THIRD EDITION



# CATALOG NO. 139AA

# **STYLES**

39800AA	39800AX
39800AB	39800AY
39800AL	39800VAL
39800AN	39800VAN
39800AP	39800VAQ
39800AQ	39800VAW
39800AT	39800VAX
39800AW	39800VAY

SMALL FRAME HIGH SPEED
FOUR AND FIVE THREAD VERTICAL NEEDLE
DIFFERENTIAL FEED WITH
QUICK STITCH CHANGE MECHANISM

Catalog No. 139 AA

INSTRUCTIONS

F O R

ADJUSTING AND OPERATING

LIST OF PARTS

C L A S S 3 9 8 0 0

STYLES

3	9	8	0	0	AA	3	9	8	0	0	AX
3	9	8	0	0	AB	3	9	8	0	0	AY
3	9	8	0	0	AL	3	9	8	0	0	VAL
3	9	8	0	0	AN	3	9	8	0	0	VAN
3	9	8	0	0	AP	3	9	8	0	0	VAQ
3	9	8	0	0	AQ	3	9	8	0	0	VAW
3	9	8	0	0	AT	3	9	8	0	0	VAX
3	9	8	0	0	AW	3	9	8	0	0	VAY

Third Edition

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# UNION SPECIAL CORPORATION

INDUSTRIAL SEWING MACHINES

CHICAGO

Printed in U.S.A.

#### IDENTIFICATION OF MACHINES

Each UNION SPECIAL machine is identified by a Style number which is stamped into the 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 39800 AA". 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 39800 AAZ".

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 39800".

The distance between the rows of stitches or between the needles is represented by a gauge number measured in 1/64ths of an inch (.40 mm), going from left to right. The width of overedge is represented by a fraction. Collectively, the gauge number and the width of overedge represent the machine gauge. Example: "5-1/8". Thus, 5-1/8 gauge represents a distance of 5/64 inch (1.98 mm) between the left needle (401 stitch) and the right needle (503 or 504 stitch) and the 1/8 inch (3.18 mm) represents the width of overedge to the right of the right hand needle.

#### APPLICATION OF CATALOG

This catalog applies specifically to the Standard Styles of machines as listed herein. It can also be applied with discretion to some Special Styles of machines in this class. Reference to direction, 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.

#### STYLES OF MACHINES

Vertical Needle, Small Frame, High Speed, Two Straight Needles, Left Needle in Front, Differential Feed with Quick Stitch Change Mechanism, Light, Medium and Heavy Duty Machines, Trimming Mechanism with Spring Pressed Lower Knife, Automatic Lubricating System. Improved Air Cooling System.

- 39800 AA Two loopers, one spreader, four thread dual stitch; 401 double locked stitch on left needle and 503 two thread overedge stitch on right rear needle. Light to medium duty machine for simultaneously seaming and overedging on sport and dress shirts, ladies' blouses, street and house dresses, coat and jacket linings, pillow cases and similar operations on light to medium weight durable press or conventional materials. Seam specification (401-503) 515-SSa-2; standard gauge and seam widths are 5-1/8 (1.98-3.18 mm) and 12-3/16 (4.76-4.76 mm); stitch range 7 to 12 per inch; cam adjusted main feed and operator adjustable differential feed. Maximum recommended speed 7000 R.P.M.
- 39800 AB Same as Style 39800 AA, except three loopers, five thread dual stitch; 401 double locked stitch on left needle and 504 three thread overedge stitch on right rear needle. Seam specification (401-504) 516-SSa-2. Standard gauge and seam widths are 5-1/8 (1.98-3.18 mm) and 12-3/16 (4.76-4.76 mm)
- 39800 AL Three loopers, five thread dual stitch, 401 double locked stitch on left needle and 504 three thread overedge stitch on right rear needle. High capacity, light to medium duty machine fitted with 39600 sewing parts; for setting sleeves and side seaming on work shirts, robes, pajamas and jackets of light to medium weight materials. Seam specification (401-504) 516 SSa-2. Machine comes with a spreader for field conversion to a (401-503) 515 stitch; standard gauge and seam width 12-3/16 (4.76-4.76 mm). Maximum recommended speed 6500 R.P.M.
- 39800 AN Same as Style 39800 AB, except light to heavy duty machine with a narrow hinged presser foot for general purpose seaming on men's and women's pants, jackets, shirts, blouses and similar garments made of light to heavy weight materials. Seam specification (401-504) 516-SSa-2. Machine comes with a spreader for field conversion to a (401-503) 515 stitch. Standard gauge and seam widths are 8-3/16 (3.18-4.76 mm) and 12-3/16 (4.76-4.76 mm); stitch range 7 to 12 per inch. Maximum recommended speed 6500 R.P.M.
- 39800 AP Same as Style 39800 AA, except medium to heavy duty for operations on slacks, jackets, sport shirts, street and house dresses, coat linings, shoulder pads and similar operations on medium to medium heavy weight materials. Maximum recommended speed 6500 R.P.M.
- 39800 AQ Same as Style 39800 AP, except three loopers, five thread dual stitch; 401 double locked stitch on left needle and 504 three thread overedge stitch on right rear needle. Seam specification (401-504) 516-SSa-2.

# STYLES OF MACHINES (Continued)

- 39800 AT Same as Style 39800 AQ, except light to medium duty, 3 to 1 shirring ratio with swing-out pressure plate shirring attachment. Standard gauge and seam widths are 5-1/8 (1.98-3.18 mm), 8-3/16 (3.18-4.76 mm) and 12-3/16 (4.76-4.76 mm); stitch range 8 to 16 per inch. Machine comes with a spreader for field conversion to a (401-503) 515 stitch.
- 39800 AW Same as Style 39800 AN, except fitted with a narrow tractor type presser foot and sewing parts for heavy seam crossing.
- 39800 AX Same as Style 39800 AP, except equipped with tractor type presser foot and associated sewing parts. Standard gauge and seam width 12-3/16 (4.76-4.76 mm) only.
- 39800 AY Same as Style 39800 AQ, except equipped with tractor type presser foot and associated sewing parts. Standard gauge and seam width 12-3/16 (4.76-4.76 mm) only.
- 39800 VAL Same as Style 39800 AL, except equipped with "AIR-KLIPP" vacuum chain cutter
- 39800 VAN Same as Style 39800 AN, except equipped with "AIR-KLIPP" vacuum chain cutter.
- 39800 VAQ Same as Style 39800 AQ, except equipped with "AIR-KLIPP" vacuum chain cutter.
- 39800 VAW Same as Style 39800 AW, except equipped with "AIR-KLIPP" vacuum chain cutter.
- 39800 VAX Same as Style 39800 AQ, except equipped with "AIR-KLIPP" vacuum chain cutter.
- 39800 VAY Same as Style 39800 AY, except equipped with "AIR-KLIPP" vacuum chain cutter.

# SPEED RECOMMENDATION

These 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 39800 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 39800 is six ounces (180 ml). A straight mineral oil of a Saybolt viscosity of 90 to 125 seconds at  $100^{\circ}$  Fahrenheit should be used.

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#### OILING (Continued)

Machine is filled with oil at spring cap under the top cover. On later model machines, an oil filler fitting has been provided in the back side of the bed casting located directly in front of the lower overedge looper thread tension post nut. 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

Needles have 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 midway between shank and eye. Collectively, type number and size number represent the complete symbol which is given on the label of all needles packaged and sold by Union Special.

Two straight needles of the same length are used in these machines. The recommended needles are Type 120 GS, size 080/032 for Style 39800 AA, AB-5 1/8 gauge; Size 090/036 for Styles 39800 AP, AQ-5 1/8 gauge, 39800 AA, AB-12 3/16 gauge; and all gauges for Styles 39800 AL, AN, AT, AW, VAL, VAN, VAQ, VAW. Type 120 GAS, size 125/049 for Styles 39800 AP, AQ, AX, AY, VAX and VAY-12 3/16 gauge machines.

Type 120 GS is a round shank, round point, set point, extra short, double groove, struck groove, ball eye, spotted, rounded scarf, with a 3/64 inch (1.19 mm) radius at scarf, chromium plated needle and is available in sizes 075/029, 080/032, 090/036, 100/040, 110/044, 125/049 and 140/054.

Type 120 GAS is the same as Type 120 GS except it has a modified point; available in sizes 110/044, 125/049 and 140/054.

Other useable needles are Type 120 GFS which is the same as Type 120 GS except it has a reduced eye and groove; available in sizes 110/044 and 125/049.

Type 120 GHS is the same as Type 120 GS except it has a thin ball point; available in same sizes.

Type 120 GKS is the same as Type 120 GHS except it has an oversize ball eye; available in sizes 075/029, 080/032, 090/036, 100/040 and 110/044.

To have needle orders promptly and accurately filled, an empty package, a sample needle, or type and size number should be forwarded. Use description on label. A complete order would read: "1000 Needles, Type 120 GS, Size 080/032".

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.

#### CHANGING NEEDLES

Release pressure on presser foot by turning presser foot release lever (A, Fig. 1, 2 or 2A) and swing presser arm (B) out of position. With needles at high position, loosen screws (C, Fig. 1) in needle head and withdraw needles.

To replace needles, insert same into needle head as far as they will go, assuring that the scarf of the needles are to the rear, tighten screws (C, Fig. 1) securely. Return presser arm (B) to position; lock presser foot release lever (A).

#### THREADING

Thread from thread stand (C, Fig. 2 or 2A) is threaded through the upper holes of tension thread guide (D) from front to back and then through the lower holes from back to front.

NOTE: Thread No. 2 (401 looper - blue color code) is threaded through the upper hole of tension thread guide (D) from back to front and down through tension post thread bar eyelet

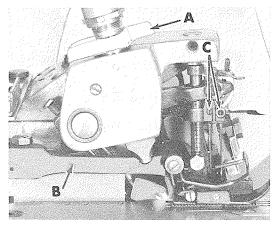


Fig. 1

(E). All other threads continue between the tension discs (L), through tension post slot (M) in tension post (J) and on through its proper hole in front thread guide (P).

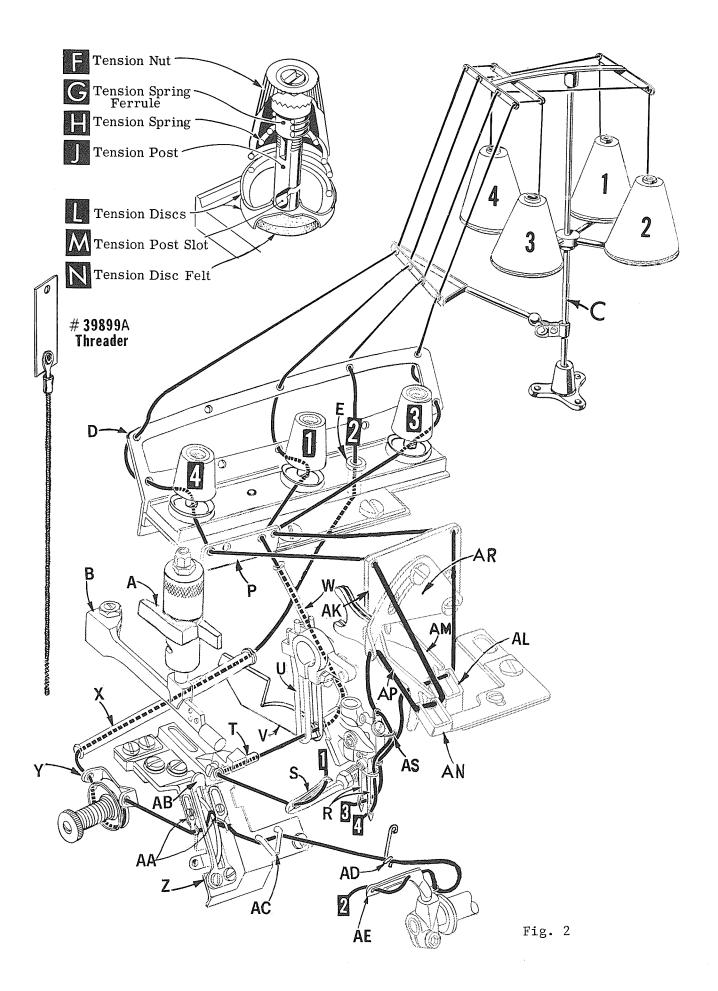
It will simplify the threading of these machines to follow the recommended sequence as designated by the numbers assigned to each thread, starting with thread No. 1, then No. 2, etc. The various eyelets and guides on the machine for each thread have been color coded to further aid the threading process.

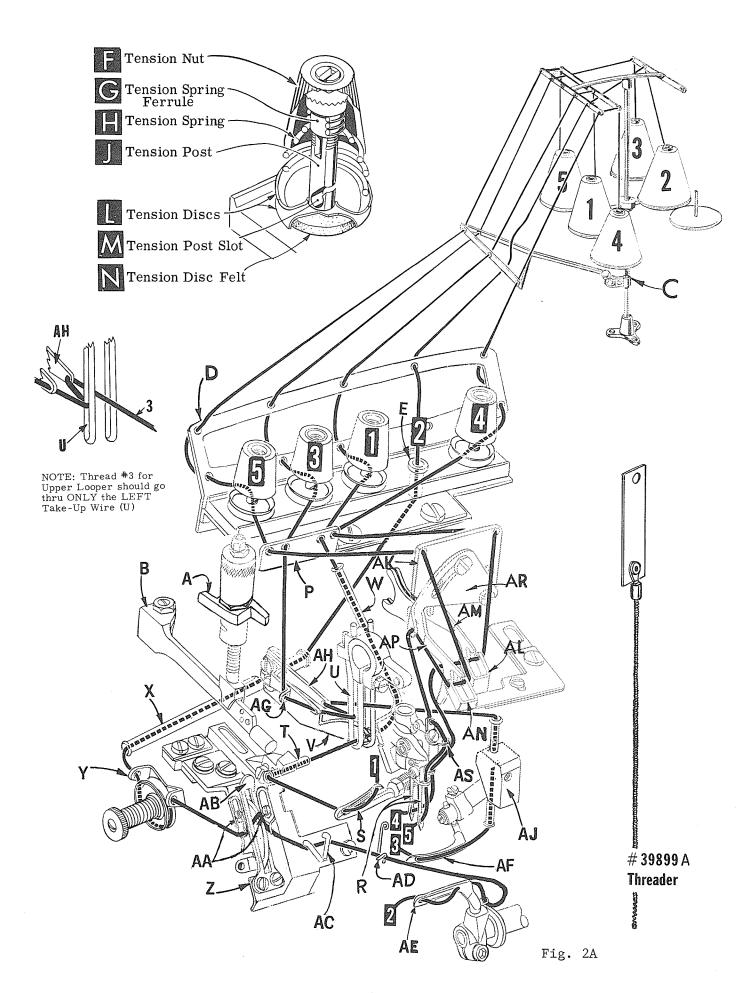
Thus, the threading sequence for Styles 39800 AA, AP and AX (503 stitch) is as follows: Thread No. 1, lower looper thread - golden beige color code; thread No. 2, 401 looper thread - blue color code; thread No. 3, overedge needle thread - green color code; thread No. 4, 401 needle thread - red color code.

The threading sequence for Styles 39800 AB, AL, AN, AQ, AT, AW, AY, VAL, VAN, VAQ, VAW, VAX and VAY (504 stitch) is as follows: Thread No. 1, 504 lower looper thread - golden beige color code; thread No. 2, 401 looper thread - blue color code; thread No. 3, 504 upper looper thread - black color code; thread No. 4, overedge needle thread - green color code; thread No. 5, 401 needle thread - red color code.

NOTE: Refer to Fig. 2 for conversion of Styles 39800 AL, AN, AT, AW, VAL, VAN, VAQ, VAW, VAX and VAY to a four thread (503 stitch).

Before beginning to thread, swing cloth plate open, turn handwheel in operating direction until the needles (R, Fig. 2 or 2A) are at their highest position, release pressure on presser foot by turning presser foot release lever (A), and swing presser arm (B) out of position.





#### THREADING LOWER LOOPER (Golden Beige Color)

Turn handwheel until the point of lower looper (S) is all the way to the right. Use threading wire #39899 A (Fig. 2 or 2A) by inserting into the left end of tube (T) and push through same; through the inside of take-up wires (U) passing over and/or in front of cast-off blade (V) and through long tube (W) until the threading wire protrudes out of same in front of the front thread guide (P). Hook lower looper thread (No. 1) into the threading wire and pull back until the thread comes out of the left end of tube (T). Turn handwheel until the lower looper (S) is at its extreme left position; then thread lower looper through its left eye, entering from the rear and through the right eye, entering from the front.

#### THREADING 401 LOOPER (Blue Color Code)

Double end of 401 looper thread (No. 2) and feed same from right to left through thread tube (X) or use threading wire #39899 A in reverse manner; thread through tension thread eyelet (Y) from back to front passing between tension discs around the bottom of tension post, then continuing forward to the cast-off support plate (Z). Thread through adjustable eyelets (AA) from left to right passing under cast-off wire (AB) and over the take-up, under thread guide wires (AC), through pigtail eyelet (AD) from left to right and up through eyelet on shank of looper (AE). Insert doubled end of thread into right eye of looper (AE) from right to left pushing through approximately and inch or so of thread. Holding tweezers in left hand, insert doubled end of thread into left eye, from front to back, using about 3/16 inch (4.76 mm) projection of thread from point of tweezers. DO NOT THREAD LOOPER WITH NEEDLE LOOP AROUND LOOPER. REMOVE LOOP, OTHERWISE MACHINE WILL NOT SEW.

# THREADING UPPER LOOPER (Black Color Code)

Turn handwheel until point of upper looper (AF) is all the way left. Double end of upper looper thread (No. 3 on Styles 39800 AB, AL, AN, AQ, AT, AW, AY, VAL, VAN, VAQ, VAW, VAX and VAY) and lead the thread through the auxiliary looper thread eyelet (AG) from back to front and then through both eyes of the upper looper thread eyelet (AH) from left to right; passing through the inside of the LEFT take-up wire (U) and in front of the RIGHT take-up wire.

After pulling up the upper looper thread tube assembly (AJ), lead thread down through tube assembly and pull thread out bottom of tube. Push tube down and insert the thread through the eye of the upper looper (AF) from front to back.

