

**FINEST QUALITY**

**STYLE  
39500MD**

**CATALOG  
No.  
103MD**

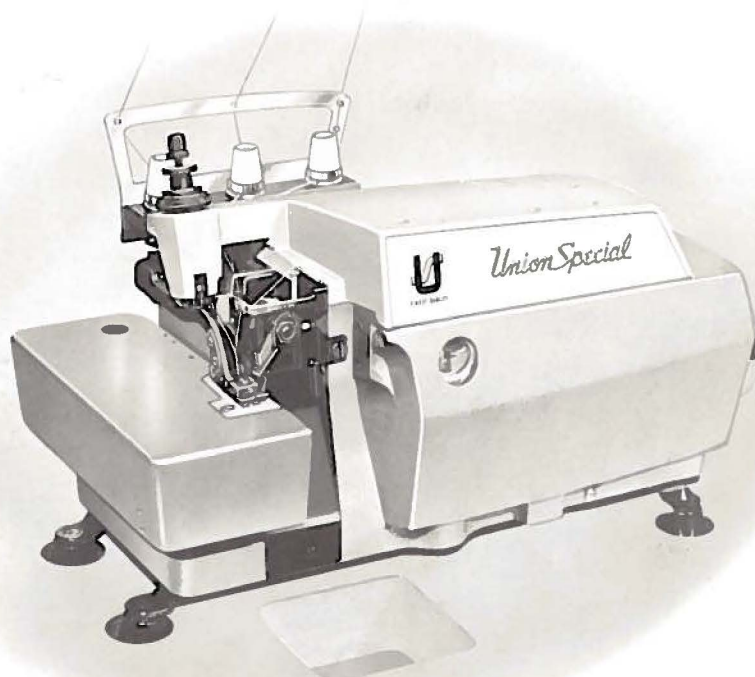
*Bob Williams*

*Dallas*

***Union Special***<sup>®</sup>

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**INDUSTRIAL  
SEWING  
MACHINES**



**CLASS 39500  
HI-STYLED HIGH SPEED  
SINGLE NEEDLE THREE THREAD  
DIFFERENTIAL FEED  
OVERSEAMING MACHINES**

***Union Special* MACHINE COMPANY**

**CHICAGO**

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

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

INSTRUCTIONS  
FOR  
ADJUSTING AND OPERATING  
LIST OF PARTS

CLASS 39500  
Style 39500 MD

First Edition

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**MACHINE COMPANY**  
INDUSTRIAL SEWING MACHINES  
**CHICAGO**

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## 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 MD". 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 MDZ".

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 MD, but not on Style 39500 FA are illustrated and listed at the back of this catalog. The illustration identifies the part by a reference number and at the top of the page, the part number and description identifies the part. 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, Two Looper, Three Thread, Over-seaming Machine. Differential Feed, Trimming Mechanism with Spring Pressed Lower Knife, Automatic Lubricating System.

39500 MD Light to medium duty machine with the main and differential feed dogs having a square separation located approximately at the needle, for seaming light and medium weight perma-press materials where long straight pucker free seams are a primary requisite. Seam specification 504-SSa-1; standard seam widths  $\frac{3}{32}$  and  $\frac{1}{8}$  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 tip of oil 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 MD is Type 154 GBS. Below is the description and sizes available of the recommended needle.

<u>Type No.</u>	<u>Description and Sizes</u>
154 GBS	Round shank, round point, curved blade, standard length, double groove, struck groove, spotted, chromium plated and is available in sizes 025, 027, 029, 032.

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 GBS, Size 029".

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

## THREAD STAND

After thread comes from cones on cone support (A, Fig. 1), it is brought up through back hole of thread eyelet (B), then down through the front hole of thread eyelet. Next it is threaded through the upper holes of tension thread guide (C) from front to back and then through the lower holes from back to front. It should be noted that the lower looper thread is threaded through the tension thread guide (C), first through the upper hole back to front, second through the middle hole front to back and third through the lower hole back to front. All 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

Refer to threading diagram (Fig. 1) on page 5 for the manner in which these machines are threaded.

