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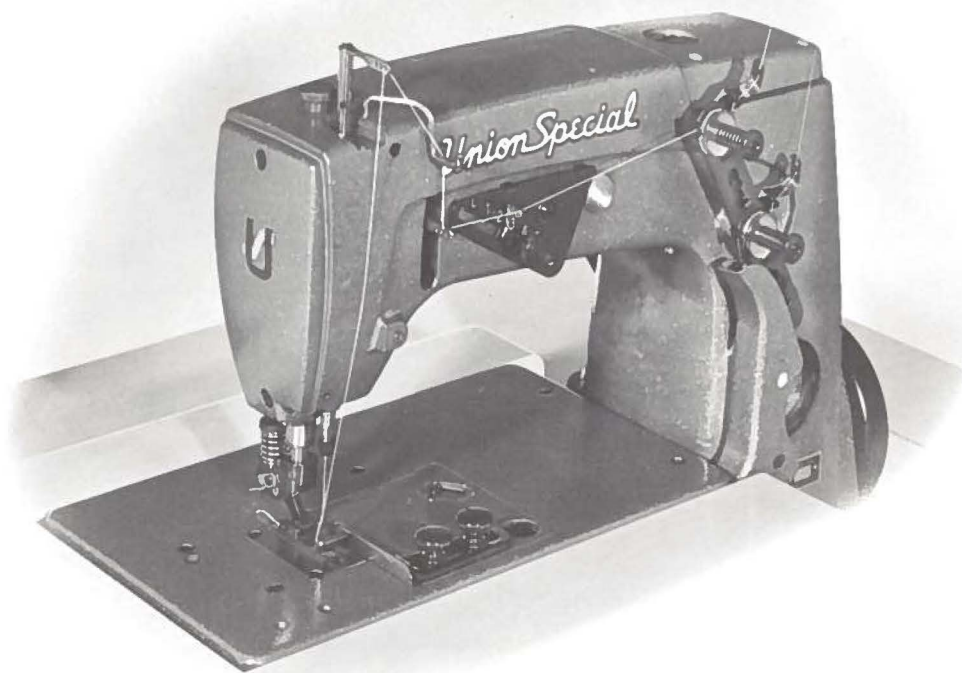
Union Special[®]
LEWIS • COLUMBIA

**INDUSTRIAL
SEWING
MACHINES**

STYLES

56300F

56300R



STYLE 56300 F

**ADVANCED HIGH SPEED
FIFTY THOUSAND SERIES
FLAT BED MACHINES**

**WITH INDEXED THREAD RATIO CONTROL
AND
FEEDING PRESSER FOOT**

Union Special CORPORATION

CHICAGO

From the library of: Superior Sewing Machine & Supply LLC

CATALOG

No.

T129F

**Third
Edition**

Catalog No. T129 F
(Supplement to Catalog No. 129 M)

INSTRUCTIONS
FOR
ADJUSTING AND OPERATING
LIST OF PARTS

CLASS 56300

Styles

56300 F

56300 R

With Indexed Thread Ratio Control

and

Feeding Presser Foot

Third Edition

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Union Special
CORPORATION
INDUSTRIAL SEWING MACHINES
CHICAGO

Printed in U.S.A.

April, 1974

IDENTIFICATION OF MACHINES

Each Union Special machine is identified by a Style number on a name plate on the machine. Style numbers are classified as standard and special. Standard Style numbers have one or more letters suffixed, but never contain the letter "Z". Example: "Style 56300 F". 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 56300 FZ".

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 56300".

APPLICATION OF CATALOG

This catalog is a supplement to Catalog No. 129 M, Third Edition and should be used in conjunction therewith. Only the parts found on Styles 56300 F and R, but not on Styles 56300 F and R covered in Catalog 129 M are illustrated. At the back are two illustrations identifying the parts by reference number and at the top of the page the part numbers and description identifies the part. Also at the back are two illustrations identifying the parts by reference numbers and on the opposite page the part numbers and description identifies the part. Any part that is a component of another part is indicated by indenting its description under the description of the assembly or base part. Always use the part number in the second column, never use the reference number in the first column when ordering repair parts.

This catalog applies specifically to the Standard Styles of machines as listed herein. It can also be applied with discretion to some Special machines in this Class. References 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 toward the operator.

STYLES OF MACHINES IN CLASS 56300

Advanced High Speed Single Needle Flat Bed Machine, Medium Throw, Needle Bearing Needle Bar Drive, Light Weight Presser Bar and Needle Bar Driving Mechanism, Single Reservoir Enclosed Positive Automatic Lubricating System, Filtered Oil Return Pumps for Head and Base, Needle Bearings and Bronze Bearings for Feed Bar and Feed Rocker Shafts Greased and Sealed, Lateral Loop Travel, Large Handwheel and Improved Belt Guard, Prepared for Use with Knee Press for Presser Foot Lifter, Maximum Work Space to Right of Needle Bar 8 1/4 Inches.

56300 F Medium throw machine, with a new feeding presser foot and indexed thread ratio control parts, capable of reducing seam pucker, using a loose or tight stitch as required. For seaming trousers, coats and for similar operations on light to medium weight durable press materials. Seam Spec. 401-SSa-1. Type 128 GBS needle. Maximum recommended speed 6500 R. P. M.

56300 R Medium throw machine, with a new feeding presser foot and indexed thread ratio control parts, capable of reducing seam pucker, using a loose or tight stitch as required. Presser Foot has yielding section to the left of needle hole. For seaming trousers, coats and for similar operations on light to medium weight durable press materials. Seam Spec. 401-SSa-1. Type 128 GBS needle. Maximum recommended speed 6500 R. P. M.