#### THREADING OVEREDGE NEEDLE (Green Color Code)

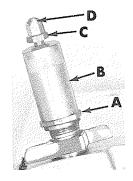
Pass the overedge needle thread (No. 3 on Styles 39800 AA, AP and AX; No. 4 on Styles 39800 AB, AL, AN, AQ, AT, AW, AY, VAL, VAN, VAQ, VAW, VAX and VAY) through the right eye of needle thread frame eyelet (AK) from back to front, through both eyes of needle thread pull-off eyelet (AL) from right to left, passing in front of needle thread cam pull-off (AM) and down through the right eyelet on needle head, finally through the eye of the right needle (R) from front to back.

# THREADING 401 NEEDLE (Red Color Code)

Pass the 401 needle thread (No. 4 on Styles 39800 AA, AP and AX;No. 5 on Styles 39800 AB, AL, AN, AQ, AT, AW, AY, VAL, VAN, VAQ, VAW, VAX and VAY) through the left eye on needle thread frame eyelet (AK) from back to front, down through both eyes of needle thread pull-off eyelet (AN) from right to left, passing in front of needle thread cam pull-off (AP), up through needle thread adjustable eyelet (AR) from right to left, and down through both holes in top eyelet (AS) on needle head from back to front, down through lower eyelet on left side of needle head, then finally through the eye of the left needle (R) from front to back.

#### THREAD TENSION

The amount of tension on the needle and looper threads is regulated by the knurled tension nuts, (F, Fig. 2 or 2A). Tension on the threads should be only enough to secure proper stitch formation. Using a postal scale, the measurements are taken with the needles at the top of their stroke and pulled in the direction as indicated. As a start, the approximate tensions should be as follows:



401 needle thread; 2 to 2 1/2 oz. (56.70 to 70.87 gr) straight out of lower eyelet on left side of needle head.

Overedge needle thread; 1 1/2 to 2 oz.(42.52 to 56.70 gr) straight out of lower eyelet on right side of needle head.

Lower looper thread; 1 to 1 1/2 oz. (28.35 to 42.52 gr) straight out of left end of thread tube (T, Fig. 2 or 2A).

Upper looper thread; 1 to  $1 \frac{1}{2}$  oz.(28.35 to 42.52 gr) straight out bottom of thread tube assembly (AJ, Fig. 2A).

Fig. 3

401 looper thread; 1 to 1 1/2 oz.(28.35 to 42.52 gr) straight out of eye at point of looper (AE, Fig. 2 or 2A).

Further refinement of thread tension adjustments will be required to suit a particular seam, thread or material and is discussed at the conclusion of the adjusting instructions.

#### PRESSER FOOT PRESSURE

Sufficient 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. 3) and turn the adjusting screw (B). Adjusting screw has a right hand thread so tightening increases the pressure, loosening decreases pressure. When pressure adjusting screw (B) has been properly set, tighten lock nut (A) against adjusting screw (B). With presser foot resting on the throat plate, position locking nut (C) so that its under surface is approximately 1/32 to 1/16 inch (.79 to 1.59 mm) from the top surface of adjusting screw (B). Set the cap (D) against the locking nut (C).

#### FEED ECCENTRICS

Feed eccentrics used in these machines have been selected to produce approximately 11 stitches per inch (2.3 mm per stitch) on Style 39800 AT (all gauges); 10 stitches per inch (2.5 mm per stitch) on Styles 39800 AA, AB, AL, VAL, VAQ (all gauges); 39800 AP, AQ (5 1/8 gauge) and 8 stitches per inch (3.2 mm per stitch) on Styles 39800 AN, AW, VAN, VAW (all gauges); 39800 AP, AQ, AX, AY, VAX, VAY (12 3/16 gauge machines). It will be noted that part number 39540 B-11 is the main feed eccentric for machines producing 11 stitches per inch; 39540 B-9 or 39540 B-10 are the main feed eccentrics for machines producing 10 stitches per inch, while 39540 B-8 is the main feed eccentric for machines producing 8 stitches per inch. The differential feed eccentric for Styles 39800 AA and AB is 39540 E, while the differential feed eccentric for the remaining Styles is 39540 F.

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 eccentrics as stated in previous paragraph.

Generally speaking, differential feed determines the number of stitches produced; the main (left hand) feed eccentrics are selected in relation to the degree and direction of stretch of material being sewn, or the type of operation. For these Styles of machines use two identical eccentrics for the main feed drive.

#### FEED ECCENTRICS (Continued)

The following stitch number feed eccentrics are available under No. 39540 B; 6 7, 8, 9, 10, 11, 12, 13, 14. 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-10".

#### 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. 4) 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.

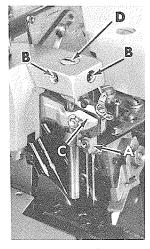


Fig. 5

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 NEEDLES

With throat plate assembled in position, the needles should center in the throat plate needle slots (left to right).

needle head (A, Figs. 5 and 6) can be repositioned by loosening set screws (B, Fig. 5) and binder screw (B, Fig. 6) in needle drive

lever (C, Figs. 5 and 6); then simultaneously turning needle head guide bar (D) which is an eccentric and sliding the needle drive lever (C) to the left or right on needle rock shaft as required to alleviate bind.

When proper left to right needle position is obtained, tighten set screws (B, Fig. 5) securely and tighten screw (B, Fig. 6) lightly. Needle

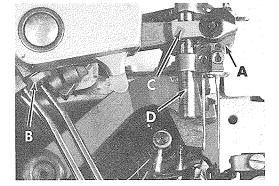


Fig. 4

Fig. 6

drive lever (C, Figs. 5 & 6) must also be positioned to set height of needles above throat plate which should be 7/16 inch (11.11 mm) on Styles 39800 AA and AB; 17/32 inch (13.49 mm) on Styles 39800 AL, AN AP, AQ, AT, AW, AX, AY, VAL, VAN, VAQ, VAW, VAX and VAY with needles at top of stroke (W, Fig. 7). Tap the needle drive lever (C, Figs. 5 and 6) lightly up or down to obtain desired needle height. Needle gauge No. 21227 DD can be used by placing it on top of the throat plate and bringing the needle head bottom to rest on top of the gauge. This will have the needles at the bottom of their stroke. Note that the gauge has separate heights, one for high, the other for low capacity machines. Tighten screw (B, Fig. 6) securely.

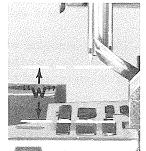


Fig. 7

#### SETTING OVEREDGE LOWER LOOPER

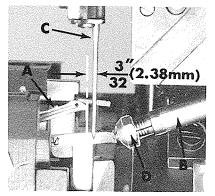


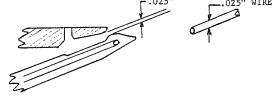
Fig. 8

Insert the lower looper (A, Fig. 8) into bar (B). With lower looper at the left end of its stroke, set looper point 3/32 inch (2.38 mm) from centerline of right needle (C). Set looper point into needle scarf to touch but not deflect, approximately .001 inch (.025 mm) clearance. Adjustment can be made by rocking the looper forward or backward around its shank. Recheck specified lower looper gauge setting and tighten nut (D, Fig. 8). Check for .025 inch (.635 mm) minimum looper clearance under throat plate stitch tongue (see sketch). Add .009 inch (.229 mm) shims No. 39880 J under throat plate support bracket if needed, but not to exceed two shims. For proper setting, looper point should be at or slightly below center

of needle scarf. Needle height may have to be changed if more than one shim is used.

#### SETTING OVEREDGE REAR NEEDLE GUARD

When overedge lower looper point is at needle scarf, set overedge rear needle guard (A, Fig. 9) so that it touches but does not deflect the needle, .000 to .004 inch (.000 to .102 mm) clearance. Check to ensure that needle guard does not interfere with the lower looper or movement of the



lower knife holder. Screw (B) is used to set the rear needle guard. The needle thread is to be free to pass through the needle eye without being pinched by the needle guard with the needle down.

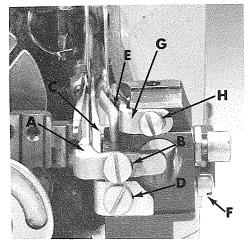


Fig. 9

# SETTING OVEREDGE FRONT NEEDLE GUARD

With needle at bottom position, set front overedge needle guard (C, Fig. 9) to touch but not deflect needle, .000 to .004 inch (.000 to .102 mm) clearance. Guard should not pinch thread in needle eye. Screw (D) is used to set front needle guard. After making adjustment, make sure there is no interference between needle guards and differential feed dog.

# SETTING OVEREDGE UPPER LOOPER OR SPREADER

NOTE: When using upper looper, use looper No. 39808 A for needle sizes 075/029 through 100/040. Use looper No. 39808 C for needle sizes 110/044 through 140/054.

Insert upper looper or spreader (A, Fig. 10) in its holder. Screw (B) holds the looper or spreader in its holder and permits looper or spreader to be pushed in or out, or turned around its shank. Screw (C) in the collar, holds the holder in the shaft and allows the holder to be rotated or adjusted laterally.

NOTE: Specific settings for the various machine Styles, are as follows:

Machine Styles	(Fig. 10) "X" Approximate Degrees Shank Back of Vertical	(Fig. 11) "Y" Spreader's Lower Point to Left of Centerline of Right Needle	(Fig. 11) "Y" Looper Point to Left of Center- line of Right Needle	(Fig. 11) "Z" Height Above Throat
39800 AA	150	5/32 inch (3.97 mm)		19/32 inch (15.08 mm)
39800 AB	45 <sup>0</sup>		11/64 inch (4.37 mm)	9/16 inch (14.29 mm)
39800 AP,	AX 15°	5/32 inch (3.97 mm)		21/32 inch (16.67 mm)
39800 AL, AQ, AT, AW VAL, VAN, VAW, VAX,	V, AY VAQ,		5/32 inch (3.97 mm)	21/32 inch (16.67 mm)

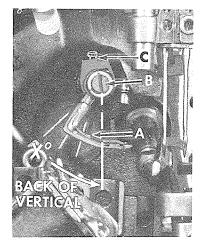


Fig. 10

When looper or spreader is at the right end of its stroke, the holder should be set to position the looper or spreader shank approximately "X" degrees back of vertical and flush with the top of holder (Fig. 10), on all Styles except 39800 AA, AB, and approximately 1/16 inch (1.59 mm) above the holder on Styles 39800 AA, AB. On later machines with the new looper/spreader holder (See Fig. 10A), settings are the same for "X", "Y", and "Z" except for location of shank with respect to top of holder. setting should be approximately 1/32 inch (.79 mm) above the holder on all Styles except 39800 AA, AB and

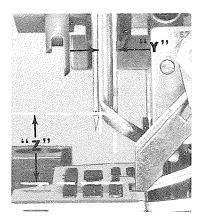


Fig. 11

approximately 3/32 inch (2.38 mm) above the top of holder on Styles 39800 AA, AB. These settings may vary depending on needle

size. NOTE: Lines in bed casting represent 15, 30 and 45 degrees back of vertical. CAREFULLY set looper or spreader point to cross lower looper to the left of lower looper eye with approximately .002 inch (.051 mm) clearance. At extreme left end of travel, the looper point or the lower point of the spreader should be set "Y" dimension to the left of the centerline of the right needle and "Z" dimension above the throat plate (Fig. 11).

Now check relationship between looper or spreader and needle to ensure no deflection. If needle rubs back of either, pull looper or spreader out of its holder slightly and rotate the holder forward a short distance. These same adjustments, in opposite movement, will reduce the clearance between looper or spreader and needle. Reset to lower looper and recheck crossover setting. NOTE: On larger size needles (125/049 and 140/054), some needle deflection may result, but should not exceed .002 inch (.051 mm).



Fig. 10A

#### SETTING 401 STITCH LOOPER

Insert 401 stitch looper into looper holder and press down until the butt end of the shank strikes the looper shaft. Looper will be at correct height. Tighten the looper clamp screw while working the looper blade to and fro to secure accurate seating of clamp screw against flat on shank.

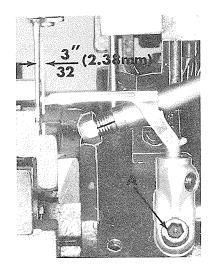


Fig. 12

With looper at the right end of its stroke, set looper 3/32 inch (2.38 mm) from centerline of left needle (Fig. 12), using looper gauge No. 21225-3/32. Loosen looper holder binder screw (A, Fig. 12) to position the looper. Turn the handwheel to bring the looper point up to the needle, and set the looper point to touch the needle without deflecting, approximately .001 inch (.025 mm) clearance, viewing the machine from the left end (Fig. 13). Retighten looper holder binder screw. Check for .025 inch(.635 mm) minimum 401 looper clearance under throat plate.

These machines are fitted with an adjustable 401 looper avoid link to accommodate extreme needle sizes from 075/029 to 140/054. Machines shipped from the factory will have the setting for the sizes as listed under the "NEEDLES" paragraph, unless otherwise specified. Should adjustment become necessary, drain oil from the machine

and remove bottom cover. Loosen nut (A, Fig. 14) and rotate eccentric stud (B) to align the letter "S", "M" or "L" which represent small, medium or large looper avoid, respectively, with timing mark in looper avoid link (C) as required. To ensure a uniform setting, position the needle head at the bottom of its stroke before aligning the letter on the eccentric stud with respect to the timing mark in the looper avoid link. Recommended settings for machines using needle sizes:

075/029,	080/032,	090/036	"S"
080/032,	090/036,	100/040	"M"
110/044.	125/049.	140/054	"L"



Fig. 13

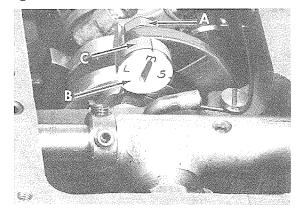


Fig. 14

Tighten nut (A) to 24-25 in. 1bs. (28-29 cm/kg). Replace bottom cover and fill machine to proper oil level.

While hand turning machine through cycle, observe the action of the needle with relation to the looper. As needle rises from the bottom of its stroke, the looper will approach the needle from right side and pass behind at top of needle scarf without striking. Further rising of the needle will result in the looper point entering the scarf. Furthermore, since the needle point is coming off the rear guard, the needle will resume its normal position by moving to the rear, resulting in close relation of the needle and looper, or actual contact, until scarf passes looper. On the down stroke, the needle should pass behind the looper without the point glancing off the guarding surface of the looper.

#### SETTING 401 STITCH REAR NEEDLE GUARD

Insert rear needle guard into the hole in the throat plate support bracket.

When 401 looper point is at the center of the needle scarf, set 401 rear needle guard (E, Fig. 9) so it touches but does not deflect needle, .000 to .004 inch (.000 to .102 mm) clearance. This guard setting will be approximately 3/16 to 7/32 inch (4.76 to 5.56 mm) below throat plate seat. With needle in down position, guard should not pinch thread in needle eye. Then lock the guard in place with set screw (F).

#### SETTING 401 STITCH FRONT NEEDLE GUARD

With needle at bottom position, set front 401 needle guard (G, Fig. 9) to touch but not deflect needle, .000 to .004 inch (.000 to .102 mm) clearance. Guard should not pinch thread in needle eye. Check for clearance between 401 looper and front 401

needle guard. Turn handwheel in operating direction, making complete revolutions to check whether needle is disturbed or pinched. Lock with screw (H).

For convenience, the looper may now be threaded as shown in (Fig. 2 or 2A) and as described under parapraph "To Thread 401 Looper". Replace differential feed dog, throat plate, lower knife holder and reset upper knife. Check cutting action with thread.

#### SETTING THE FEED DOGS

Assemble main and differential feed dogs (A, B, Fig. 15).

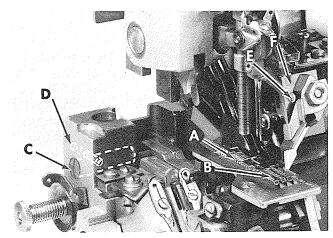


Fig. 15

Feed dogs should be level with the throat plate surface by rotating feed tilting adjusting pin (C). This pin raises or lowers the back end of feed bar. Feed dogs should be level at the time teeth first appear above the throat plate. Screw (D) locks the feed tilting adjusting pin in place. Now set feed dogs at highest point of travel. Main and differential feed dog teeth should be set 3/64 inch (1.19 mm) above the throat plate.

# G H E A

Fig. 16

#### SETTING THE LOWER KNIFE

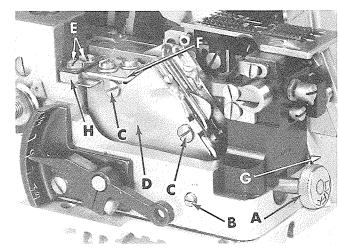
Replace the lower knife holder assembly. In replacing the lower knife holder assembly, tighten screw (A, Fig. 16) so that when the face of the flange on sleeve (B) seats against throat plate mounting bracket (C), a free lateral motion of the lower knife and holder assembly is obtained when the knife is manually pressed at its upper corner. Lower knife (D) should be set with cutting edge flush with top of throat plate. Adjustments are made with hexagonal head screw (E) which holds the lower knife. Lower knife is spring pressed against the upper knife, so no lateral adjustment is necessary when the width of trim is changed.

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

Replace the upper knife assembly. Clamp upper knife (H, Fig. 16) in position,

setting nut (J) to hold clamp (K) in its most clockwise position against upper knife. At the bottom of its stroke, front cutting edge of upper knife should extend not less than 1/64 inch (.40 mm) below cutting edge of lower knife. The chain guard (L) should be set down against the upper knife and slightly back from the cutting edge.

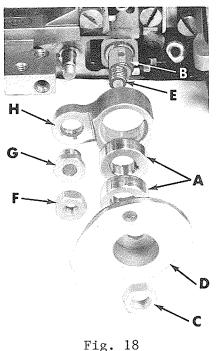
After upper knife has been set for proper width of trim, screw (E, Fig. 15) should be tightened to lock upper knife holding block (F) in place. This will simplify resetting when upper knife is replaced.



#### SETTING THE STITCH LENGTH

Fig. 17

The stitch length is determined by two factors in combination; one is the main feed eccentrics used and the other the setting of the differential feed control.



The differential feed control is independent of the main feed.

The hand operated knurled knob marked "DIFF" is for adjusting the differential stitch length.

The uppermost letter "L" marked on the stitch indicator plate indicates the longest feed travel (longest stitch length), while the lowermost letter "S" indicates the shortest feed travel (shortest stitch length). Therefore, moving the indicator pointer of the differential control down shortens the stitch length and upward lengthens the stitch.

