their front to back locations. Operate machine slowly, without presser foot in place, to make sure chain forms and moves off stitch tongue freely. Swing presser foot into position, insert material and sew slowly.

NEEDLE THREAD CONTROL

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.

It is desirable to adjust the needle thread eyelet well-forward (toward the operator) to delay slightly, the tightening of the needle thread.

LOWER LOOPER THREAD CONTROL

With material under presser foot, set lower looper thread eyelet (R, Fig. 1) back far enough so thread is a little slack when looper thread pull-off (AF) reaches its most rearward position. Looper thread pull-off (AF) is set about $1/32$ inch (.79 mm) distance behind needle thread cam pull-off (AE). Frame looper thread guide (T) should be set with its eyelet approximately $1/8$ inch (3.17 mm) to the right of lower looper (V) heel eyelet at the time lower looper is at extreme left end of its travel.

While sewing on material, check drawing off of looper thread as follows: A portion of lower looper thread should be drawn through the tension before lower looper thread comes off upper looper. To increase amount of thread drawn through the tension while lower looper thread is on upper looper, move lower looper thread eyelet (R) down, keeping the same amount of pull-off action.

UPPER LOOPER THREAD CONTROL

Before proceeding to adjust upper looper thread eyelet (N, Fig. 1) balance all three tensions to give a normal appearing stitch. Moderate change in these tensions will not markedly affect the purl.

During needle down stroke, forward stroke of looper thread pull-off (AF) will draw upper looper thread through the tension. When normal amount of looper thread is drawn, upper looper thread will have almost all slack taken up as looper thread pull-off reaches its most rearward position.

POSITIONING THE PURL

To move the purl more under the edge, both looper thread eyelets (N and R, Fig. 1) should be raised keeping the same amount of pull-off. Usually it is better to have slightly more pull-off on upper thread than on lower thread.

If it becomes necessary to move looper thread pull-off (AF), be sure to take up all end play in needle drive shaft before tightening. If upper looper is located so that it is higher over throat plate than recommended in Fig. 11, the purl will tend to form near top edge. If upper looper is too low, the purl will form nearer bottom edge.

THREAD TENSIONS

The needle thread tension required is a function of needle thread and material being sewn. In general, lower looper thread tension should be set as high as possible without causing needle thread to be pulled down. Upper looper thread tension should be increased as long as the elasticity of the chain increases, or until the purl is pulled too far over the top.

SETTING THE LIFTER LEVER STOP

Simulated tacking is obtained by increasing the number of stitches per inch sewn at the start or finish of a garment. The number of stitches per inch is increased by raising the throat plate which in effect reduces the effective feed dog travel.

While sewing on material, adjust the lifter lever stop (A, Fig. 18) so that when the knee press is engaged, the lifter lever (B) raises the throat plate to a height required to obtain the desired increase in the number of stitches per inch sewn. Screw (C) is used to secure the lifter lever stop.