NEEDLES

Each Union Special needle has both a type number and a 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 the largest diameter of blade measured in thousandths of an inch, midway between the shank and the eye. Collectively, the type number and the size number is the complete symbol, which is given on the label of all needles packaged and sold by Union Special.

Standard recommended needle for Styles 56300 F and R is Type 128 GBS. It has a round shank, round point, short, double groove, struck groove, ball eye, spotted, ball point, chromium plated and is available in sizes 032, 036, 040, 044, 049, 054, 060.

To have needle orders promptly and accurately filled, an empty package, a sample needle, or the type and size number should be forwarded. Use description on label. A complete order would read: "1000 Needles, Type 128 GBS, Size 032".

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

USE GENUINE NEEDLES AND REPAIR PARTS

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

Genuine needles are packaged with labels marked *Union Special*. Genuine repair parts are stamped with the Union Special trade mark. Each trade mark is your guarantee of the highest quality in materials and workmanship.

IDENTIFYING PARTS

Where construction permits, each part is stamped with its part number. On some of the smaller parts and on those where construction does not permit, an identification letter is stamped in to distinguish the part from similar ones.

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.

TERMS

Prices are strictly net cash and are 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.

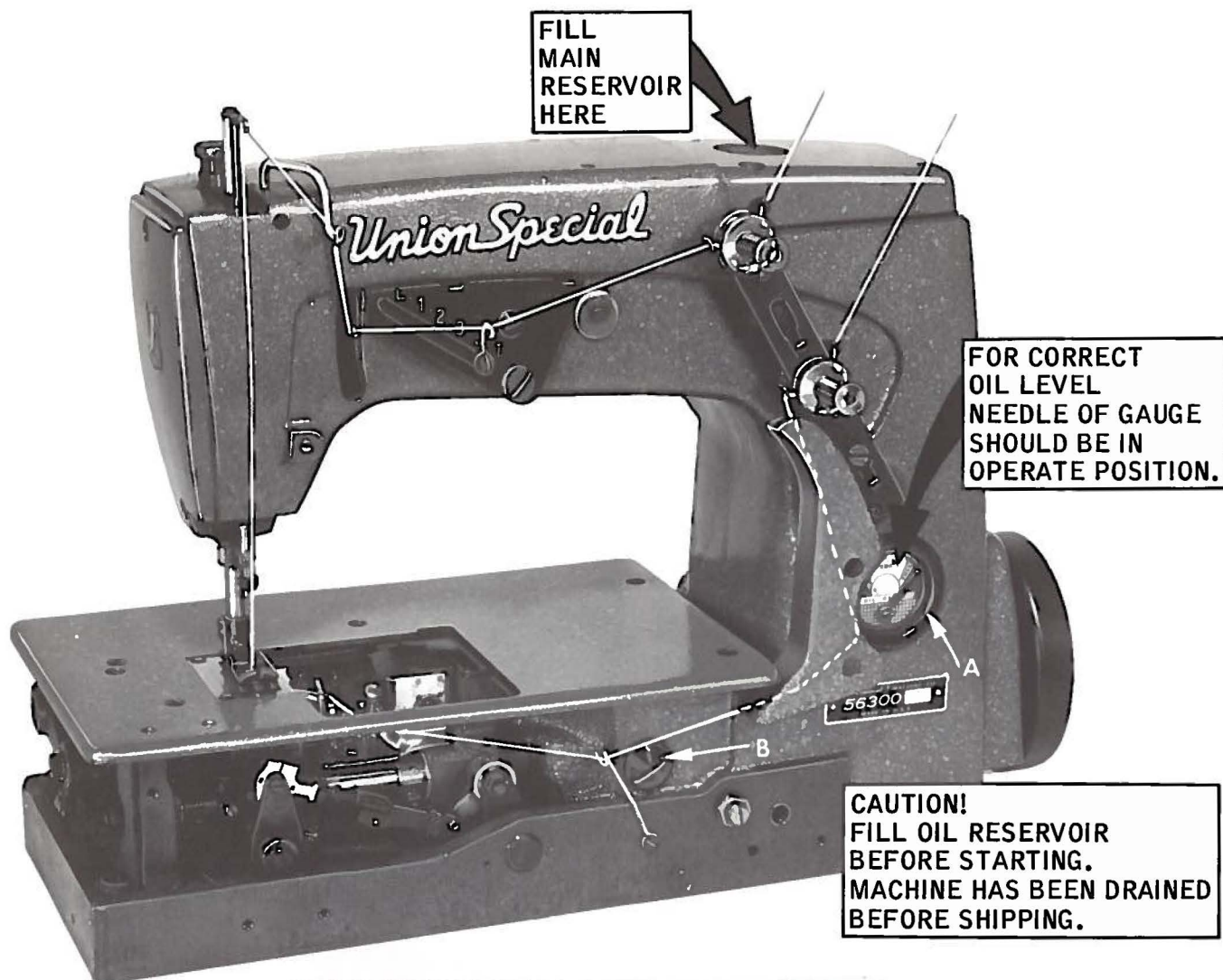
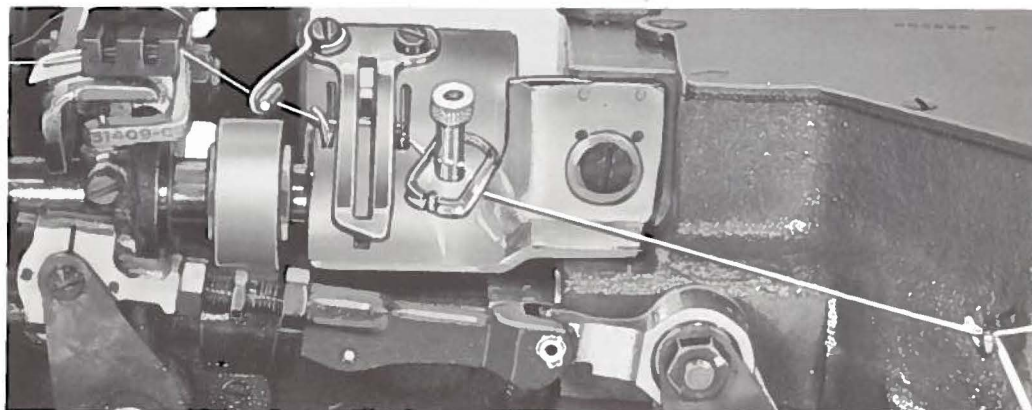