After selecting the proper eccentrics for the main feed, and the main and differential feed dogs have been set, turn the differential knob until the desired seam is obtained. As a precaution, after setting the stitch length check the travel of both feed dogs to make sure that there is clearance between the throat plate slots and the main and differential feed dogs.

# SETTING THE DIFFERENTIAL FEED CONTROL

Turn the stitch regulating screw (A, Fig. 17) as required to obtain stitch length desired and tighten lockscrew (B) to lock differential feed control in place. Style 39800 AT is also equipped with a knee press intermittent differential feed control; a stop screw is provided in the stitch indicator plate which can be adjusted to limit the travel of differential feed dog to avoid striking ends of throat plate slots.

#### REMOVING THE ECCENTRICS

The outer (left) eccentrics (A, Fig. 18) actuate main (rear) feed dog. In assembling feed eccentrics, be sure hubs are facing each other. Be careful not to damage the shaft or key.

#### REMOVING THE ECCENTRICS (Continued)

To change feed eccentrics, remove screws (C, Fig. 17) securing cast-off support end plate (D); remove screws (E) and screw securing the extreme right end of cast-off support plate (F) accessible with chip chute (G) open; turning handwheel to position 401 looper at extreme right, permitting removal of the left main feed thrust bar guide (H) with cast-off support plate (F) assembled. Remove nut (C, Fig. 18) and looper thread take-up (D) from end of shaft (E). Turn handwheel in operating direction until key slot in eccentric is toward the front. Using hooked eccentric extractor supplied with machine, reach behind eccentrics 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) and take-up (D, Fig. 18) from shaft (E), it may be helpful to remove nut (F), ferrule (G) and feed driving connection (H). Then continue as originally suggested.

NOTE: Before tightening nut (C, Fig. 18) refer to paragraph under "401 Looper Thread Control Adjustments".

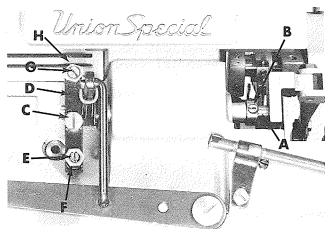


Fig. 19

#### 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 important that the bottom of the presser foot lies flat on the throat plate. If necessary, presser foot can be realigned with throat plate slots by shifting the foot lifter lever shaft (A, Fig. 19). To move the shaft, loosen screws in collar

(B) and clamp screw (C) 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 (D, Fig. 19) and the collar (B) secure the shaft. Be sure the presser arm does not bind and rise when presser foot release lever is unlocked.

Adjust lifter lever stop screw (E, Fig. 19) so that presser foot can be raised no higher than upper looper or spreader will permit; then lock the nut (F). There should be from 1/16 to 1/8 inch (1.59 to 3.18 mm) free motion of foot lifter lever before the presser foot begins to rise. This adjustment should be made with screw (G) and locked with nut (H). Re-assemble the chip guard, fabric guard and cloth plate. To assemble chip guard, turn handwheel until upper knife assembly reaches its highest position.

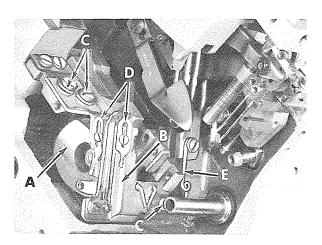


Fig. 20

#### SETTING THE PRESSER FOOT (Continued)

NOTE: Tractor presser foot to be set with front wall of 401 needle slot in presser foot to be 1/16 inch (1.59 mm) forward from front wall of 401 needle slot in throat plate. Check to make sure 401 and overedge needle does not interfere with presser foot when presser foot is raised to highest position and front portion of foot is tilted down in front.

#### 401 LOOPER THREAD CONTROL ADJUSTMENTS

Check alignment of looper thread take-up (A, Fig. 20) in slot of cast-off support plate (B), which should be centered horizontally and vertically. Should adjustment be necessary, loosen screws (C), reposition plate (B) as required while rotating handwheel several revolutions. Tighten screws (C) securely.

With the needle head at the top of its stroke, the long flat of looper thread take-up (A, Fig. 20) should be positioned to begin taking up slack of the looper thread (long flat parallel to cast-off support plate). It may become necessary to slightly advance or retard take-up later, to produce a satisfactory 401 stitch.

The adjustable eyelets (D, Fig. 20) partially determine the amount of looper thread that goes into the stitch. When set at their lowest position, the maximum amount of thread is drawn. Initial setting should be 1/8 inch (3.18 mm) from the highest position. They may be lowered to put more looper thread into the stitch as required.

Set pigtail eyelet (E, Fig. 20) initially at the six o'clock position. Vary this position slightly, if necessary, until the 401 looper thread is taut when the needles reach their highest position.

NOTE: When eccentric cams are changed or looper thread take-up requires adjustments, always torque nut (C, Fig. 18) to 24-25 in. lbs. (28-29 cm/kg).

NOTE: For lighter thread, cast off looper thread 1/32 inch (.79 mm) below throat plate.

#### STARTING TO OPERATE

Be sure the machine is threaded according to the threading diagram (Fig. 2 or 2A).

#### OVEREDGE LOWER LOOPER THREAD CONTROL

Set thread tube (W, Fig. 2 or 2A) so the opening at its left end aligns with thread tube (T), though later it may be repositioned slightly to suit conditions. With needles at high position, the opening of the lower looper thread take-up wires

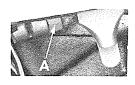


Fig. 21

(U) should be centered between the thread tubes, front to back. Adjustment can be made by loosening screw (A, Fig. 21), reposition take-up wire lever as required and retighten screw. A preliminary setting of the lower looper cast-off blade (V, Fig. 2 or 2A) is to position its curved section to contact thread as soon as the needle head commences its downward stroke and barely touches the thread on its vertical surface located at the heel of the blade as the needle head completes its downward stroke. The

cast-off blade can later be raised or lowered to increase or decrease amount of thread required in the system.

NOTE: When adjusting cast-off blade and tightening its mounting screw, be sure that the fabric guard rests on top of thread tube (T).

#### OVEREDGE NEEDLE THREAD CONTROL

While sewing on material, check needle thread control as follows: Usually all needle thread is drawn on needle down stroke. Needle thread take-up (AM, Fig. 2 or 2A) should be set approximately in the center to upper portion of its slot, though it can be adjusted up or down to suit conditions. With the needle head at lowest position, the finger of the take-up (AM) should be set approximately 1/32 inch(.79 mm) below the thread holes in eyelet (AL) for the 504 stitch. The 503 stitch requires more strike-off and should be set approximately 1/8 to 3/16 inch (3.18 to 4.76 mm) depending on thread, material and stitch length. With needle head at highest position, the curved section of thread take-up (AM) should barely touch the needle thread. Adjust eyelet bracket (AL) forward or rearward to meet these conditions.

#### IPPER LOOPER THREAD CONTROL

With needles at high position, set looper thread eyelet (AH, Fig. 2A) approximately horizontal and so positioned, with thread taut through eyelet holes, thread barely contacts inside front wire of the left take-up wire (U). Make sure when needles are at down position, the rear wire of the left take-up wire (U) does not strike the inside of eyelet (AH). Usually all looper thread should be drawn on needle down stroke.

#### 401 NEEDLE THREAD CONTROL

Set needle thread adjustable eyelet (AR, Fig. 2 or 2A) so that most of the needle thread is drawn on the downstroke. Eyelet (AS) located at top of needle head should be positioned with the bottom eye in line with the left needle.

#### THREAD TENSIONS

With take-ups and eyelets set, as described under thread controls, balance the thread tensions to obtain desired 401 and overedge stitch.

# SETTING THE PRESSURE PLATE ASSEMBLY

Style 39800 AT is equipped with an auxiliary pressure plate assembly which operates in conjunction with the presser foot.

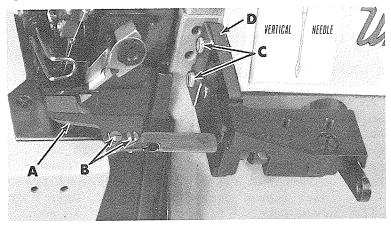


Fig. 22

Set pressure plate(A, Fig. 22) to lay flat and contact all of the differential feed dog teeth when feed dog is at top of feed cycle. Pressure plate is to be centered over the feed dogs with both sides of pressure plate resting on the throat plate when feed dogs are at bottom of feed cycle. It may be necessary to bend the pressure plate slightly to acquire the leveling position. The pressure plate should be set to extend far enough under the presser foot so that only one tooth of the differential feed

dog passes the end of the pressure plate at the rear of the feeding cycle. Adjustment can be made by loosening screws (B) allowing forward or rearward movement of pressure plate (A). Additional adjustment can be obtained by loosening screws (C) and moving mounting bracket (D). Lateral adjustment can be accomplished by loosening screws in collar (A, Fig. 23), actuating collar (B) and operating lever (C), allowing movement of pressure plate shaft (D). Align the presser foot to the throat plate needle holes and flat on the throat plate.

#### SETTING THE PRESSURE PLATE ASSEMBLY (Continued)

Adjust presser foot forward or rearward to allow 1/32 to 3/64 inch (.79 to 1.19 mm) clearance between the top of the pressure plate and underside front of the presser foot bottom. Check to make sure the front section of the main feed dog teeth are in contact with the presser foot bottom as the feed dogs reach their rearward position. Thrust collars (A and B) against inside of shaft bracket (E) to ensure no end play in the pressure plate shaft. Position operating lever (C) to rest into the slot of the shaft bracket. Tension on the pressure plate can be increased or decreased by loosening set screw (F) in shaft bracket (E) and turning shaft collar (G) with spanner wrench No. 21388 Y, furnished with machine.

#### "AIR KLIPP" VACUUM CHAIN CUTTER ADJUSTMENTS

The "AIR-KLIPP" chain cutter tube should be assembled as close to the cut-out in the throat plate as possible without touching; .005 inch (.127 mm) to .030 inch (.762 mm) clearance.

Check that knife pressure is only enough to ensure proper cutting. Set movable knife to trim.

The "AIR-KLIPP" chain cutter should be capable of cutting, NOT TEAR-ING, a single strand of thread when turning machine over by hand.

The cutting edge of the movable knife should extend beyond the cutting edge of the stationary knife a minimum

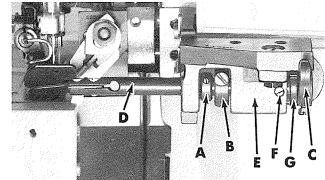


Fig. 23

of 1/64 inch (.40 mm) when at extreme right end of stroke.

Care must be taken to provide clearance between movable knife and inner wall of "AIR-KLIPP" chain cutter tube when the movable knife is at the extreme right end of stroke.

Lubricate felt, oil wick and movable knife with a straight mineral oil equivalent to Union Special Specification No. 175.

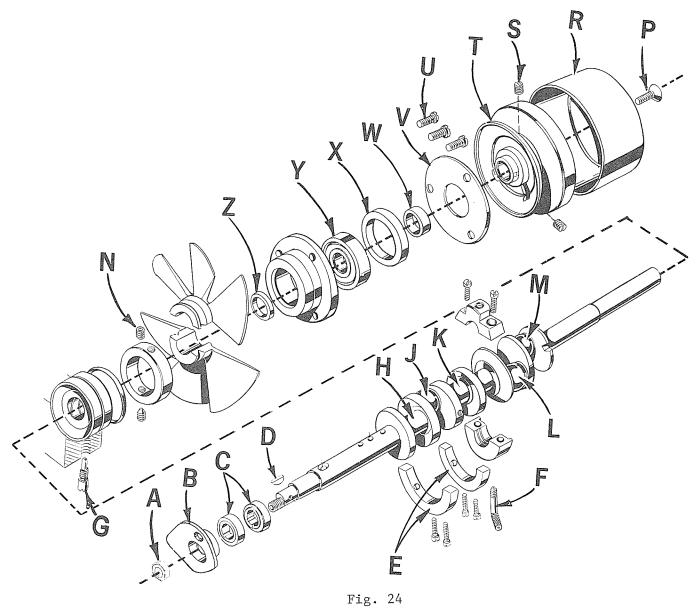
#### SPECIAL ADJUSTMENTS

SKIPPING: If skipping occurs, check and /or adjust the following:

- (A) Overedge Stitch
  - 1. Recheck lower looper to needle setting.
  - 2. Recheck overedge needle guard setting.
  - 3. Recheck upper looper or spreader to lower looper settings.
  - 4. Recheck upper looper or spreader to needle setting.
- (B) 401 Stitch
  - 1. Recheck 401 looper to 401 needle setting.
  - 2. Recheck 401 needle guard settings.
  - 3. Check 401 looper cast-off cam take-up timing see note under "401 Looper Thread Control Adjustment".
  - 4. Should 401 chain skipping occur, recheck "Setting The Presser Foot".

Crankshaft can be withdrawn easier if these steps are followed:

- 1. Drain oil by removing plug screw located on back of machine near bottom edge of base.
- 2. Remove top and bottom covers of machine.



- 3. Remove nut (A, Fig. 24), 401 looper thread take-up (B) and eccentrics (C).
- 4. Remove key (D).
- 5. Remove two counterweights (E). Identify these counterweights so that they will be re-assembled in the proper places.
- 6. Remove oil tube (F) which holds crankshaft split bearing and oil pump, and the screw (G) which holds the inner right crankshaft bearing. They are accessible through bottom of bed casting.

7. Remove caps of bearings on crankshaft at points H, J, L and M. When re-assembling bearing caps make sure they are in their original position. Trademarks are stamped on both halves of the caps and both trademarks should be on the same side of the bearings. Also, screws should be reassembled in the same holes from which they were removed.

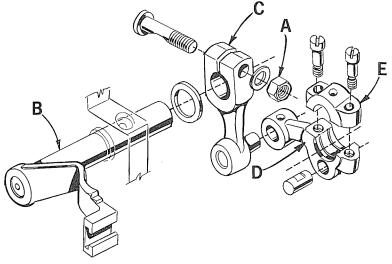


Fig. 25

- 8. Remove 401 looper drive lever shaft.
- 9. Remove upper looper or spreader drive lever shaft from the rear of machine and lift out the drive lever and connecting rod.
- 10. Remove upper looper or spreader drive shaft bushing and cam guide.
- 11. Remove lower looper drive lever shaft from the rear of machine, disconnect connecting link and lift out lower looper drive lever and connecting rod.
- 12. Remove lower looper thread take-up wire and take-up eyelet mounting bracket.
- 13. Remove throat plate and lower knife support bracket.
- 14. Loosen clamp nut (A, Fig. 25) which holds the upper knife driving arm (B).Access to clamp nut is through top cover. Draw driving arm to the left until upper knife driving lever (C) and connecting rod (D) drop, allowing removal of bearing cap (E). This is at bearing point (K, Fig. 24) on crankshaft. Observe same precautions when reassembling cap as described in paragraph 7.
- 15. Loosen two screws (N) in fan collar; remove both halves of cooling fan.
- 16. Remove screw (P); take off pulley cap (R).
- 17. Loosen two screws (S); remove pulley (T).
- 18. Remove three screws (U); take off bearing retaining plate (V); also, spacer collars (W) and (X) may be removed at this time.
- 19. Crankshaft may now be removed while holding needle lever connecting rod to the side.
- 20. If necessary to replace ball bearing (Y), it can be pressed off shaft on an arbor press. In replacing the bearing it must be pressed on carefully until it seats against ground thrust washer (Z).
- 21. Carefully observing reverse of the foregoing operations should simplify reassembly of crankshaft. Checking exploded view drawings for location of various parts and constant testing for binds during reassembly will also prove helpful.

#### TO REMOVE CRANKSHAFT (Continued)

22. Before reassembling, thoroughly clean and dry the top and bottom covers and gaskets. Coat the oil drain plug with a sealing compound before reassembling to prevent oil leakage. No. 1 Crane Lead Seal is recommended.

# ADJUSTING INSTRUCTIONS FOR QUICK STITCH FEED DRIVE MECHANISM

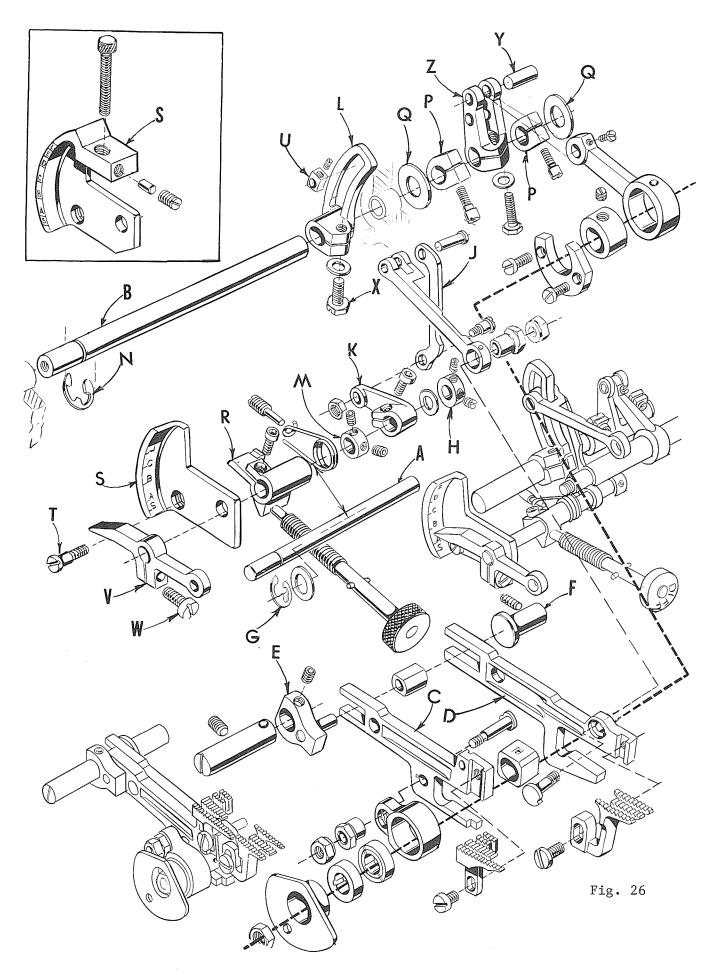
- 1. Assemble parts as illustrated to feed control shaft (A, Fig. 26) and feed rock shaft (B); including feed bars.
- 2. Thrust feed bars (C and D) against differential thrust guide on bed. Align and thrust rear of feed bars with tilt adjusting pin and feed leveling lever (E) and differential feed bar guide (F).
- 3. Thrust the feed control shaft (A) assuring that retaining ring (G) is flush against the recess in the bed casting. Collar (H) should be thrusted against the bed casting and tightened securely.
- 4. The differential feed control link (J) and differential feed control lever (K) must be in alignment with differential feed drive segment (L) to avoid binding and secured in position by collars (H and M).
- 5. Feed rock shaft (B) should be positioned with the opening of the retaining ring (N) upwards and thrusted against the differential feed drive segment (L). Secure shaft (B) in this position by thrusting collars (P) against thrust washers (Q) against the bed casting.
- 6. A bind could occur in the differential feed drive lever (K) and differential control lever actuator (R) if the indicator plate (S) is not properly aligned. See insert for configuration of (S) on Style 39800 AT. Oversize holes are provided in plate "S" for its mounting screw (T) to allow repositioning and eliminate binds.