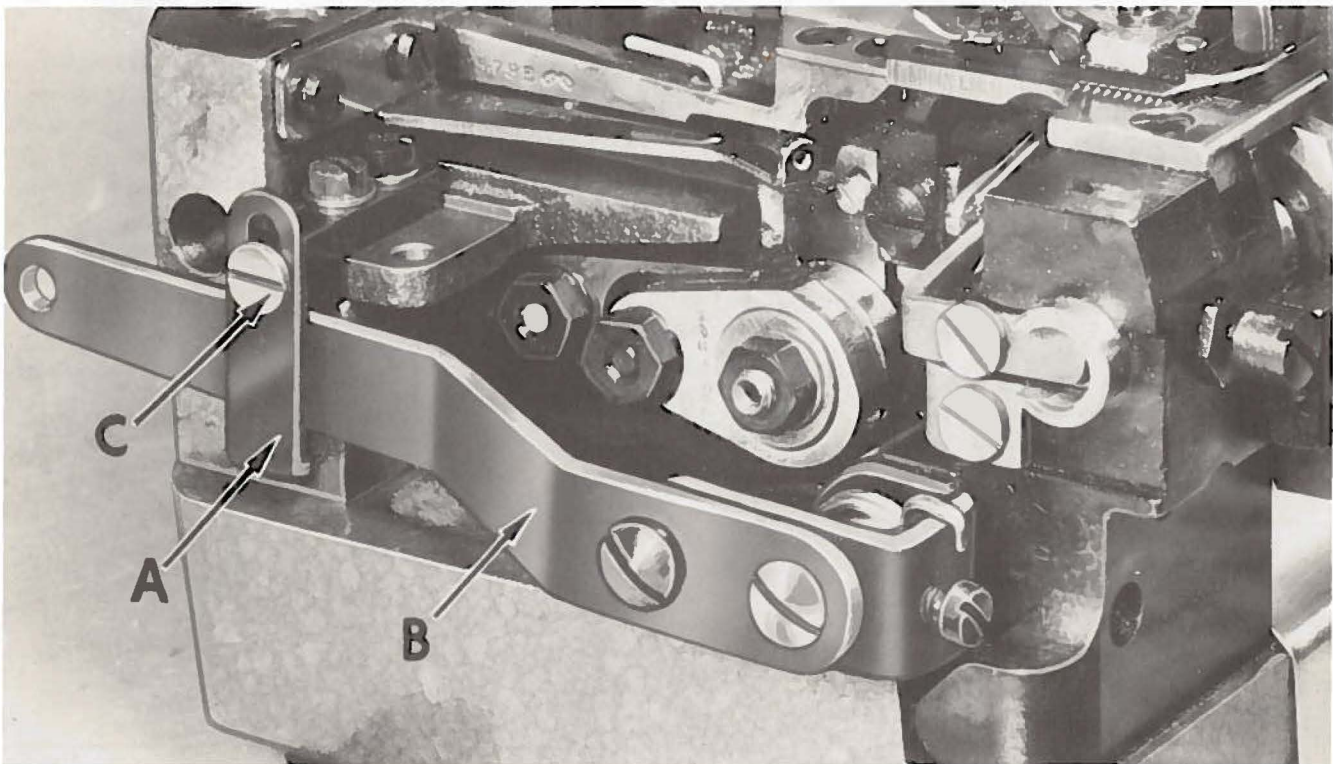


Fig. 18

NOTE: The stitch shortening mechanism can be purchased complete under No. 29480 CC and can be applied to all Styles in Class 39500 except hemming machines and those equipped with intermittent differential feed.

The parts illustrated on the preceding page and described below represent parts used on Style 39500 QD, but are not used on Style 39500 QB.

Parts shown in phantom view and bearing no reference numbers are common to Styles 39500 QD and 39500 QB.

Use Catalog 103 QA for all parts and instructions applicable to 39500 QB not illustrated or described here.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	29480 CC	Stitch Shortening Mechanism, complete -----	1
2	39581	Throat Plate Lifter Lever -----	1
3	22585 C	Screw, for lifter lever stop -----	1
4	39581 F	Lifter Lever Stop -----	1
5	39581 G	Lifter Lever Stop Block -----	1
*6	53634 C	Feed Bar Guide Washer -----	2
7	22541	Screw, for lifter lever stop block -----	2
8	22526	Screw, for throat plate lifter lever -----	1
9	39581 A	Lifter Lever Clamp -----	1
10	39581 B	Lifter Lever Clamp Spring -----	1
11	39581 C	Lifter Lever Shaft -----	1
12	89	Screw, for lifter lever shaft -----	1
13	39581 E	Lifter Lever Bearing Block -----	1
14	22596 D	Screw, for lifter lever clamp -----	1
15	39581 D	Lifter Lever Shaft Stud -----	1
16	39580 C	Throat Plate Support -----	1
17	22524	Screw, for throat plate retaining plate -----	1
18	39580 D	Throat Plate Retaining Plate -----	1
19	39580 AB	Throat Plate Support Bracket -----	1
20	22516 A	Screw, for lifter lever bearing block -----	2
21	39582 DB	Feed Mechanism Cover -----	1

KNEE PRESS PARTS

421 D-10	Control Chain, 10 inches long -----	1
660-168	Knee Press Plate Pad, rubber -----	1
660-264	"S" Hook, for control chain -----	2
9271	Collar, for knee press shaft bracket -----	2
98	Screw, for collar -----	1
21661	Knee Press Bracket Shaft -----	1
21662	Knee Press Bracket -----	1
21663	Knee Press Lever -----	1
21663 A	Knee Press Plate Rod -----	1
21664	Knee Press Plate -----	1
21665	Knee Press Rod Connection -----	2
69 FD	Set Screw -----	2

NOTE: Knee press parts not shown on picture plate.

* Not a component part of No. 29480 CC.



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