Fig. 1A



THREADING AND OILING DIAGRAM FOR STYLES 56300 F AND R MACHINES

Thread machine as indicated above. The looper threading has been enlarged for clarity.

The oil has been drained from the machine before shipping and so the reservoir must be filled before starting to operate. To fill machine with oil, remove plug screw in top cover and add oil until needle of oil gauge (A, Fig. 1A) is in yellow band marked "FULL". Use a straight mineral oil of a Saybolt viscosity of 90 to 125 seconds at 100° Fahrenheit. Maintain oil level in "OPERATE" position and add oil when needle is in yellow band marked "LOW". The machine is automatically lubricated and no oiling other than keeping the main reservoir filled is necessary.

Excessive oil in the main reservoir may be drained at the plug screw (B, Fig. 1A).

INSTRUCTIONS FOR MECHANICS

NOTE: Difference between the Styles 56300 F and R covered in this catalog and Styles 56300 F and R covered in Catalog No. 129 M (Third Edition) is in the sewing parts and the thread handling system, so all instructions pertaining to the adjustment of Styles 56300 F and R with No. 29476 MY thumbscrew adjustable needle thread frame eyelet are the same as those for Styles 56300 F and R covered in Catalog No. 129 M with the following exceptions.

THREADING

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

THREAD TENSIONS

SETTING NEEDLE THREAD TAKE-UP WIRE AND FRAME EYELET

This machine style is equipped with disc thread tensions, additional thread handling and control parts, so the adjusting sequence should be made in the following manner:

With the needle bar at the top of its stroke, set the needle thread take-up wire (A, Fig. 12A) so its lower extended surface is $1\frac{7}{16}$ inch above the centerline of the needle lever thread eyelet hole and $\frac{3}{4}$ inch across the centerlines of its vertical surfaces (See Fig. 12A).



Fig. 12A

Set the looper thread guide eyelet (A, Fig. 13) so its left outer surface is $\frac{3}{4}$ inch from the left side of the looper thread take-up (B), (See Fig. 13).

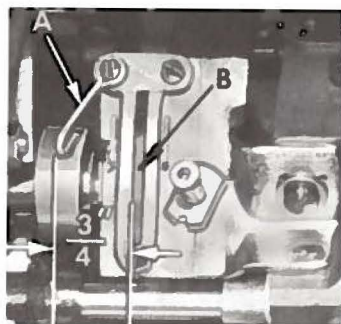


Fig. 13

Adjust looper thread tension to a minimum required for controlling the looper thread (light). Set the thread index eyelet (B, Fig. 12A) at "3" on the adjusting plate (C). Changing the needle thread tension only, balance the stitch so that when 6" of sewn seam are raveled back, the needle thread is approximately as long as the looper thread. A 1" difference in lengths is permissible. NOTE: Use a sample of the material to be sewn. Maintaining this needle thread tension, move thread index eyelet (B) up toward "L" to obtain a looser seam (longer needle loops) and toward "T" to obtain a tighter seam.

ADJUSTING THE FEEDING PRESSER FOOT

Remove the presser spring regulator and the presser spring. Adjust the long stop screw (A, Fig. 14) in presser bar guide (B) against the bed casting as required to insure a clearance between the guide and the top of presser bar bushing (C), yet so the guide is pulled up quickly by the lifter lever link (D) when foot treadle is activated. Tighten lock nut (E) on stop screw.

As a preliminary setting, adjust the spring regulator nut (A, Fig. 15) on the feeding presser foot so the distance from the top of the spring (B) to the yoke (C) is $5/8$ inch, (See Fig. 15). Assemble the feeding presser foot to presser bar. With presser foot resting on throat plate and feed dog down, press down on spring regulator nut (A, Fig. 15) until the marks on the presser foot bottom line up with the centerline of the needle, while keeping the needle in the center of the needle slot, tighten set screw (D) securing the presser bar guide to the presser bar, making sure that the stop screw in the presser bar guide is resting on the bed casting.

Replace presser spring and presser spring regulator. Turn the presser bar spring regulator screw down until the top of its threaded portion is level with the head casting.

NOTE: Any change in the alignment of needle in relationship to the marks on the presser foot bottom probably means that the stop screw of the presser bar guide was not seated against bed casting before locking set screw.