#### DIFFERENTIAL FEED CONTROL ADJUSTMENT

- a. Move differential feed segment sliding block (U) to lowest position in differential feed drive segment (L).
- b. Rotate differential stitch indicator pointer (V) counterclockwise until the pointer is at the bottom of scale.
- c. Clamp the indicator pointer (V) with screw (W).

# DIFFERENTIAL FEED DRIVE SEGMENT ADJUSTMENT

- a. Move differential feed segment sliding block (U) to top position by rotating differential stitch indicator pointer (V) clockwise.
- b. Turn the handwheel until the feed bar is in its most rear position.
- c. Loosen differential feed drive segment clamp screw (X).
- d. Operate differential stitch indicator pointer (V) and tighten differential feed drive segment clamp screw (X) when the differential feed bar (D) shows no movement.



#### DIFFERENTIAL FEED DRIVE LEVER

a. Standard location of link pin (Y) is to be in the upper hole of differential feed drive lever (Z). For longer differential feed travel, such as for gathering, move pin (Y) to lower hole of lever (Z).

#### ORDERING REPAIR PARTS

#### ILLUSTRATIONS

This catalog has been arranged to simplify ordering repair parts. Exploded views of various sections of the mechanisms 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:

Ref. No.	Part No.	Description Req.
18	29477 MF	Crankshaft and Needle Driving Connecting Rod Assembly, for Styles 39800 AA and AB $         -$
-	29477 MB	Crankshaft and Needle Driving Connecting Rod Assembly, for all Styles except 39800 AA and AB 1
19	39852 A	Needle Driving Connecting Rod Assembly $1$
20	77	Screw 1
21	22587 M	Screw 2
22	39516-625	Needle Bearing, $.0625$ inch $(1.588 \text{ mm})$ diameter $-28$
-	39516-626	Needle Bearing, $.0626$ inch $(1.590 \text{ mm})$ diameter - $-28$
_	39516-627	Needle Bearing, $.0627$ inch $(1.593 \text{ mm})$ diameter $28$
23	30-106 Blk.	Wood Plug, birch1
24	51-228 Blk.	Vent Plug 1
25	39541 A	Feed Driving Eccentric Key1
26	CO67 E	Cork Plug 1
27	258	Nut 1

In those cases where a part is common to all the machines covered by this catalog, no specific usage will be mentioned in the description. However, when the parts for the various machines are not the same, the specific usage will be mentioned in the description and, if necessary, the differences will be shown in the illustration.

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

When the construction permits, each part is stamped with its part number. Parts too small for a complete catalog stamping are identified by letter symbols which distinguish one part from another that is similar in appearance.

# IDENTIFYING PARTS (Continued)

Part numbers represent the same part, regardless of catalog in which they appear.

IMPORTANT! ON ALL ORDERS, PLEASE INCLUDE PART NAME AND STYLE OF MACHINE FOR WHICH PART IS ORDERED.

#### USE GENUINE REPAIR PARTS

Success in the operation of these machines can be secured only with genuine UNION SPECIAL Repair Parts as furnished by the Union Special Corporation, it 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.

#### **TERMS**

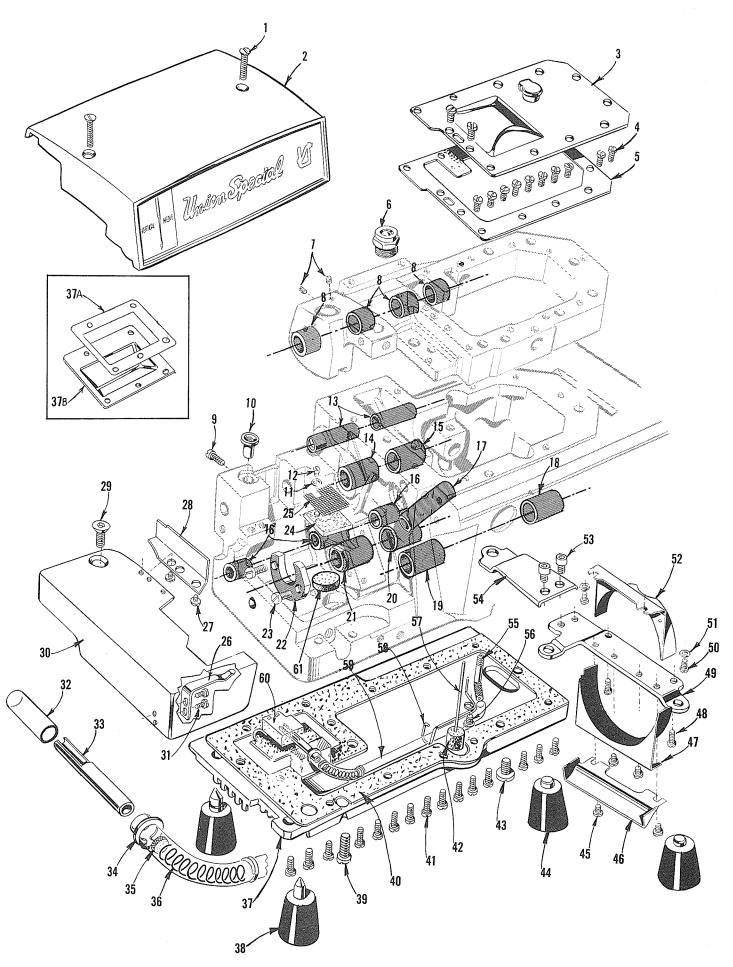
Prices are strictly net cash and subject to change without notice. All shipments are forwarded f.o.b. shipping point. Parcel Post shipments are insured unless otherwise directed. A charge is made to cover postage and insurance.

### TORQUE REQUIREMENTS

Torque (measured in inch-pounds) is a rotating force (in pounds) applied through a distance by a lever (in inches or feet). This is accomplished by a wrench, screw driver, etc. Many of these devices are available, which when set at the proper amount of torque will tighten the part to the correct amount and no tighter.

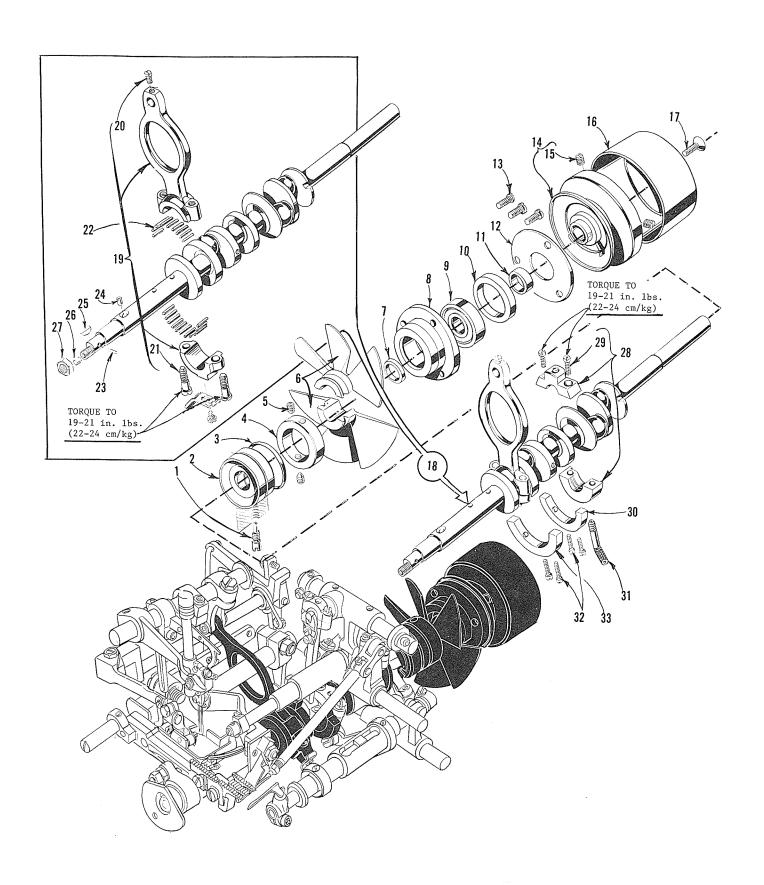
All straps and eccentrics should be tightened to 19-21 inch-pounds (22-24cm/kg) unless otherwise noted. All other nuts, bolts, screws, etc., should be tightened by hand as tightly as possible, unless otherwise noted.

The screws requiring a specific torque, will be indicated on the picture plate.



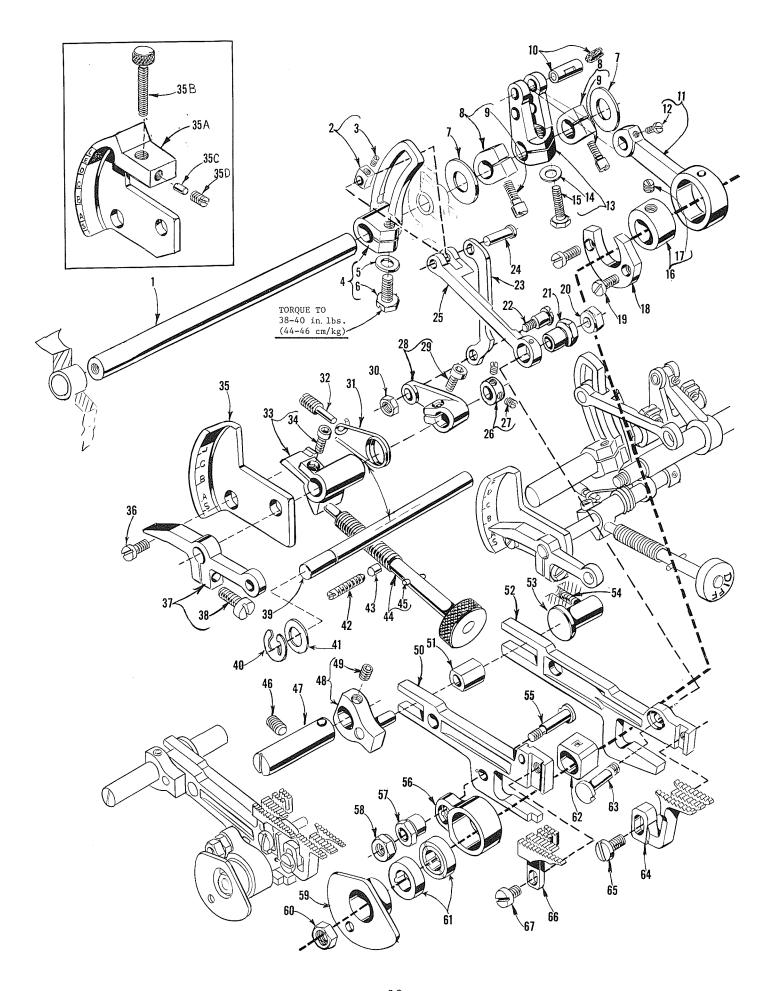
# MAIN FRAME, MISCELLANEOUS COVERS, PLATES AND BUSHINGS

Ref. No.	Part No.	Description	Amt. Req.
	22224		
1 2	22894 AG 39882 G	Screw, for top cover	- 2 1
3	39882 E	Upper Oil Shield Cover	- 1 - 1
4	22541 B	Screw, for upper oil shield cover	- 12
5	39882 F	Gasket, for upper oil shield cover	- 1
6	39893 C	Oil Filler Screw Assembly	- 1
7	88	Screw, for oil system	- 2
8 9	39852 M 22569	Needle Lever Drive Shaft Bushing	- 4 - 1
10	39501 K	Cloth Plate Stud	- 1 - 1
11	8372 A	Washer, for oil filter screen screw	- 1
12	22824 B	Screw, for oil filter screen	- 1
13	39855 D	Foot Lifter Shaft Bushing	- 2
14	39573 K	Upper Knife Driving Arm Bushing, left	- 1
15 16	39573 AA 39536 BY	Upper Knife Driving Arm Bushing, right	- 1
17	39544 L	Lower Looper Bar Bushing	- 3 - 1
18	39644 C	401 Looper Drive Shaft Bushing, right	- 1
19	39644 S	401 Looper Drive Shaft Bushing, left	- 1
20	39590 T	Crankshaft Bushing, inner left	- 1
21	39890 D	Crankshaft Bushing, left	- 1
22 23	39834 D 22569 G	Differential Feed Bar Thrust Washer Screw, for feed bar thrust washer	- 1
24	39894 B	Oil Strainer	- Z - 1
25	39894 A	Oil Filter Screen	- 1
26	39832	Cloth Plate Latch Spring	- 1
27	138	Screw, for cloth plate fabric guard	- 2
28	39578 F	Cloth Plate Fabric Guard	- 1
29 30	22657 D-12 39501 DN	Screw, for cloth plate	
<del>-</del>	39501 DN 39501 DX	Cloth Plate, for Styles 39800 AA, AB, AL, AN, AP, AQ, AW, AX, AYCloth Plate, for Style 39800 AT	- 1 - 1
_	39501 DW	Cloth Plate, for Styles 39800 VAL, VAN, VAQ, VAW, VAX, VAY (not show	
31	90	Screw, for cloth plate latch spring	- 2
32	39593 K	Oil Tube, tygothane	- 1
33 34	666-271	Oil Tube, brass	- <u>l</u>
35	660–506 56393 G	Porex Filter, for oil tube	_ 1
36	56393 V	Spring, for oil tube	- 1 - 1
37	39882 K	Bottom Cover	- 1
37A	39582 BA	Gasket, for bottom cover plate	- 1
37B	39582 AZ	Bottom Cover Plate	
38 39	51295 В 22806 А	Isolator	
40	39882 J	Bottom Cover Gasket	- 1 - 1
41	22541 B	Screw, for bottom cover	15
42	39593 C	Oil Gauge Float	- 1
43	22586 R	Screw, for bottom cover	- 1
44	39595	Isolator	- 2
45 46	22569 D 39582 BL	Screw, for lower and outer air duct Air Duct, outer	- 4
47	39582 BK	Air Duct, lower	_ 1
48	22541 B	Screw, for base plate	- 2
49	39582 ВМ	Base Plate	- 1
50	22569 C	Screw, for upper air duct	- 2
51	8372 A	Washer, for upper air duct screw	- 2
52 53	39582 BV 22653 D-4	Air Duct, upper	- 1 - 2
54	39582 F	Base Plate Extension	
55	39593 J	Oil Pump Tube	- 1
56	22569 D	Screw, for oil tube spring	- 1
57	39593 D	Oil Gauge Indicator	- 1
58	39593 L	Spring, for oil tube	- 1
59 60	666-280 666-268	Oil Tube, tygothane Felt Pad	- 1 _ 1
61	666-290	Felt Disc	
	= 1		-



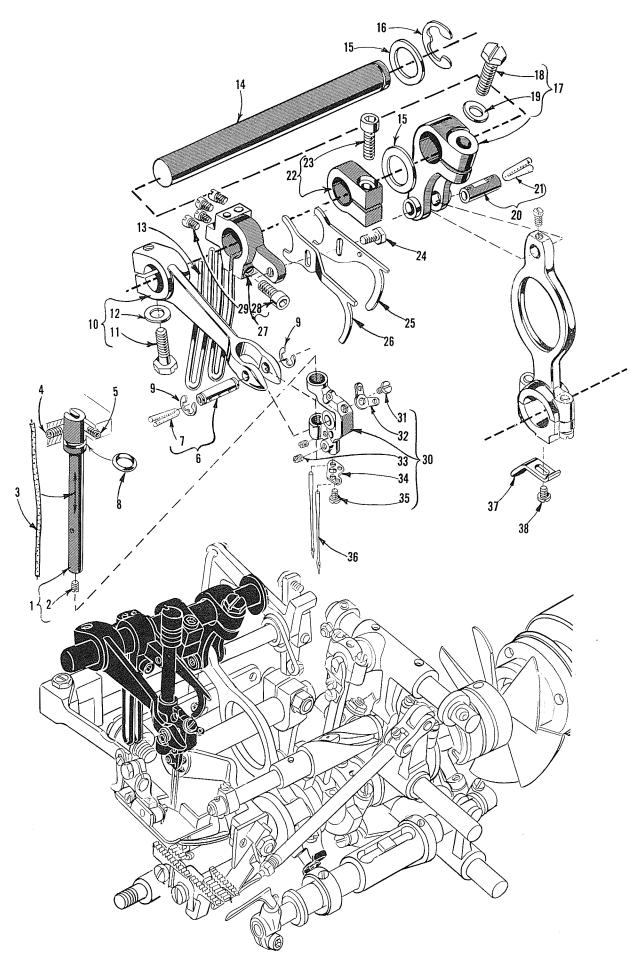
# CRANKSHAFT MECHANISM

Ref.	Part	Description Amt	
No.	No.	Req	•
1	39690 A	Stud, for crankshaft bearing 1	
2	39890 C	Crankshaft Bearing, inner right1	
3	660-443	"O" Ring, for crankshaft bearing, inner right 1	
4	39591 Н	Crank Chamber Cooling Fan Collar 1	
5	22894 D	Spot Screw, for crank chamber cooling fan collar $   -$ 2	
6	39591 L	Crank Chamber Cooling Fan 1	
7	39590 J	Thrust Washer 1	
8	39590 G	Crankshaft Ball Bearing Housing1	
9	660–268	Crankshaft Ball Bearing1	
10	39590 R	Ball Bearing Stop Collar 1	
11	39590 S	Spacer Collar1	
12	39590 Н	Crankshaft Ball Bearing Retaining Plate 1	
13	22569 В	Screw, for ball bearing retaining plate and housing $3$	
14	39521 G	Pulley 1	
15	95	Screw, for pulley2	
16	39821	Pulley Cap 1	
17	22769 В	Screw, for pulley cap1	
18	29477 MF	Crankshaft and Needle Driving Connecting Rod Assembly, for	
		Styles 39800 AA and AB1	
_	29477 MB	Crankshaft and Needle Driving Connecting Rod Assembly, for	
		all Styles except 39800 AA and AB 1	
19	39852 A	Needle Driving Connecting Rod Assembly 1	
20	77	Screw 1	
21	22587 M	Screw 2	
22	39516-625	Needle Bearing, $.0625$ inch $(1.588 \text{ mm})$ diameter $ 28$	
_	39516-626	Needle Bearing, $.0626$ inch $(1.590 \text{ mm})$ diameter $ 28$	
_	39516-627	Needle Bearing, .0627 inch (1.593 mm) diameter $ -$ 28	
23	30-106 B1	k. Wood Plug, birch 1	
24	51-228 B1	k. Vent Plug 1	
25	39541 A	Feed Driving Eccentric Key 1	
26	C067 E	Cork Plug 1	
27	258	Nut1	
28	39890 E	Split Bearing and Oil Pump 1	
29	97 A	Screw, for split bearing and oil pump2	
30	39691	Crankshaft Counterweight, right1	
31	39593 J	Oil Pump Tube	
32	22747 B	Screw, for crankshaft counterweight4	
33	39591 K	Crankshaft Counterweight, left 1	