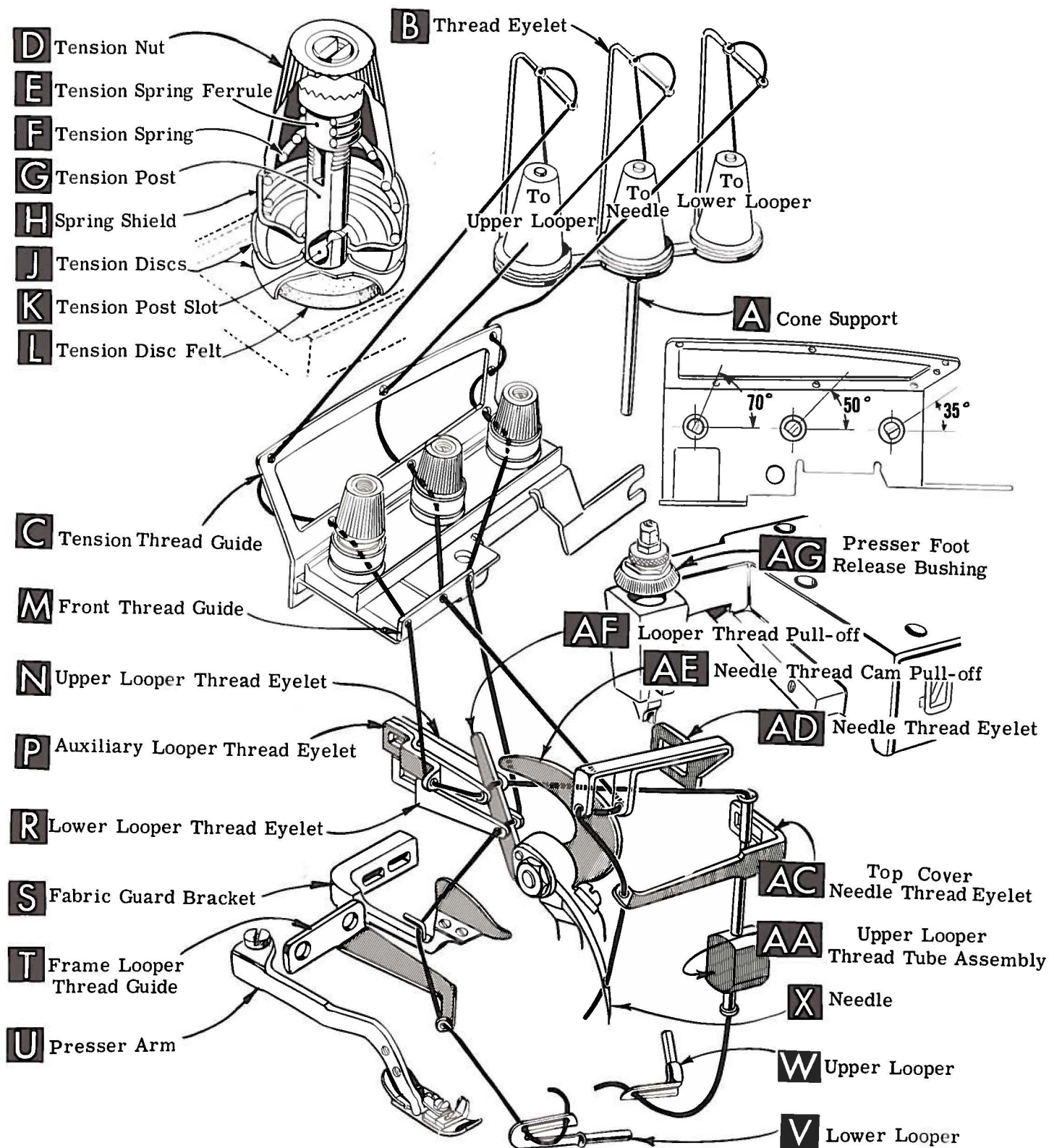


Fig. 1



## FEED ECCENTRICS

Feed eccentrics used in Style 39500 MD 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-10 while that of differential feed eccentric is No. 39540 B-12. 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-12".

## ASSEMBLING AND ADJUSTING SEWING PARTS

All instructions pertaining to the adjustment of Style 39500 MD are the same as those for Style 39500 FA covered by Catalog No. 103 FA with the following exception. The difference, applicable only to Style 39500 MD are underlined below and with the page number where it can be found in Catalog No. 103 FA.

### SETTING THE PRESSER FOOT HOLD DOWN PLATE

(This adjustment to follow "Setting The Presser Foot", Pages 13 and 14)

This machine comes equipped with a presser foot hold down plate (A, Fig. 16A). It is for the purpose of holding down the rear of the presser foot and when set correctly it will help produce a more flat pucker free seam. An approximate setting is shown in Fig. 16A. Set the machine with the feed dogs below the throat plate and insert a .005 inch shim (B) under the front portion of the presser foot (C). Loosen the screws (D) which hold the hold down plate in position and move the plate down until it rests firmly against the presser foot. Tighten the two screws and remove the shim.

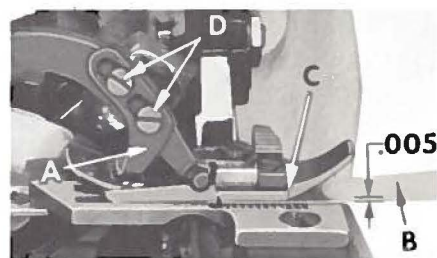
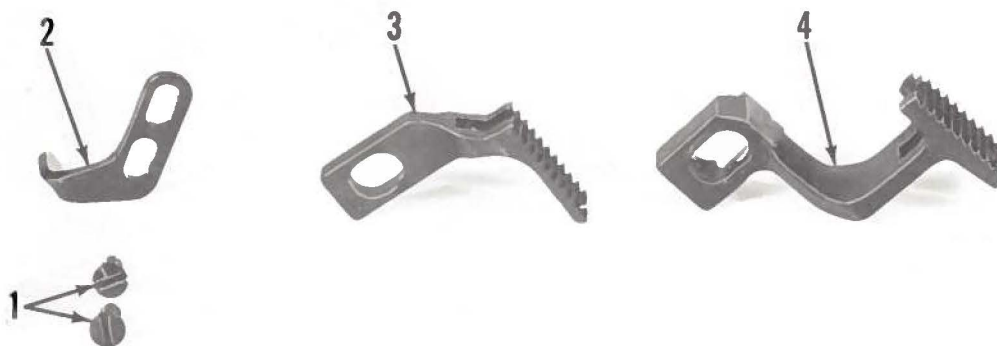


Fig. 16A

The parts illustrated and described below, represent the parts that are used on Style 39500 MD, but not used on Style 39500 FA.

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

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	605 A	Screw, for presser foot hold down plate -----	2
2	39556 H	Presser Foot Hold Down Plate -----	1
3	39505 BJ	Main Feed Dog, marked "EA"-----	1
4	39526 BJ	Differential Feed Dog -----	1





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