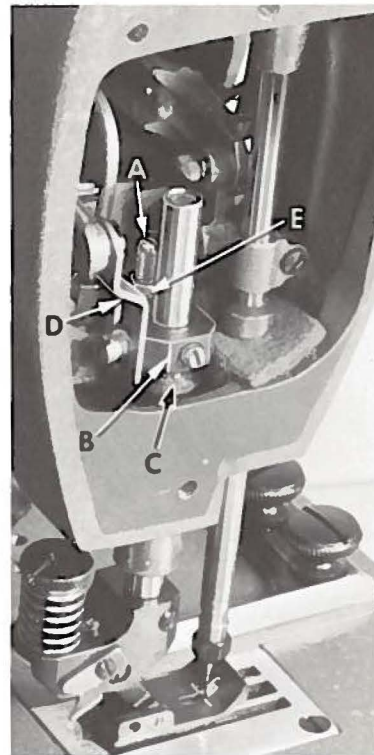


Fig. 14

When the presser foot is lifted off the bare throat plate, the foot should move back only slightly, less than $1/64$ inch. The stop screw (E, Fig. 15) on the yoke, which is set at the factory, can be re-adjusted if necessary, should this dimension become changed.

CHECK

Presser foot at back of needle slot should cover most of throat plate land when resting on the bare throat plate.

When the presser foot bottom is raised by material so that the feeding foot spring bottoms, the back of the needle slot should clear the needle. The main presser bar should not lift before the feeding foot spring bottoms.

The purpose of the feeding foot is to make the top and bottom ply of cloth feed the same amount without pulling on the bottom ply. The $5/8$ " setting on the feeding foot spring usually gives a good matching of plies and a strong feeding pull. Reducing this pressure will tend to feed the top ply more. Increasing this pressure will tend to feed the bottom ply more.

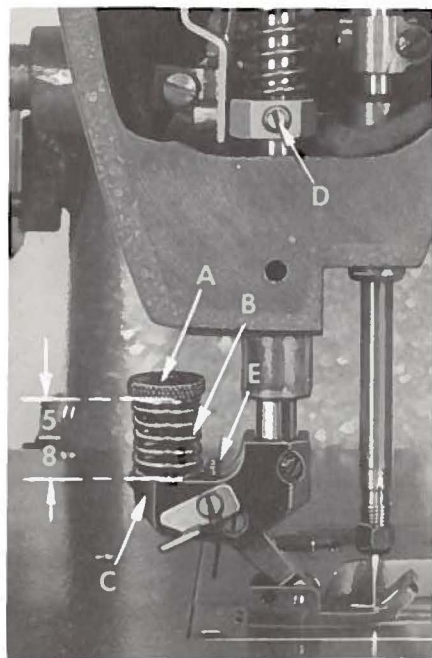


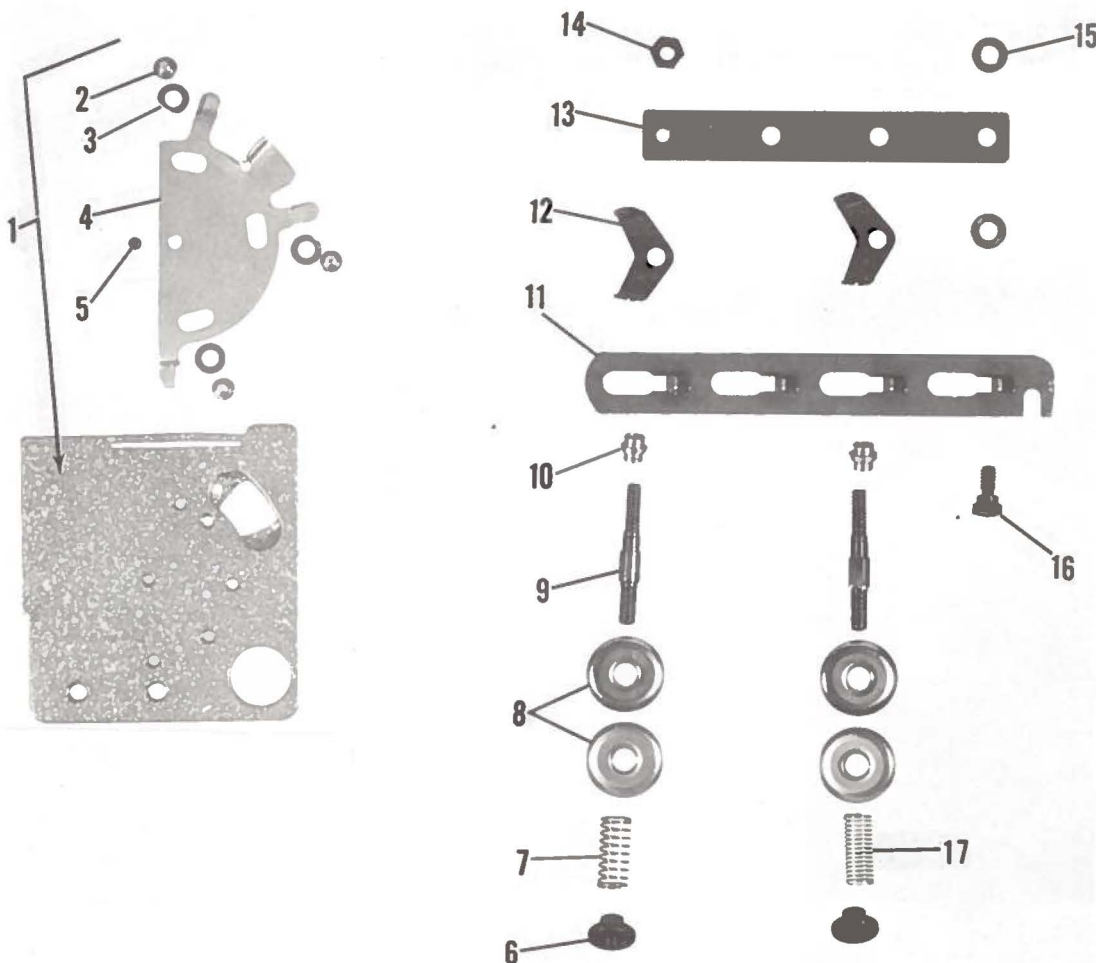
Fig. 15

The parts illustrated at the bottom of this page and page 9, and on pages 10 and 12; described below and at the top of page 9, and on pages 11 and 13, represent the parts that are used on Styles 56300 F and R with operator controlled thread handling parts and a feeding presser foot, but are not used on Styles 56300 F and R covered in Catalog No. 129 M, Third Edition.