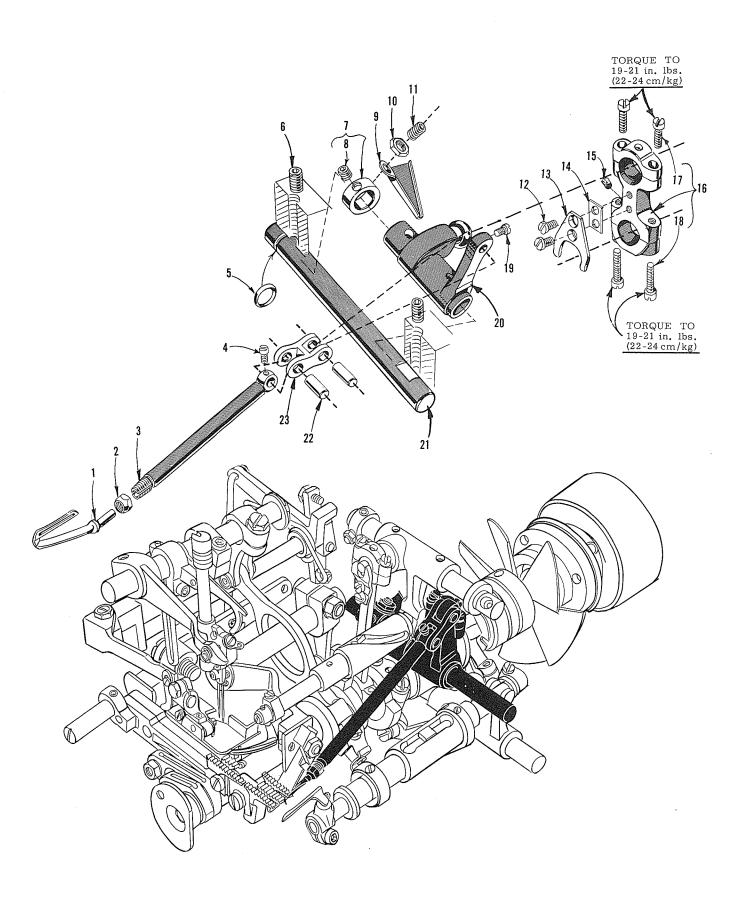
# FEED DRIVE MECHANISM

Ref			
No	· No.		Amt.
	-	<u>Description</u>	
1	20026 11		Req.
	39836 K	Feed Drive Rock Shaft Differential Feed Seement Sliding Plack, Turkey Wall	
2	39536 AY-247	Differential Read Scomer Clair	1
_	39536 AY-248		
		Differential Feed Segment Sliding Block, marked "L", .248 inch (6.274 mm) Differential Feed Segment Sliding Block, marked "L", .248 inch (6.299 mm)	- 1
	39536 AY-249	Differential Feed Segment Sliding Block, marked "M", .246 inch (6.299 mm)  Set Screw, for differential feed segment sliding like (6.325 mm)	- 1
3	22733		
4	39536 AR		
	39836 T	Differential Feed Drive Segment, for Style 39800 AT	- 1
5	80557	Washer for differential facility is 19000 AI	- 1
6	22852 A		
7	62244 A		
8	35751 G	Collar, for feed drive rock shaft	- 2
9	22572 В		
10	51236 A		
11	39536 AU	Differential Feed Drive Connecting Rod	- 1
12	77	Screen for discounting rod-	_ 1
13	39536 AL		
14			
	40-139	Washer, for differential food drive land	- 1
15	22852 A	Washer, for differential feed drive lever	_ 1
16	39540 E		
_			
	39540 F	Differential Feed Eccentric, for all Styles except 39800 AA and AB	- 1
17	22894 AA	Spot Screw for different to all Styles except 39800 AA and AB	1
18	39834 D		
19	· · · · · <del>-</del>		
	22569 G		
20	39536 E		
21	39536 BU		
22			
	22760 E		
23	39536 BA	Differential Feed Control Link	_ 1
24	39536 BB		
25	39536 AX		
26	61248 G	Collar, for feed control shaft	- 1
27	89		
28	39536 AT		
29	22652 A-6	Screw, for differential feed control lever	- 1
30	41071 G		
31	39536 СН		
32	39536 CJ	Main Feed Return Spring	- 1
33	39836 M		
34	22652 A-8		
35	39836 P	Stitch Indicator Plate, for all Styles except 39800 AT	- 1
35 A	39836 S		
35 B	22789 C	Stitch Indicator Plate, for Style 39800 AT	- 1
		Stop Screw	- 1
35 C	89–64	Plug	- 1
35 D	22565 C	Plug	1
36	22517	Set Screw	. 1
37		Screw, for stitch indicator plates	· 1
	39836 R	Stitch Indicator Pointer	. 1
38	93	Screw for chitch into	. 1
39	39836 L	Screw, for stitch indicator pointer	
40			
	660–466	"E" Ring, for feed control shaft	. 1
41	40-144	Washer, for feed control shaft	. 1
42	92201	Phase, in feed control shaft	1
43		Pressure Plug Screw	Ţ
	39536 CA	Pressure Plug	1
44	39836 N	Stitch Regulating Congress	1
45	51-392 Blk		î
46	22894 J		
		Screw, for feed leveling pin	1
47	39835 в	Feed Leveling Pin	1
48	39835 C		
49	22894 บ		
50		Screw, for feed leveling lever	1
	39534	Main Feed Bar	1
51	39535 J	Feed Bar Guide Block	1
52	39834 C		
-	39834 E		
53	39535 N		
54	22894 Ј	Screw for food adjusts	1
55	39536 BE		
56			
	39836 J		
57	39536 BU		
58	39536 E		
59		Nut, for main feed bar driving stud	T
	39868 R	401 Looper Thread Take-up	1
60	258	401 Looper Thread Take-up	1
61	39540 B-8		1
	20512	AW, AX, AY, VAN, VAW, VAX and VAY	
	39540 B-9	Main Feed Driving Eccentric for Children 20000	2
-	39540 B-10		2
	10		
	005/5		
-	39540 B-11		2
62	39838		
63			
	39536 BE		
64		Differential Feed Dog (See Pages 40 51)	1
65	93		
66	-		
	00.		
67	93 A	Screw, for main feed dog	Ĺ
		, and the dogs	
			-



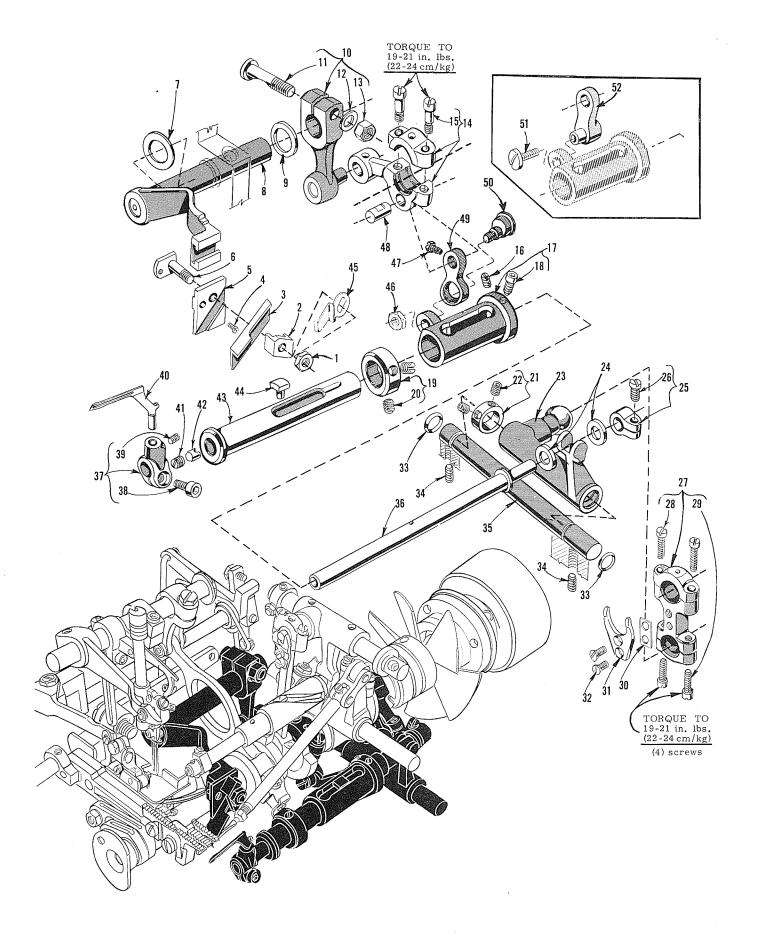
# NEEDLE DRIVE MECHANISM AND TAKE-UPS

Ref.	Part		Amt.
Ņo.	No.	Description	Req.
1	39852 J	Needle Guide Bar	
2	22733	Screw, for needle guide bar	1
3	CL21	Pipe Cleaner (oil wick)	1
4	22894 C	Set Screw	1
5	22894 L	Spot Screw	1
6	39852 C	Needle Lever Roller Pin	1
7	WO-3	Wool Yarn as requ	
8	660-220	"O" Ring, for needle guide bar	1
9	660-416	Retaining Ring, for needle lever roller pin	2
10	39852	Needle Lever	1
11	22852 C	Screw, for needle lever	1
12	40-139	Washer, for needle lever	1
13	39863 C	Lower Looper Thread Take-up Wire	2
14	39852 E	Needle Lever Drive Shaft	1
15	39573 A	Thrust Washer	
16	660-442	Retaining Ring, for needle lever drive shaft	
17	39852 D	Needle Drive Lever	1
18	22852 C	Screw, for needle drive lever	
19	40-139	Washer, for needle drive lever	1
20	51236 A	Link Pin, for needle drive lever	1
21		Wool Yarn as requ	ا المصمد
22	WO-3	±	
	39843 D	Needle Lever Drive Shaft Thrust Clamp Collar	
23	22652 B-10	Screw, for thrust clamp collar	1
24	22588 A	Screw, for needle thread cam pull-off	1
25	39863 D	503 Needle Thread Cam Pull-off	
26	39863 J	401 Needle Thread Cam Pull-off	
27	39863	Lower Looper Thread Take-up Lever	1
28	22572 B	Screw, for take-up lever	Ţ
29	22564 D	Screw, for take-up lever wire	4
30	39852 F-5	Needle Head, marked "AV", for No. 5 1/8 gauge, all	
		Styles	1
-	39852 F-8	Needle Head, marked "BN", for No. 8 3/16 gauge, all	
		Styles	1
_	39852 F-12	Needle Head, marked "AW", for No. 12 3/16 gauge, for	
		Styles 39800 AA, AB, AW, AX, AY, VAW, VAX and VAY	1
-	39852 FA-12	Needle Head, marked "AAW", for No. 12 3/16 gauge, for	
		Styles 39800 AL, AN, AP, AQ, AT, VAL and VAN	1
31	22784 L	Screw, for top needle head eyelet	1
32	39852 N	Needle Head Eyelet, top	1
33	28 C	Screw, for needles	2
34	39852 K-5	Needle Head Eyelet, for No. 39852 F-5	1
	39852 K-8	Needle Head Eyelet, for No. 39852 F-8	1
	39852 K-12	Needle Head Eyelet, for Nos. 39852 F-12 and	-
	37032 K 12	39852 FA-12	1
35	22738 В	Screw, for Nos. 39852 F-5 and 39852 F-8	1
<i>_</i>	605	Screw, for Nos. 39852 F-12 and 39852 FA-12	1
36	120 GS	Needle, for all Styles except 39800 AP, AQ, AX, AY,	1
J.0	14U GO		1
	120 040	VAX and VAY 12 3/16 gauge machines	T
	120 GAS	Needle, for Styles 39800 AP, AQ, AX, AY, VAX and	1
2.7	2050/ 37	VAY 12 3/16 gauge machines	1
37	39594 N	Oil Splasher	1
38	87 U	Screw, for oil splasher	1



## LOWELL LOOPER DRIVING MECHANISM

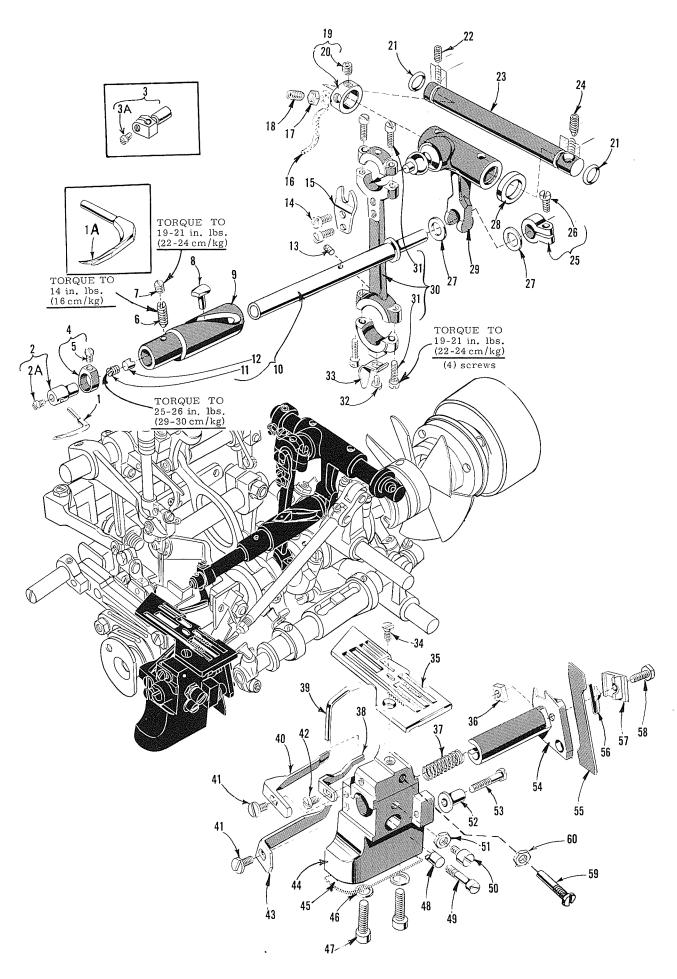
Ref.	Part	Amt.
No.	No.	Description Req.
1	39808 D	Lower Looper, marked "ACZ"
2	39151	Nut, for lower looper bar 1
3	52344	Lower Looper Bar 1
4	77	Screw, for connecting link pin 1
5	660–206	"O" Ring, for lower looper bar driving lever shaft 1
6	22894 AE	Screw, for lower looper bar driving lever shaft 2
7	482 C	Lower Looper Shaft Collar 1
8	22894 C	Screw, for collar 2
9	39894 C	Oil Pump Oiler 1
10	12982	Nut, for oil pump oiler screw 1
11	22894 J	Screw, for oil pump oiler 1
12	538	Screw, for ball joint guide fork 2
13	39644 X	Ball Joint Guide Fork 1
14	39644 R-2	Shim, for ball joint guide fork, .002 inch (.051 mm) thick as required
	39644 R-5	Shim, for ball joint guide fork, .005 inch (.127 mm) thick as required
15	666-255	Felt Plug, for lower looper drive lever connecting rod 1
16	39644 F	Lower Looper Drive Lever Connecting Rod 1
17	22729 D	Screw, for connecting rod 2
18	22729 E	Screw, for connecting rod 2
19	77	Screw, for connecting link pin1
20	39844	Lower Looper Bar Driving Lever 1
21	39844 B	Lower Looper Bar Driving Lever Shaft 1
22	39544 D	Lower Looper Bar Connecting Link Pin 2
23	39544 В	Lower Looper Bar Connecting Link 1



#### UPPER KNIFE AND 401 LOOPER DRIVING MECHANISM

Ref. No.	Part No.	Description	Amt. Req.
110 :		*** The state of t	
1	9937	Nut, for upper knife clamp stud	1
2	39871	Upper Knife Clamp	1
3	39870	Upper Knife	1
4	22738	Screw, for upper knife clamp stud	1
5	39572 A	Upper Knife Holder Block	1
6	39571 C	Upper Knife Clamp Stud	1
7	39873 В	Upper Knife Driving Arm Thrust Washer	<u>1</u>
8	39873	Upper Knife Driving Arm	1
9	39573 A	Upper Knife Driving Arm Thrust Washer	1
10	39573 E	Upper Knife Driving Lever	I
11	55235 D	Locking Stud, for driving lever	I
12	6042 A	Washer, for driving lever	1
13	55235 E	Nut, for driving lever	1
14	39673	Upper Knife Driving Lever Connecting Rod Screw, for connecting rod	1
15	22587 E	Screw, for connecting rod	
16	22565 C	Set Screw, for bushing and cam guide	1
17 —	39644 K	Bushing and Cam Guide, for Styles 39800 AA and AB Bushing and Cam Guide, for all Styles except 39800 AA and	
18	39644 V 22729 M	Screw, for bushing and cam guide	
19	39644 P	Thrust Collar	1
20	98	Screw, for thrust collar	2
21	482 C	Looper Drive Lever Shaft Collar	1
22	22894 C	Screw, for collar	2
23	39644	Looper Drive Lever	1
24	39543 P	Looper Bar Thrust Washer	2
25	39543 M	Clamp Collar	1
26	22562 A	Screw, for clamp collar	1
27	39644 U	Looper Drive Lever Auxiliary Connecting Rod	1
28	22729 E	Screw, for connecting rod	2
29	22729 D	Screw, for connecting rod	2
30	39644 R-2	Shim, for ball joint guide fork, .002 inch (.051 mm)	
-	39644 R-5	thickas results for ball joint guide fork, .005 inch (.127 mm) thickas results for the control of th	-
31	39644 X	Ball Joint Guide Fork	1
32	538	Screw, for ball joint guide fork	2
33	660-206	"O" Ring, for looper drive lever shaft	2
34	22894 AE	Screw, for looper drive lever shaft	2
35	39644 N	Looper Drive Lever Shaft	1
36	39644 A	Looper Bar (401 stitch)	1
37	39844 A	Looper Holder, for 401 stitch looper	1
38	22652 A-6	Screw. for looper holder	1
39	22894 AF	Screw. for looper	1
40	39808	Looper, marked "CY", for 401 stitch	1
41	22503 F	Screw, for cam follower locking clamp	1
42	39543 E	Cam Follower Locking Clamp	<b></b> 1
43	39644 W	Looper Bar Sleeve	1
44	39644 L	Cam Follower	1
45	39571 B	Upper Knife Chain Guard	1
46	39536 E	Nut, for looper avoid eccentric stud	1
47	22781	Screw, for looper avoid link pin	1
48	41336 C	Looper Avoid Link Pin	1
49	39844 C	Looper Avoid Link	1
50	39844 D	Looper Avoid Eccentric Stud	1
*51	22775	Screw, for looper avoid link	<u>l</u>
*52	39644 M	Looper Avoid Link	1

 $<sup>\</sup>star$  Used on earlier model machines, in place of Ref. Nos. 46, 49 and 50.