Use Catalog 129 M, Third Edition (Styles 56300 F and R) for all parts not illustrated or described in this catalog.

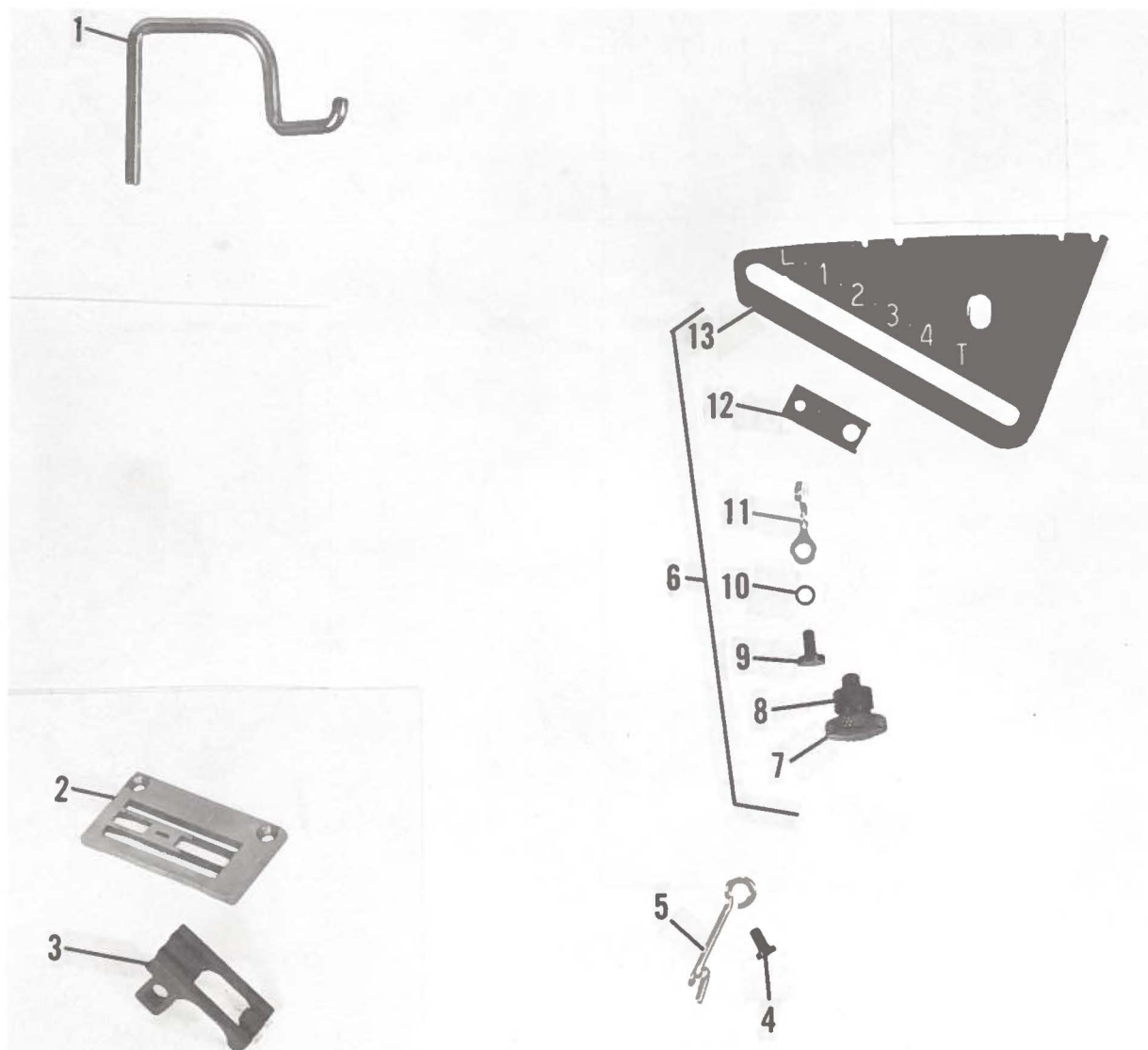
Reference numbers that are inside a bracket or box on the picture plate and have indented descriptions, indicate they are component parts of a complete part or assembly.

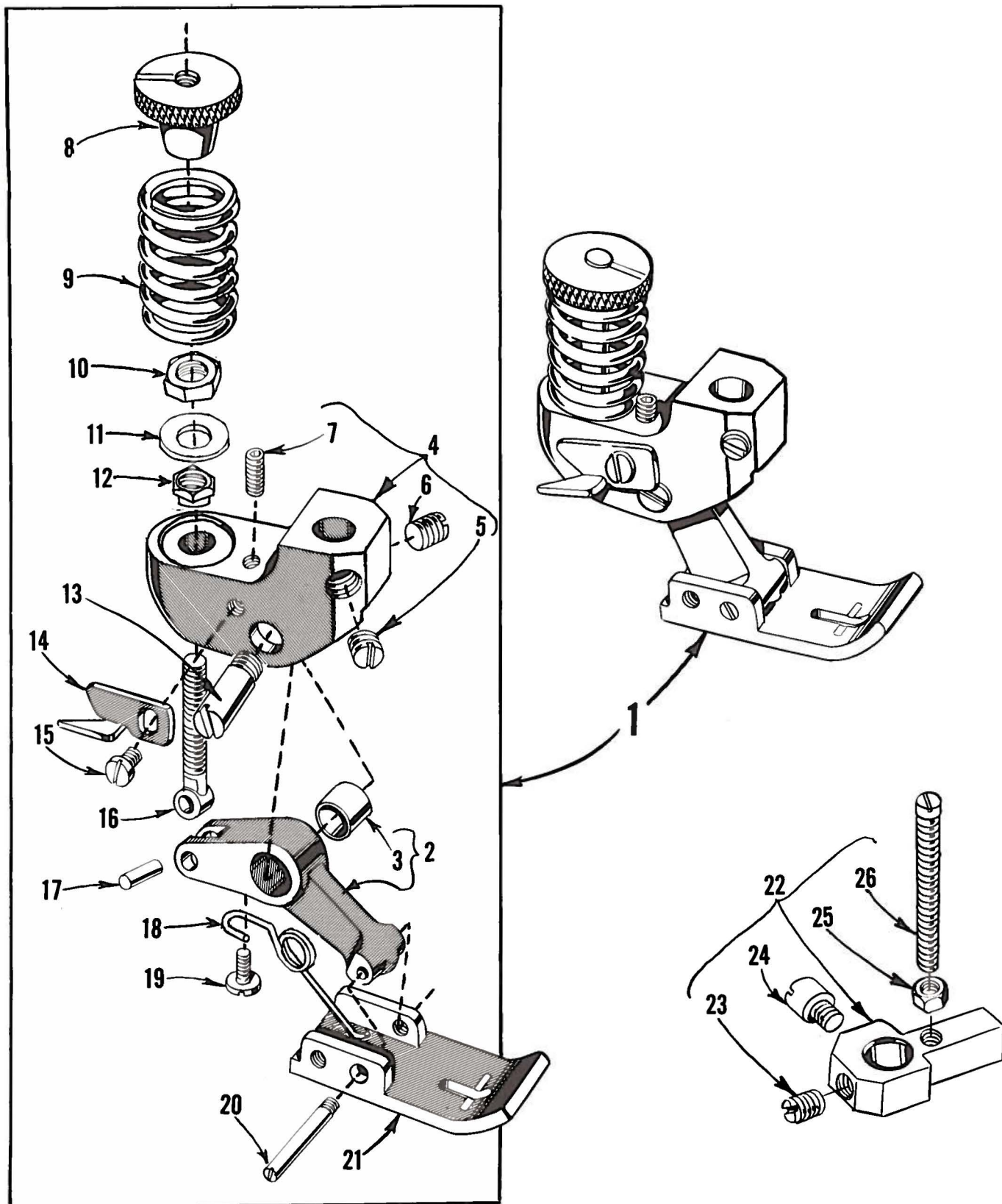
Ref. No.	Part No.	Description	Amt. Req.
1	56381-212	Cloth Plate Cover, 3 5/16 inches wide -----	1
2	22760 A	Screw -----	3
3	35772 H	Spring Washer -----	3
4	51281 AC	Cloth Plate Cover Spring -----	1
5	22845 B	Screw -----	1
6	51292 C	Tension Nut -----	2
7	51292 F-8	Tension Spring, needle -----	1
8	109	Tension Disc -----	4
9	51292 G	Tension Post -----	2
10	51292 A	Tension Post Ferrule -----	2
11	21657-4	Tension Disc Separator -----	1
12	51292 D	Tension Thread Eyelet -----	2
13	53592	Tension Post Support -----	1
14	43266	Nut, for tension post -----	1
15	80557	Washer, for tension post support -----	2
16	22598 C	Screw, for tension post support -----	1
17	51292 F-2	Tension Spring, looper -----	1
-	51491 C	Lead-in Thread Guide, for Style 56300 R (not shown) -----	2