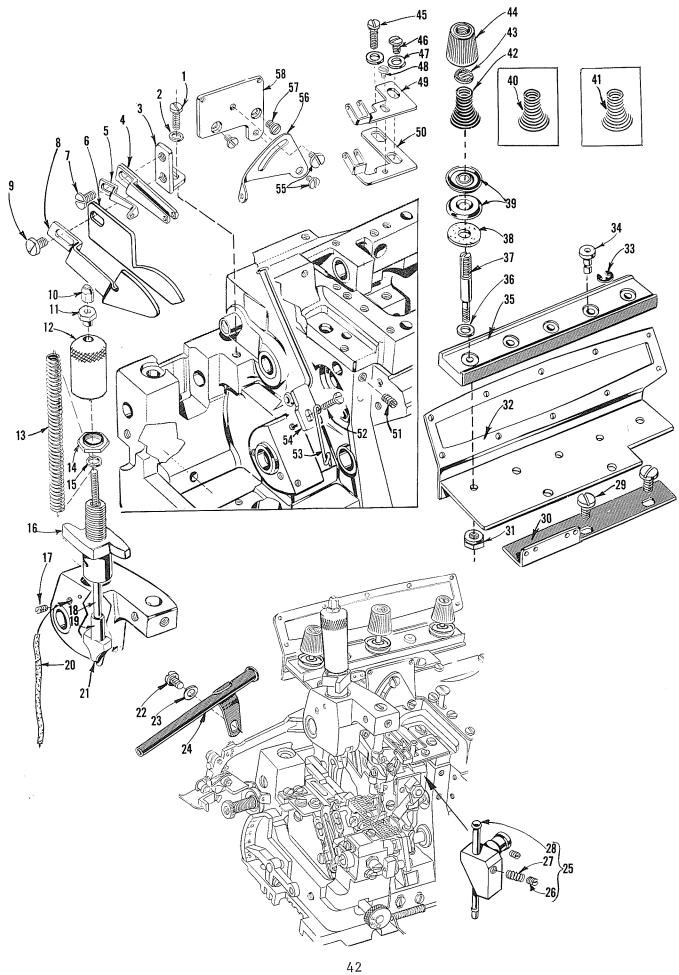


Ref.	Part		Amt.
No.	No.	Description	Req.
# 1	39808 A	Upper Looper, marked "DA", for Style 39800 AB	
## -	39808 C	VAN VAO VAW. VAY	- 1
1 A	39860	Upper Spreader, marked "H", for all Styles except 39800 AB, AQ, AY Upper Looper or Spreader Holder, marked "J"	· - 1
2 2A	39543 22564 G	Carry for upper looper or epreader	1
**3	39843 H	We was I come or Chronder Wolder	1
3A	22768 B	Screw, for upper looper or spreader	· - 1
4 5	39543 A 22 KH	Serous for upper looper or spreader holder collar	1
6	22565 R	Coron for buching and cam guide	· 1
7 8	. 1025 L	Lock Screw, for bushing and cam guide screw	I
* 9	39543 T 39543 S	Upper Looper or Spreader Drive Shaft Bushing and Cam Guide	- <b>-</b> 1
*10	39843 A	Upper Leaper or Spreader Drive Shaft	1
11	22503 F	Screw, for cam follower locking clamp	1 1
12 13	39543 E 666-255	Felt Plug for upper looper or spreader drive lever connecting rod	- <b>-</b> 1
14	97	Caron for guide fork	2
15	39544 Ј	Guide Fork	I equired
16 17	WO-3 12982	Not	1
18	22894 J	Committee	1
19	482 C	Upper Looper or Spreader Drive Lever Shaft Collar	l 2
20 21	22894 C 660-206	"O" Ring for upper looper or spreader drive lever shaft	2
22	22894 C	Set Screw for upper looper or spreader drive lever shaft	i
23	39843 C	Upper Looper or Spreader Drive Lever Shaft	i
24 25	22894 L	Spot Screw, for upper looper or spreader drive lever shaft Clamp Collar	- <del>-</del> 1
26	39543 M 22562 A	Screw. for clamp collar	1
27	39843 E	Thrust Washer, for upper looper or spreader drive shaft, for all Styles except 39800 AA and AB	
-	39543 P	Thrust Washer, for upper looper or spreader drive shaft, for Styles 39800	AA 2
28	39843 В	Upper Looper or Spreader Drive Lever Thrust Washer	l
29	39543 W	Upper Looper or Spreader Drive Lever	1
30 31	39843 22729 D	Upper Looper or Spreader Drive Lever Connecting Rod Screw, for connecting rod	4
32	87 U	Scrow for all enlasher	- <del>-</del> 1
33	39594 N	Oil Splasher	1
34	22524	Throat Dista (See pages 49 51)	i
35 36	39650 B	Tower Wrife Clamp Screw Mut	I
37	39550 E	Voite Holder Chring	1
38 39	39625 D 39825 C	Needle Guard, front, for 401 stitch needle Needle Guard, rear, for 401 stitch needle	ı
40	39825 B	No-dia Guard maan for $503$ or $504$ stitch needle $         -$	1
41	22585 A	Screw, for 503 or 504 stitch needle guard Screw, for 401 stitch front needle guard	2
42 43	90 39825 D	Noodlo Cuard front for $503$ or $504$ stitch needle	ı
44	39880 E	Throat Plate and Lower Knife Support Bracket	I
45	39880 J	chim for throat plate cupport bracket as r	eguirea
46	39580 F	Washer, for support bracket screw	2
47 48	22653 B-12 39543 E	Needle Coard Looking Clamp	1
49	88 F	Coron for models quard locking clamp	1
50	22892 B	Locking Screw, for lower knife holder	l
51 52	14077 39550 C	Towar Vnife Holder Locating Stud	<u>-</u> 1
53	22729 B	Corose for lower knife holder locating stud	1
54	39650 C	Lower Knife Holder	1 1
55 56	39849 39550 M	I was Voite Clamp Spring	1
57	39550 Z	Yester Vesto Clamp	1
58	22588 J	Screw, for lower knife clamp	1
59 60	39883 41071 G	Screw, for stabilizing 401 stitch front needle guard	1
00	710/1 G	nuc, rocang	

<sup>#</sup> Upper Looper 39808 C is recommended for use with needle size 110/044 and larger, on Style 39800 AB.
## Upper Looper 39808 A is recommended for use with needle size 100/040 and smaller, on Styles 39800 AL,
AN, AQ, AT, AW, AY, VAL, VAN, VAQ, VAW, VAX, VAY.

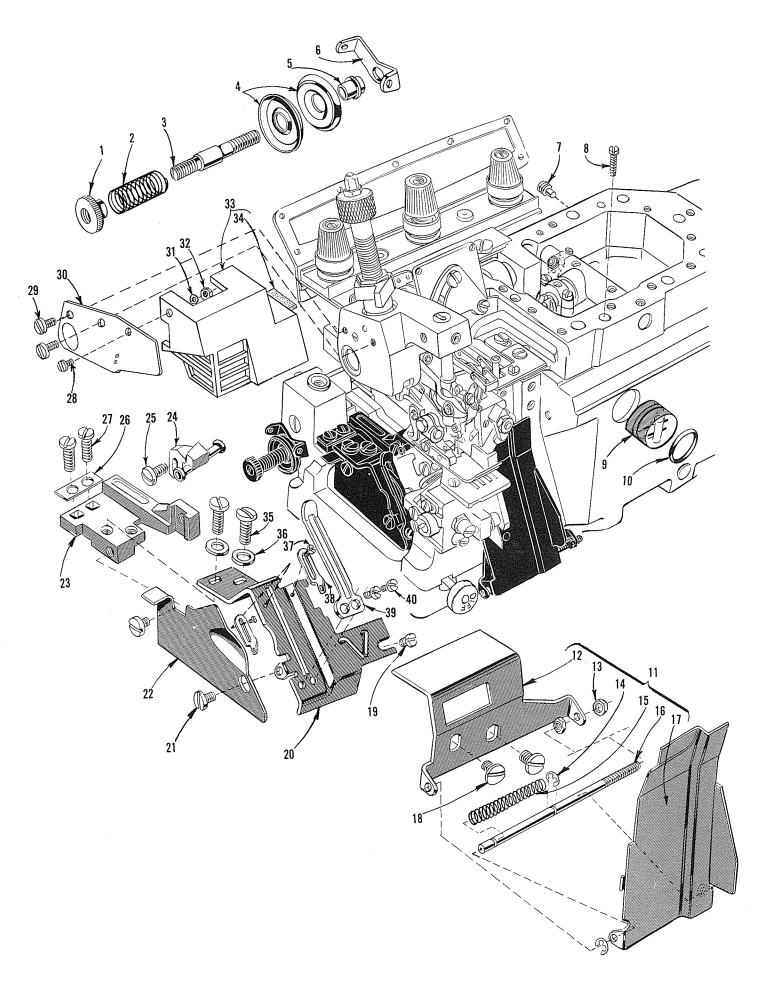
\* Replacement with assembly No. 29126 EK is recommended instead of the individual parts.

<sup>\*\*</sup> Upper Looper or Spreader Holder No. 39843 H is used on later model machines.



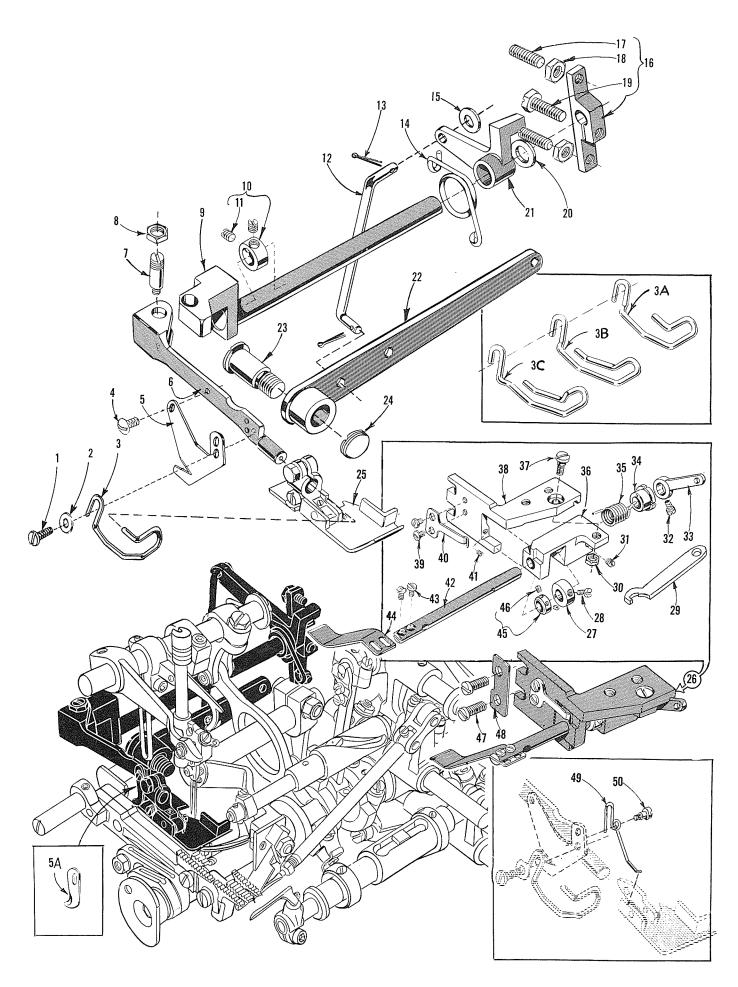
### THREAD TENSIONS, EYELETS AND PRESSER SPRING PARTS

Ref. No.	Part No.	Description	Amt. Req.
	00560 0		
1	22569 B	Screw, for eyelet and fabric guard mounting bracket	- 1 - 1
2 3	53634 C 39868 D	Upper Looper Thread Eyelet and Fabric Guard Mounting Bracket	- 1
4	39568 L	Upper Looper Take-up Eyelet, on all Styles except 39800 AA, AP, AX	- 1
5	39568 E	Auxiliary Upper Looper Thread Eyelet, on all Styles except 39800 AA, AP, AX	
6	39868 X	Lower Looper Cast-off Blade	- 1
7	376 A	Screw, for upper looper take-up eyelet, on all Styles except 39800 AA, AP, AX	
8	39868 Y	Fabric Guard	- 1
9	376 A	Screw, for fabric guard	- 1
10	39557 В	Presser Spring Plunger Cap Nut	- 1
11	39857 L	Presser Spring Plunger Lock Nut	- 1
12 13	39857 N 39857 C	Presser Spring Plunger Adjusting Screw	- 1 - 1
7.2	39857 P	Presser Spring, light, on Styles 39800 AA, AB, AL, AN, AT, AW, VAL, VAN, VAW	- 1
14	51257 H	Lock Nut, for plunger adjusting screw	- 1
15	39857 E	Washer	- 1
16	39856 B	Presser Foot Release Lever	- 1
17	95	Screw, for oil system	- 1
18	39857 J	Presser Spring Plunger Stud	- 1
19	39857 M	Spacer	- 1
20 21	CL21	Pipe Cleaner (oil wick)	- 1 - 1
22	39857 A 22569 D	Screw, for thread tube	- 1 - 1
23	53634 C	Washer, for thread tube screw	- 1
24	39868 N	Thread Tube, for 401 looper thread	- 1
25	29477 MA	Upper Looper Thread Tube Assembly	- 1
26	22743	Screw. for thread tube tension spring	- 1
27	39568 J	Thread Tube Tension Spring	- 1
28	39568 P	Thread Tube	- 1
29	22548	Screw, for thread guide and mounting bracket	- 2
30 31	39892 В 39592 АН	Thread Guide, front	- 1 -3 or 4
32	39892 A-5	Tension Post Mounting Bracket	- 1
33	660-469	Retaining Ring, for tension post bar eyelet	- 1
34	39892 C	Tension Post Bar Eyelet	- 1
35	39592 AN	Tension Post Bar	- 1
36	8372 A	Washer, for thread tension post	
37	39592 AL	Thread Tension Post	
38	39592 AF	Tension Disc Felt	
39 40	39592 AD 39592 AR-2	Thread Tension Disc	
40	37372 AK2	VAN, VAQ, VAW, VAX, VAY	
41	39592 AR-4	Tension Spring, for 503 stitch looper on Styles 39800 AA, AP and AX	
-	39592 AR-4	Tension Spring, for 504 stitch needle on Styles 39800 AB, AQ and AY	
-	39592 AR-4	Tension Spring, for 504 stitch looper on Styles 39800 AB, AL, AN, AQ, AT, AW, AY, VAI	٠,
	20500 1- 5	VAN, VAQ, VAW, VAX, VAY	
42	39592 AR-5	Tension Spring, for 401 stitch needle	- 1
-	39592 AR-5	Tension Spring, for 504 stitch needle on Styles 39800 AL, AN, AT, AW, VAL, VAN, VAQ, VAW, VAX, VAY	1
43	39592 AK	Tension Spring Ferrule	- 1 -3 or 4
44	39592 Y	Upper Looper Tension Nut, black, for Styles 39800 AB, AL, AN, AQ, AT, AW, AY, VAL, VA	N.
		VAQ, VAW, VAY	- 1
-	39592 Z	Lower Looper Tension Nut, golden beige	- 1
-	39592 AA	Overedge Needle Tension Nut, green	- 1
- / -	39592 AC	401 Stitch Needle Tension Nut, red	- 1
45 46	22541 D 22569 C	Screw, for 401 stitch needle thread pull-off eyelet	
47	8372 A	Screw, for overedge needle thread pull-off eyelet	
48	22704	Screw, for 401 stitch needle thread pull-off eyelet	- 2 - 1
49	39863 K	401 Stitch Needle Thread Pull-off Eyelet	- 1
50	39863 L	Overedge Needle Thread Pull-off Eyelet	- 1
51	22565	Screw, for upper looper thread tube assembly	- 1
52	22585 R	Screw	
53	39868 H	Pigtail Eyelet, for 401 stitch looper thread	- 1
54 55	39868 Z	Thread Tube, for 503 or 504 stitch looper thread	- 1
55 56	HS24 C 39863 N	Screw, for adjustable needle thread eyelet	- 2
57	22564 J	Screw, for needle thread frame eyelet	- 1 - 2
58	39863 M	Needle Thread Frame Eyelet	- 1
		*	-