THROAT PLATE, FEED DOG AND NEEDLE THREAD HANDLING PARTS

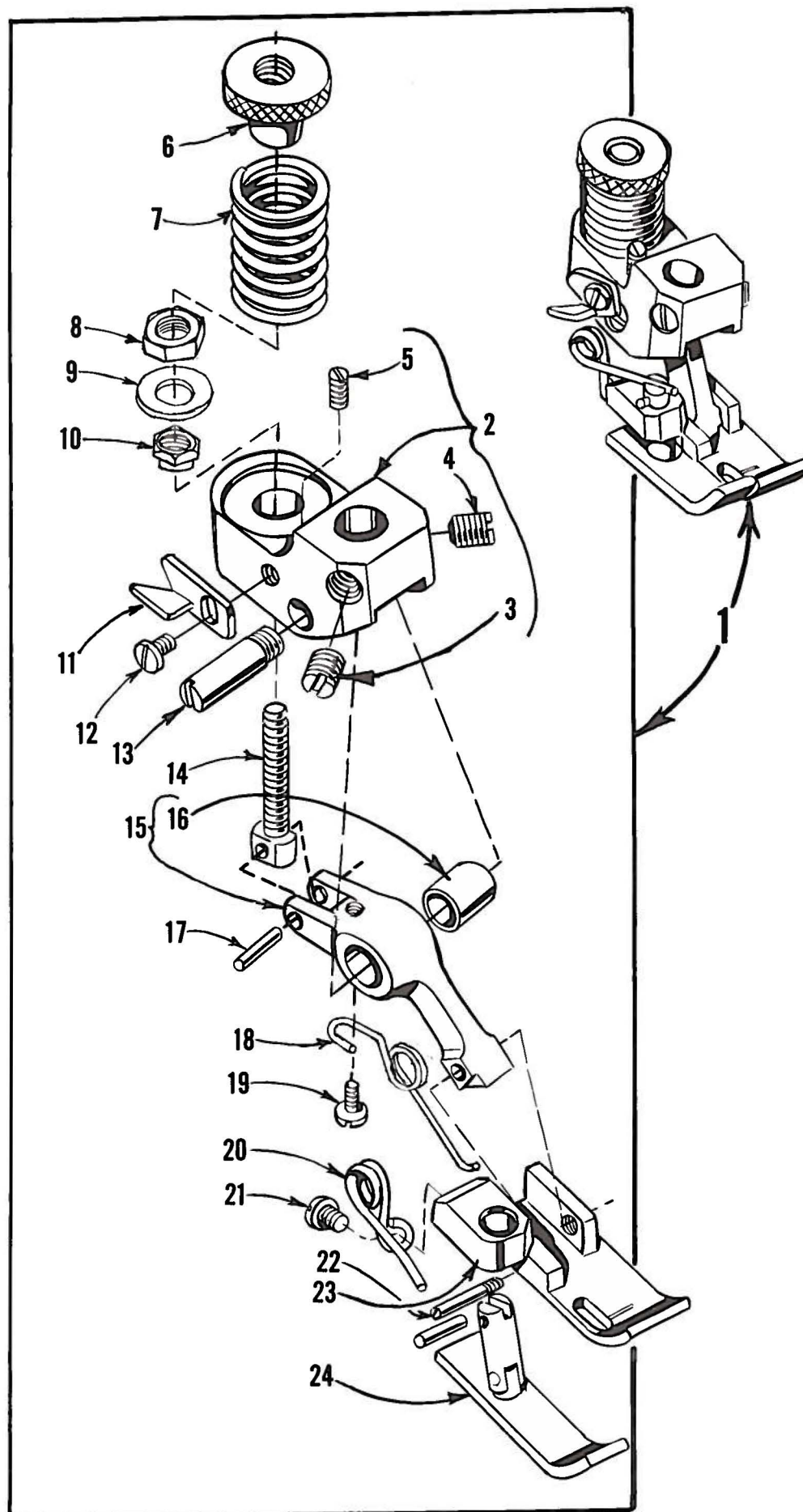
<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	56370	Needle Thread Take-up Wire -----	1
2	51324 W	Throat Plate -----	1
3	51305 W	Feed Dog, 22 teeth per inch -----	1
4	22768	Screw, for looper thread guide eyelet -----	1
5	56358 E	Looper Thread Guide Eyelet -----	1
6	29476 MY	Needle Thread Cast-off Assembly -----	1
7	22837	Screw -----	1
8	56358 D	Washer -----	1
9	98 A	Screw -----	1
10	56358 C	Guide Washer -----	1
11	158 B	Eyelet -----	1
12	56358 B	Guide Block -----	1
13	56304	Adjusting Plate -----	1
-	56958	Needle Lever Thread Eyelet (not shown) -----	1
-	56958 A	Needle Bar Thread Eyelet (not shown) -----	1





**FEEDING PRESSER FOOT AND PRESSER BAR CONNECTION AND
GUIDE (FOR STYLE 56300 F ONLY, UNLESS OTHERWISE SPECIFIED)**

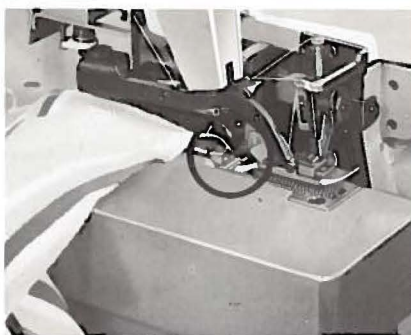
<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	56320 F	Presser Foot Assembly-----	1
2	56330 AE	Presser Foot Link, marked "A" -----	1
3	56330 AP	Bushing -----	1
4	56330 AK	Yoke-----	1
5	88	Screw -----	1
6	22560 B	Screw -----	1
7	22785	Screw -----	1
8	56330 AH	Regulating Nut -----	1
9	56330 AD	Compression Spring -----	1
10	41071 G	Locking Nut -----	1
11	56330 AU	Washer -----	1
12	51430 F	Nut -----	1
13	56330 AF	Hinge Screw -----	1
14	52930 AC	Chain Cutting Knife -----	1
15	604	Screw, for chain cutting knife -----	1
16	56330 AG	Connecting Screw -----	1
17	56330 AJ	Hinge Pin -----	1
18	56330 AX	Tilting Spring -----	1
19	73 A	Screw, for tilting spring -----	1
20	22799 B	Hinge Screw -----	1
21	56330 AB	Presser Foot Bottom, marked "BS" -----	1
22	56357 A	Presser Bar Connection and Guide, for Styles 56300 F and R -----	1
23	531	Screw -----	1
24	402	Screw -----	1
25	51430 F	Locking Nut -----	1
26	22840 C	Adjusting Screw-----	1