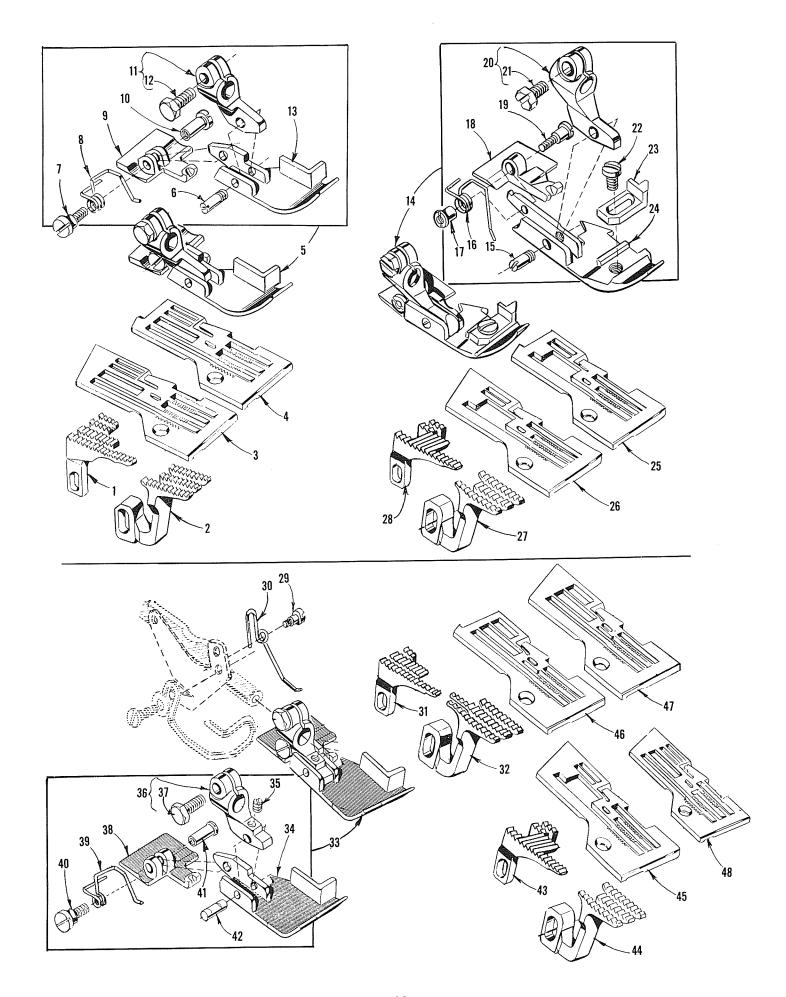
# 401 LOOPER TENSION PARTS, MISCELLANEOUS PLATES AND GUARDS

Ref.			۸ 4
No.	No.	Description	Amt. Req.
1	51292 C	401 Stitch Looper Tension Nut	-
2	51292 F-2	Tension Spring, for 401 looper	- 1
3	51292 G	Thread Tension Post	- Ţ
4	109	Thread Tension Disc	- 1
5	51292 A	Ferrule	- 2
6	51292 D	Tension Thread Eyelet	- 1
7	22571 E	Magnetic Oil Drain Plug	- 1
8	22569 K	Screw, for oil sight gauge	- Ţ
9	39893	Oil Sight Gauge	- 1
10	660-243	Oil Gauge Seal Ring	- 1
11	39878 E	Chip Guard Assembly, for all Styles except 39800 AT	- T
-	39878 L	Chip Guard Assembly, for Style 39800 AT	- 1
12	39878 F	Chip Guard Base	- 1
13	43443 Q	Nut, for hinge pin	- 1
14	660-210	Retaining Ring	- 2
15	39158 U	Spring	- 2
16	39878 C	Hinge Pin	- <u>1</u>
17	39878 G	Chip Guard Cover, for No. 39878 E	- 1
_	39878 К	Chip Guard Cover, for No. 39878 L	- I
18	22569 D	Screw, for chip guard	- T
19	22585	Screw, for cast-off support plate	- Z
20	39868 В	Cast-off Support Plate	1
21	22585 C	Screw, for support plate end cover	- 1
22	39868 М	Support Plate End Cover	7
23	39835 D	Main Feed Bar Guide, left, for machines w/o "Air-Klipp"	_ 1
24	39880 F	Throat Plate Support, rear, for machines w/o "Air-Klipp"	_ 1
25	93 A	screw, for rear throat plate support, for machines w/o	
26	39843 F	"Air-Klipp"	- 1
27	22541 B	Plate Washer, for main feed bar guide screw	- 1
28	376 A	Screw, for main feed bar guide	- 2
29	25 S	Screw, for finger protector	- 1
30	21695 AB	Screw, for finger protector plate	- 2
31	39843 G	Finger Protector Plate	- 1
32	12934 A	Washer	- 1
33	21695 AA	Nut, for finger protector screw	- 1
34	21695 AM	Finger Protector Felt Pad	- 1
35	22541 B	Screw for east off superst also	- 1
36	8372 A	Screw, for cast-off support plate	- 2
37	73 A	Washer, for cast-off support plate screw	- 2
38	52958 D	Screw, for looper thread take-up eyelet	- 2
39	39868 J	Looper Thread Take-up Eyelet	- 2
40	77 A	Cast-off Wire	- 1
	11	Screw, for cast-off wire	- 2



#### PRESSURE PLATE ASSEMBLY AND FOOT LIFTER PARTS

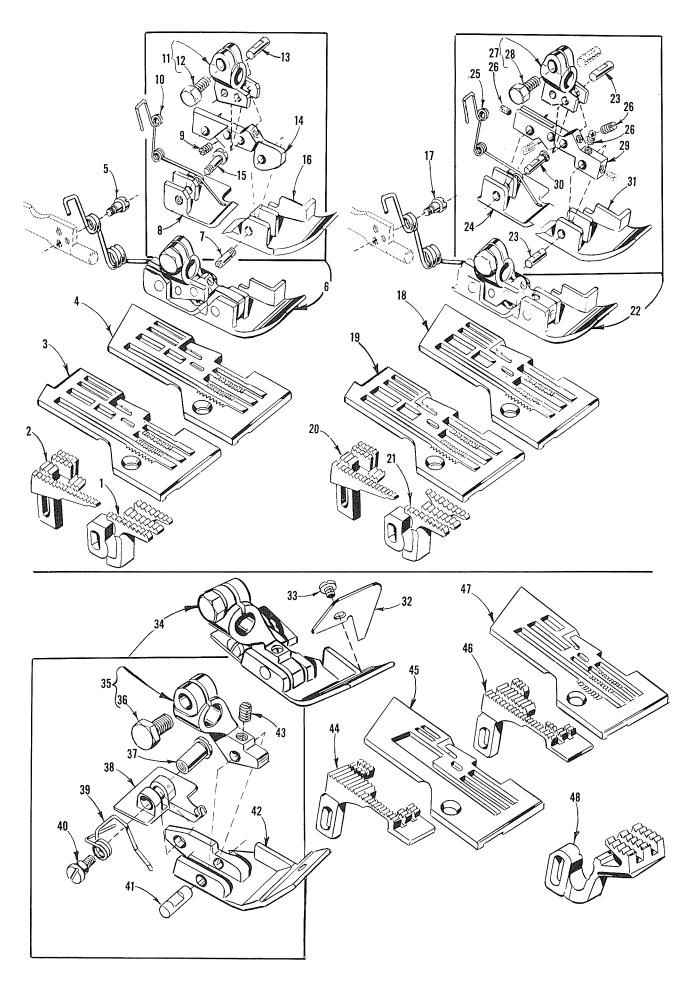
Ref.	Part		Amt.				
No.	No.	Description					
1	22797 A	Screw, for chain cutting knife and finger guard	- 1				
2	53678 N	Washer					
3	99682 M	Finger Guard, for all Styles except 39800 AT, AW, AX, AY, VAW -	- 1				
3A	21695 AK	Finger Guard, for Styles 39800 AX, AY	- 1				
3B	21695 AL	Finger Guard, for Styles 39800 AW, VAW					
3C	21695 AN	Finger Guard, for Style 39800 AT					
4	22547 A	Screw, for chain cutting knife No. 39856 C					
5	39856 C	Chain Cutting Knife, for all Styles except 39800 AL, AT, VAL -					
5A	39656 A	Chain Cutting Knife, marked "AC", for Styles 39800 AL, AT, VAL					
6	39656 В	Presser Arm, for No. 12 3/16 gauge, on Styles 39800 AA, AB, AL					
-	39856 D	Presser Arm, for No. 5 1/8 gauge, on Styles 39800 AA, AB; all gauges on Styles 39800 AN, AP, AQ, AT, AW, AX, AY, VAN, VAQ, VAW, VAX, VAY	-				
7	22791 Н	Screw, for presser arm	_ 1				
8	258 A	Nut, for presser arm screw					
9	39855 C	Foot Lifter Lever Shaft					
10	12865	Thrust Collar, for foot lifter lever shaft					
11	88	Screw, for thrust collar					
12	39857 Н	Foot Lifter Lever Connecting Link					
13	660-142	Cotter Pin, for connecting link	_ 2				
14	39855 A	Foot Lifter Lever Spring	- 2 - 1				
15	8372 A	Washer, for connecting link	_ 1				
16	39555 C	Foot Lifter Lever Arm					
17	22597 E	Screw, for lever arm					
18	12538	Locknut, for lever arm screw					
19	627	Screw, for lever arm					
20	41332 J	Washer					
21	39855 в	Foot Lifter Intermediate Lever					
22	39855	Foot Lifter Lever	_				
23	22566 В	Screw, for foot lifter lever					
24	22571 D	Plug Screw, for foot lifter hole					
25	3.1	Presser Foot (See pages 49,51)					
26	29480 PD	Pressure Plate Assembly, for Style 39800 AT, all gauges					
27	39831 C	Actuating Collar					
28	22768	Screw	_ 1				
29	21388 Y	Spanner Wrench	_				
30	12934 A	Nut	_ 1				
31	22743	Screw	_ 1				
32	77 A	Screw	1				
33	39831 G	Operating Lever	1				
34	39831 D	Shaft Collar					
35	39831 E	Tension Spring					
36	39831 B	Shaft Bracket					
37	22758 J	Screw					
38	39831 A	Mounting Bracket					
39	22561	Screw					
40	39831 F	Spring					
41	73 C	Screw					
42	39831	Pressure Plate Shaft	-				
43	22768	Screw					
44	39531	Pressure Plate					
45	39536 CL	Collar					
46	1096	Screw	-				
47	22569 C	Screw					
48	39531 Z	Washer Plate					
49	39830 AL	Spring, for presser foot bottom for all Styles except	- I				
50	39830 AJ	39800 AW, AX, AY, VAW, VAX, VAY	- 1 - 1				



#### FEED DOGS, THROAT PLATES, PRESSER FEET

Ref. No.	Part No.	Description	Amt. Req.
1 -	39805 A-8 3/16 39805 A-12 3/16	Main Feed Dog, marked "QE", 16 t.p.i., for Styles 39800 AN, VAN Main Feed Dog, marked "FU", 12 t.p.i., for No. 12 3/16 gauge on Styles 39800 AP, AQ	
* _	39805 B-12 3/16	Main Feed Dog, marked "QJ", 16 t.p.i., for No. 12 3/16 gauge on Styles 39800 AP, AQ	
2	39826 B	Differential Feed Dog, marked "QG", 16 t.p.i., for Styles 39800 AN, VAN	- 1
3	39828 A-8 3/16	Throat Plate, marked "DP-8 3/16", for No. 8 3/16 gauge on Style 39800 AN	
-	39828 L-12 3/16	Throat Plate, marked "DT-12 3/16", for No. 12 3/16 gauge on Style 39800 AN	
4	39828 B-8 3/16	Throat Plate, marked "DQ-8 3/16", for No. 8 3/16 gauge on Style 39800 VAN	
-	39828 M-12 3/16	Throat Plate, marked "DU-12 3/16", for No. 12 3/16 gauge on Style 39800 VAN	
5	39820 A-8 3/16	Presser Foot, for No. 8 3/16 gauge on Styles 39800 AN, VAN	- l
-	39820 F-12 3/16	Presser Foot, for No. 12 3/16 gauge on Styles 39800 AN, VAN	- 1
6 7	22799 AF 39830 F	Hinge Screw, for presser foot bottom Hinge Screw, for needle hole section	- 1 - 1
8	39830 AB	Spring, for needle hole section	<b>-</b> 1
9	39830 Y	Needle Hole Section, marked "BG", for No. 8 3/16 gauge	- 1
	39830 AE	Needle Hole Section, marked "BH", for No. 12 3/16 gauge	- 1
10	39830 Ј	Locknut Screw	
11	39830 Т	Presser Foot Shank, marked "R", for No. 8 3/16 gauge	- 1
-	39830 AC	Presser Foot Shank, marked "T", for No. 12 3/16 gauge	- 1
12	22588 A	Clamp Screw	
13	39830 W	Presser Foot Bottom, marked "CF", for No. 8 3/16 gauge	- l
_	39830 AD	Presser Foot Bottom, marked "CG", for No. 12 3/16 gauge	- I
14	39620 G-12 3/16	Presser Foot, for Styles 39800 AL, VAL	- 1
15 16	22799 Y 39630 AB	Spring, for needle hole section	_ 1
17	39630 L	Locknut Screw	- 1
18	39630 V	Needle Hole Section, marked "AU"	- 1
19	39630 M	Hinge Screw, for needle hole section	- 1
20	39630 X	Presser Foot Shank, marked "F"	- 1
21	22781	Clamp Screw	- 1
22	22768 В	Screw, for finger guard	- 1
23	39678 Z	Finger Guard, marked "C"	- I
24 25	39630 T-12 3/16	Throat Plate, marked "DM", for Style 39800 VAL	_ 1
26	39828 K-12 3/16 39828 J-12 3/16	Throat Plate, marked "DL", for Style 39800 AL	- 1
27	39626 G	Differential Feed Dog, marked "BU", 16 t.p.i., for No. 12 3/16 gauge on Styles 39800 AA, AB, AL, VAL	
28	39605 G-12 3/16	Main Feed Dog, marked "DY-12 3/16", 16 t.p.i., for No. 12 3/16 gauge on Styles 39800 AA, AB, AL, VAL	- 1
29	39830 AJ	Shoulder Screw, for No. 39830 AL	- 1
30	39830 AL	Spring, for presser foot bottom, for Styles 39800 AA, AB, AP, AQ, VAQ	1
31	39805 G-5 1/8	Main Feed Dog, marked "QC", 16 t.p.i., for No. 5 1/8 gauge on Styles 39800 AA, AB, AP, AQ, VAQ	- 1
32 33	39626 D 39820 A-12 3/16	39800 AA, AB, AP, AQ, VAQ	
J.J	39820 A=12 3/10 39820 A=5 1/8	Presser Foot, for No. 5 1/8 gauge on Styles 39800 AA, AB, AP, AQ, VAQ	
34	39830 C	Presser Foot Bottom, marked "BZ-12 3/16", for No. 12 3/16 gauge	- 1
· <del></del>	39830 К	Presser Foot Bottom, marked "CC", for No. 5 1/8 gauge	- 1
35	22733	Set Screw, for presser foot bottom hinge pin	- 1
36	39830	Presser Foot Shank, marked "M", for No. 12 3/16 gauge	
- 27	39830 G	Presser Foot Shank, marked "N", for No. 5 1/8 gauge	- I
37 38	22588 A 39830 A	Needle Hole Section, marked "BC", for No. 12 3/16 gauge	
-	39830 H	Needle Hole Section, marked "BD", for No. 5 1/8 gauge	- 1
39	39830 S	Spring, for needle hole section	- 1
40	39830 F	Hinge Screw, for needle hole section	- 1
41	39830 B	Locknut Screw, for No. 12 3/16 gauge needle hole section	- 1
_	39830 J	Locknut Screw, for No. 5 1/8 gauge needle hole section	- 1
42	39830 E	Hinge Pin, for presser foot bottom	- 1
43 44	39605 G-12 3/16	Main Feed Dog, marked "DY-12 3/16", 16 t.p.i., for No. 12 3/16 gauge on Styles 39800 AA, AB, AL, VAL	- 1
*	39826 A 39826 C	39800 AP, AQ, AX, VAY	- 1
		398000 AP, AQ, AX, AY	- 1
 . E	39626 G	Differential Feed Dog, marked "BU", 16 t.p.i., for No. 12 3/16 gauge on Styles 39800 AA, AB	- 1
45	39828 J-12 3/16	Throat Plate, marked "DL-12 3/16", for No. 12 3/16 gauge on Styles 39800  AA, AB	- 1
46 47	39824 H-5 1/8	Throat Plate, marked "EB", for No. 5 1/8 gauge on Style 39800 VAQ Throat Plate, marked "DH-5 1/8", for No. 5 1/8 gauge on Styles 39800 AA, AB,	- 1
	39828 G-5 1/8	AP, AQ	
48	39828 A-12 3/16	Throat Plate, marked "CN-12 3/16", for No. 12 3/16 gauge on Styles 39800 AP, AQ -	- I

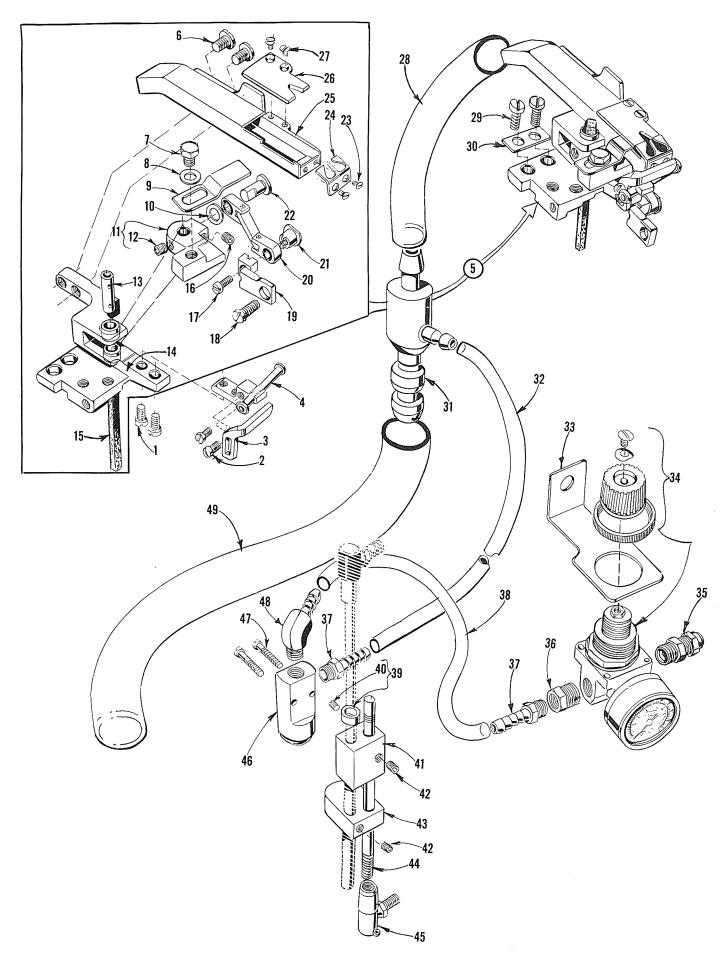
<sup>\*</sup> Available as an extra send and charge item.



#### FEED DOGS, THROAT PLATES, PRESSER FEET

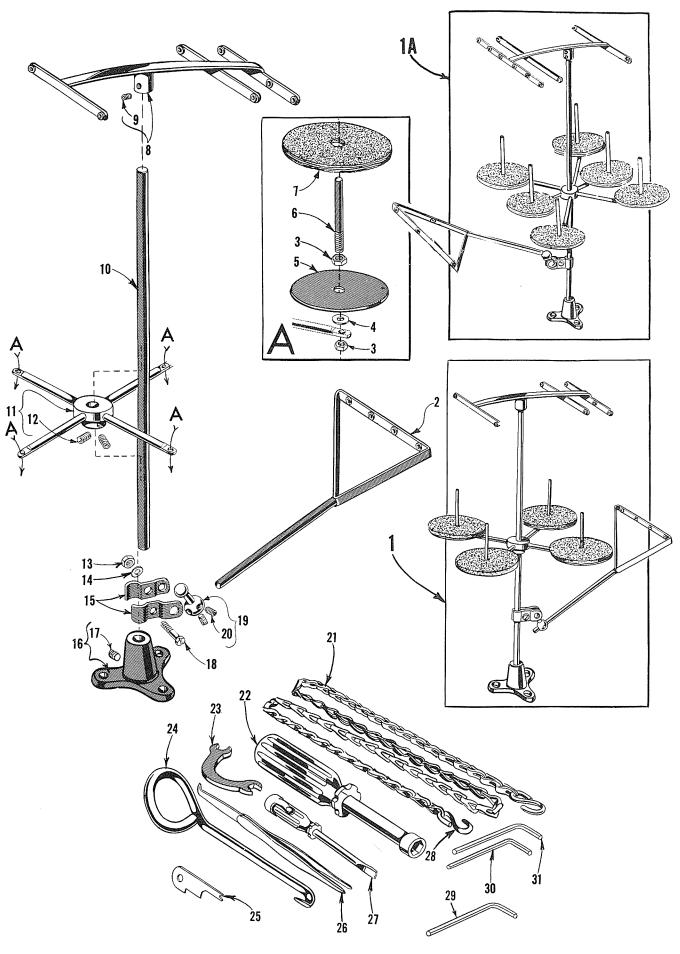
1   39826   3     1   1   1   1   1   2   39826   8   3   6   1   1   1   1   2   39828   8   3   1   6   1   1   1   2   39828   8   3   3   6   1   1   1   2   39828   8   3   3   6   3   3   3   8   8   3   3   6   3   3   6   3   3   6   3   3	Ref.	Part No.	Description	Amt. Req.
2   39800	1	39826 В	Differential Feed Dog. marked "OG", 16 t.p.i., for Styles 39800 AW VAW	_ 1
398.08   1-8 3/16   Throad Plate, marked "DS", for No. 8 3/16 gauge on Style 39800 VAN   1   1   1   1   1   1   1   1   1			Main Feed Dog, marked "QF", 16 t.p.i., for Styles 39800 AW, VAW	- 1
19928   1-19   2716   Throat Place, marked "NR", for No. 12 3/16 gauge on Style 19800 AM   1   19930 AI   Shoulder Screw, for fractor foot   19930 AI   Shoulder Screw, for fractor foot   19930 AF   199300 AF   199300 AF   199300 AF   199300 AF   199300 AF   199300 AF   199		• .	Throat Plate, marked "DS", for No. 8 3/16 gauge on Style 39800 VAW	- 1
Section		· ·	Throat Plate, marked "DW", for No. 12 3/16 gauge on Style 39800 VAW	- 1
19830 A3			Throat Plate marked "DV" for No. 12 3/16 gauge on Style 39800 AV	- l
39820 G-12 3/16   Presser Foot, for No. 12 3/16 gauge on Styles 39800 AM, VAW	5		Shoulder Screw, for tractor foot	- 1 - 1
22799 AF	6	39820 E-8 3/16		-
39830 X				
39830 AC				
22733   Set Screw	-			
10   39830 AN	9			
12   22588 A   Clamp Server   1   1   39830 AT   Hings Pin	10		Tractor Foot Spring	- 1
22388 A			Presser Foot Shank, marked "S", for No. 8 3/16 gauge	- 1
19830 AT			Presser Foot Shank, marked "P", for No. 12 3/16 gauge	- 1
14   39830 Z				
15   39830 AA				
16   39830 V				
Presser Foot Bottom, marked "CR", for No. 12 3/16   1   1   1   1   1   1   1   1   1	16			
39828 R-12 3/16		39830 AF		
19   39828 F-12 3/16				
VAX, VAY   Name   Nam			Throat Plate, marked "DC", for No. 12 3/16 gauge on Styles 39800 AX, AY	- 1
AX, AY, VAX, VAY			VAX, VAY	- 1
3980 AP, AQ, AX, AY, VAX, VAY  239820 E-12 3/16  101fferential Feed Dog, marked "OH", 16 t.p.i., for No. 12 3/16 gauge on Styles 39800 AP, AQ, AX, AY, VAX, VAY		·	AX, AY, VAX, VAY	- 1
39800 E-12 3/16   Presser Foot, for No. 12 3/16 gauge on Styles 39800 AX, AY, VAX, VAY			39800 AP, AQ, AX, AY, VAX, VAY	- 1
39830 AT			39800 AP, AQ, AX, AY, VAX, VAY	
24   39830 N   Needle Hole Section, marked "BE"   1   1   2   39830 AH				
Tractor Foot Spring				
Set Screw				
27   39830 M				
39830 R		39830 M		
30				
31				-
32				
187 A				
39820 B-5 1/8 Presser Foot, for No. 5 1/8 gauge on Style 39800 AT	33		Screw, for presser foot chip guard	- 1
- 39820 B-12 3/16				
39830 G	-			
- 39830 T	_ 35		Presser Foot, for No. 12 3/16 gauge on Style 39800 AT	- 1
- 39830 AC				
Clamp Screw				
388 39830 H	36		Clamp Screw	- 1
- 39830 Y Needle Hole Section, marked "BC", for No. 8 3/16 gauge 1 39830 AE Needle Hole Section, marked "BH", for No. 12 3/16 gauge 1 39830 AB Spring				
Needle Hole Section, marked "BH", for No. 12 3/16 gauge				
39				
39830 F Screw				
41 39830 E Hinge Pin, for No. 5 1/8 gauge 1  - 22799 AF Hinge Screw, for Nos. 8 3/16 and 12 3/16 gauge 1  42 39830 AM Presser Foot Bottom, marked "CL", for No. 5 1/8 gauge 1  - 39830 AN Presser Foot Bottom, marked "CJ", for No. 8 3/16 gauge 1  - 39830 AR Presser Foot Bottom, marked "CK", for No. 12 3/16 gauge				
- 22799 AF Hinge Screw, for Nos. 8 3/16 and 12 3/16 gauge 1 42 39830 AM Presser Foot Bottom, marked "CL", for No. 5 1/8 gauge 1 59830 AN Presser Foot Bottom, marked "CJ", for No. 8 3/16 gauge 1 59830 AR Presser Foot Bottom, marked "CK", for No. 12 3/16 gauge 1 59830 AR Presser Foot Bottom, marked "CK", for No. 12 3/16 gauge 1 59830 AR Presser Foot Bottom, marked "CK", for No. 12 3/16 gauge on Style 39800 AT	41			
- 39830 AN Presser Foot Bottom, marked "CJ", for No. 8 3/16 gauge 1 39830 AR Presser Foot Bottom, marked "CK", for No. 12 3/16 gauge 1 43 22733 Set Screw, for No. 5 1/8 gauge only 1 44 39805 H-12 3/16 Main Feed Dog, marked "QR", 16 t.p.i., for No. 8 3/16 and 12 3/16 gauge on 5tyle 39800 AT			Hinge Screw, for Nos. 8 3/16 and 12 3/16 gauge	- 1
- 39830 AR Presser Foot Bottom, marked "CK", for No. 12 3/16 gauge				
22733 Set Screw, for No. 5 1/8 gauge only				
44 39805 H-12 3/16 Main Feed Dog, marked "QR", 16 t.p.i., for No. 8 3/16 and 12 3/16 gauge on Style 39800 AT1  45 39828 R-8 3/16 Throat Plate, marked "EG", for No. 8 3/16 gauge on Style 39800 AT1  46 39805 H-5 1/8 Main Feed Dog, marked "QP", 16 t.p.i., for No. 5 1/8 gauge on Style 39800 AT1  47 39828 R-5 1/8 Throat Plate, marked "EF", for No. 5 1/8 gauge on Style 39800 AT1  48 39826 D Differential Feed Dog, marked "QN", 16 t.p.i., for Style 39800 AT,				
45 39828 R-8 3/16 Throat Plate, marked "EG", for No. 8 3/16 gauge on Style 39800 AT1  46 39805 H-5 1/8 Main Feed Dog, marked "QP", 16 t.p.i., for No. 5 1/8 gauge on Style 39800 AT1  47 39828 R-5 1/8 Throat Plate, marked "EF", for No. 5 1/8 gauge on Style 39800 AT1  48 39826 D Differential Feed Dog, marked "QN", 16 t.p.i., for Style 39800 AT,			Main Feed Dog, marked "QR", 16 t.p.i., for No. 8 3/16 and 12 3/16 gauge on	_
- 39828 R-12 3/16 Throat Plate, marked "EH", for No. 12 3/16 gauge on Style 39800 AT1 46 39805 H-5 1/8 Main Feed Dog, marked "QP", 16 t.p.i., for No. 5 1/8 gauge on Style 39800 AT1 47 39828 R-5 1/8 Throat Plate, marked "EF", for No. 5 1/8 gauge on Style 39800 AT1 48 39826 D Differential Feed Dog, marked "QN", 16 t.p.i., for Style 39800 AT,	45	39828 R-8 3/16		_
46 39805 H-5 1/8 Main Feed Dog, marked "QP", 16 t.p.i., for No. 5 1/8 gauge on Style 39800 AT 1 47 39828 R-5 1/8 Throat Plate, marked "EF", for No. 5 1/8 gauge on Style 39800 AT 1 48 39826 D Differential Feed Dog, marked "QN", 16 t.p.i., for Style 39800 AT,			Throat Plate, marked "EH", for No. 12 3/16 gauge on Style 39800 AT	<b>-</b> 1
47 39828 R-5 1/8 Throat Plate, marked "EF", for No. 5 1/8 gauge on Style 39800 AT 1 48 39826 D Differential Feed Dog, marked "QN", 16 t.p.i., for Style 39800 AT,		39805 H-5 1/8	Main Feed Dog, marked "QP", 16 t.p.i., for No. 5 1/8 gauge on Style 39800 AT	- 1
believed the bog, marked on, to t.p.i., for beyte 5,000 AI,			Throat Plate, marked "EF", for No. 5 1/8 gauge on Style 39800 AT	- 1
	40	39826 D		- 1

 $<sup>\</sup>ensuremath{^{\star}}$  Available as an extra send and charge item.



# "AIR-KLIPP" CHAIN CUTTER AND PNEUMATIC PARTS (For Styles 39800 VAL, VAN, VAQ, VAW, VAX and VAY)

Ref.	Part		Amt.			
No.	No.	Description				
1	22562 A	Screw	- 2			
2	22302 A 77	Screw				
3		· ·				
3 4	39880 K	Throat Plate Support, rear	- l			
	39880 G	Throat Plate Support Bracket, rear	- 1			
5	G29911 S	Air-Klipp Assembly	- 1 - 2			
6 7	22829					
8	22519	Screw				
	53634 C	Movable Knife				
9	99669 A					
10	95910	Washer				
11	99667 B					
12	22894 W	Set Screw				
13	99674 B	Stud				
14	99663 F	Base				
15	15430 L	Oil Wick				
16	22894 W	Set Screw				
17	22797	Screw				
18	376 A	Screw				
19	99678 C	Drive Adaptor	- 1			
20	99672 T	Knife Driving Link	- 1			
21	99673	Link Bushing	- 1			
22	99671	Stud, for link	- 1			
23	22716 A	Screw	- 2			
24	99677 В	Inlet Part, marked "GC", for Nos. 8 3/16 and	- 1			
	99677 F	12 3/16 gauge machines	— T			
-	990// F	machines	- 1			
25	99676 K	Air-Klipp Tube, complete	- ī			
26	99670 C	Upper Knife	- 1			
27	22716	Screw	- 2			
28	671 B-12	Air Tube, 12 inches (304.80 mm) long				
29	22541 B	Screw	- 2			
30	39843 F	Washer Plate	<u> </u>			
31	671 D-2	Air Jet				
32	671 B-3	Air Tube , 45 inches (1143.0 mm) long				
33	39583 A	Mounting Bracket	- ī			
34	671 D-7	Pressure Regulator and Gauge	- ī			
35	671 F-8	Straight Fitting	- ī			
36	671 F-6	Reducer Bushing				
37	671 F-1	Male Fitting				
38	671 B-1	Air Tube, 36 inches (914.40 mm) long				
39	61242	Pitman Rod Collar	- 1			
40	88	Screw	- 2			
41	671-2	Air Valve Mounting Block	- 1			
42	22651 CB-4	Set Screw	- 2			
43	671-3	Air Valve Actuator Block	_ 1			
44	1453 A	Pitman Rod	_ 1			
45	21371 MZ	Connection	- 1			
46	671-1	Air Valve	- 1			
47	22729 B	Screw				
48	671 F-2	Elbow Fitting	- 2 - 1			
49	671 B-11	Air Tube, 30 inches (762.0 mm) long	- 1			
~ J	OLT D-II	TILL TODG, SO THERES (102.0 mm) TOMS	-			



#### THREAD STAND AND ACCESSORIES

Ref.	Part	Amt				
No.	o. No. Description					
1	21101 H-4	Thread Stand, complete, for 4 cones, for Styles 39800 AA, AP and AX 1				
+ 1A		Thread Stand, complete, for 6 cones, for Styles				
		39800 AB, AL, AN, AQ, AT, AW, AY, VAL, VAN, VAQ, VAW, VAX, VAY				
2	21114 S-4	Lead Eyelet, for No. 21101 H-4 1				
_	21114 AL-5	Lead Eyelet, for 5 threads 1				
3	258 A	Nut8 or 10				
4	652-16	Washer 4 or 5				
5	21114	Spool Seat Disc 4 or 5				
6	21114 W	Spool Pin				
7	21104 V	Pad, for thread cone 4 or 5				
8	21114 H-4	Eyelet Support, for No. 21101 H-4 1				
-	21114 H-6	Eyelet Support, for 6 threads- $-$ - $-$ - $-$ 1				
9	22651 CD-4	Screw 1				
10	21104 B-24	Thread Stand Rod 1				
11	21114 D-4	Spool Seat Support, for No. 21101 H-4 1				
	21114 D-6	Spool Seat Support, for 6 threads 1				
12	22651 CD-5	Screw 2				
13	21104 Н	Nut 1				
14	652-16	Washer 1				
15	21114 U	Lead Eyelet Ball Split Socket 2				
16	21114 A	Thread Stand Base 1				
17	22651 CD-4	Screw 1				
18	22810	Clamp Screw 1				
19	21114 T	Lead Eyelet Socket Ball 1				
20	22651 CD-4	Screw 2				
21	421 D-34	Foot Lifter Treadle Chain, 34 inches (863.60 mm)  long				
22	21388 AU	Socket Wrench, for 3/8 inch (9.52 mm) hexagonal nut holding feed eccentric 1				
23	21388 W	Wrench, curved double end, 9/32 inch (7.14 mm) opening				
24	21227 BF	Feed Eccentric Extractor Hook 1				
*25	21225-3/32	Looper Gauge, 3/32 inch (2.38 mm) 1				
26	660-272	Thread Tweezers1				
27	21207 B	Screwdriver, 1/8 inch (3.18 mm) diameter 1				
28	660-264	"S" Hook, for treadle chain 2				
29	WR56	Wrench, $1/8$ inch (3.18 mm) hexagonal $$ 1				
30	WR65	Wrench, 1/16 inch (1.59 mm) hexagonal 1				
31	WR69	Wrench, 9/64 inch (3.58 mm) hexagonal 1				
_	660-458	Dust Cover (not shown) 1				
_	39899 A	Threading Wire (not shown) 1				
_	SC-303	Wood Screw, $#12 \times 1$ inch (25.4 mm) long (not shown)- 3				
_	28604 R	Container of Oil, 16 ounces, Spec. 175 (not shown) - 1				
_	652-24	Washer, for use in tableboard (not shown) 8				
*	39803	Edge Guide, cloth plate mounted (not shown) $1$				
*	29481 M	Edge Guide (not shown) 1				
*	21227 DD	Needle Height Gauge (not shown)1				
*	21394 N	Knife Grinder (not shown) 1				
*	39598 G	Swinging Frame-required with No. 21394 N (not shown) 1				

<sup>\*</sup> Available as extra send and charge item.

<sup>+</sup> Number for complete thread stand not available, order component parts.

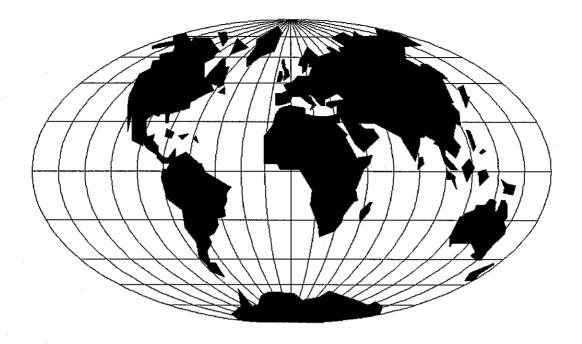
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