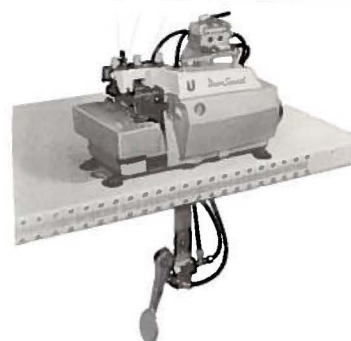
FEEDING PRESSER FOOT FOR STYLE 56300 R ONLY

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	56320 H	Presser Foot Assembly-----	1
2	56330 AK	Yoke-----	1
3	88	Screw -----	1
4	22560 B	Screw -----	1
5	22785	Screw -----	1
6	56330 AH	Pressure Regulating Nut -----	1
7	56330 AD	Compression Spring -----	1
8	41071 G	Locking Nut -----	1
9	56330 AU	Washer -----	1
10	51430 F	Nut -----	1
11	52930 AC	Chain Cutting Knife -----	1
12	604	Screw, for chain cutting knife -----	1
13	56330 AF	Hinge Screw -----	1
14	56330 AG	Connecting Screw -----	1
15	56330 AN	Presser Foot Link, marked "B" -----	1
16	56330 AP	Bushing -----	1
17	56330 AJ	Hinge Pin -----	1
18	56330 AX	Tilting Spring-----	1
19	73 A	Screw, for tilting spring -----	1
20	56330 AR	Spring, for yielding section -----	1
21	604	Screw, for yielding section spring -----	1
22	22799 G	Hinge Screw -----	1
23	56330 AL	Presser Foot Bottom, marked "BR" -----	1
24	56330 AM	Yielding Section -----	1

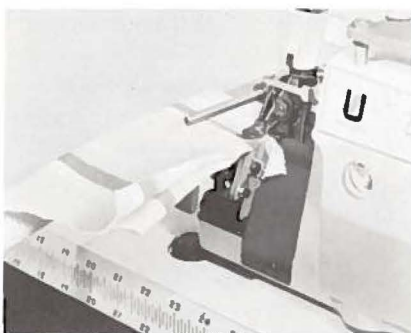
BOOST PRODUCTION WITH THESE WORK AIDS FROM UNION SPECIAL



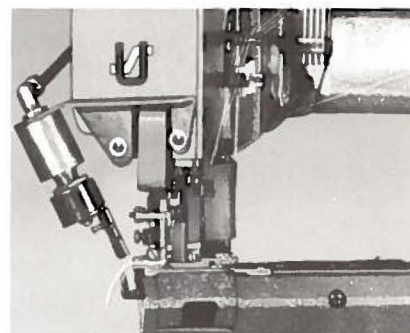
PNEUMATIC CHAIN-CUTTER—for use on conventional Class 39500 and 39600 is a durable scissor-action mechanism that makes a clean positive cut. Style 2899 A-1



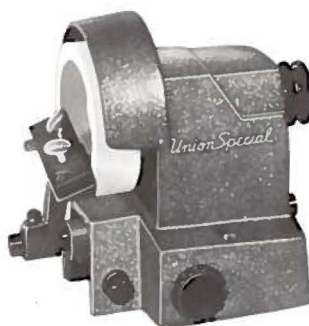
PNEUMATIC FOOT LIFTER—The air-operated foot lifter for use on Class 39500 machines allows the operator to raise the foot simply by knee-touching an actuating switch.



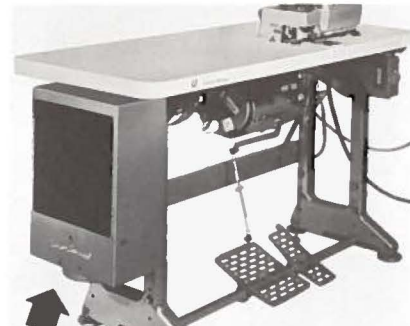
AIR FABRIC UNCURLER—This unit, designed for Class 39500 machines, uses air jets to remove curls from top and bottom plies of flat knit materials as fabric passes through sewing area. Style 2899 B-1



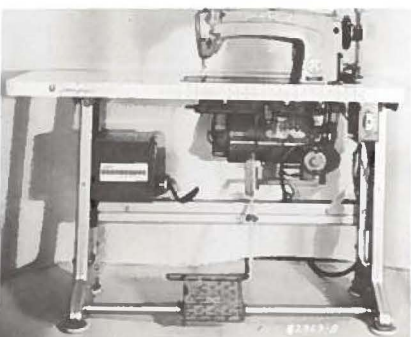
CHAIN CUTTER—The above photo shows the small pneumatic chain cutter that is available for installation as an accessory unit on Class 36200 Flatseamers. Style 2899A-6



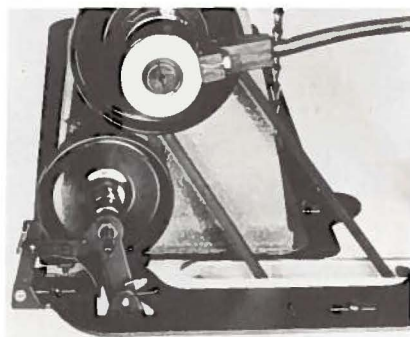
KNIFE GRINDER sharpens straight or angle type knives, is simple and easy to operate, eliminates defective garments caused by dull knives.



HEAT DISPELLER—Union Special's auxiliary unit (arrow) is an effective means for reducing oil temperature where heavy duty service requires it. Style 2899 E-1



AMCO ELECTRONIC NEEDLE POSITIONERS eliminate the necessity of reaching for the hand-wheel to move the needle up or down . . . this allows the operator to keep both hands on the work, insuring better control, uniform quality and increased production.



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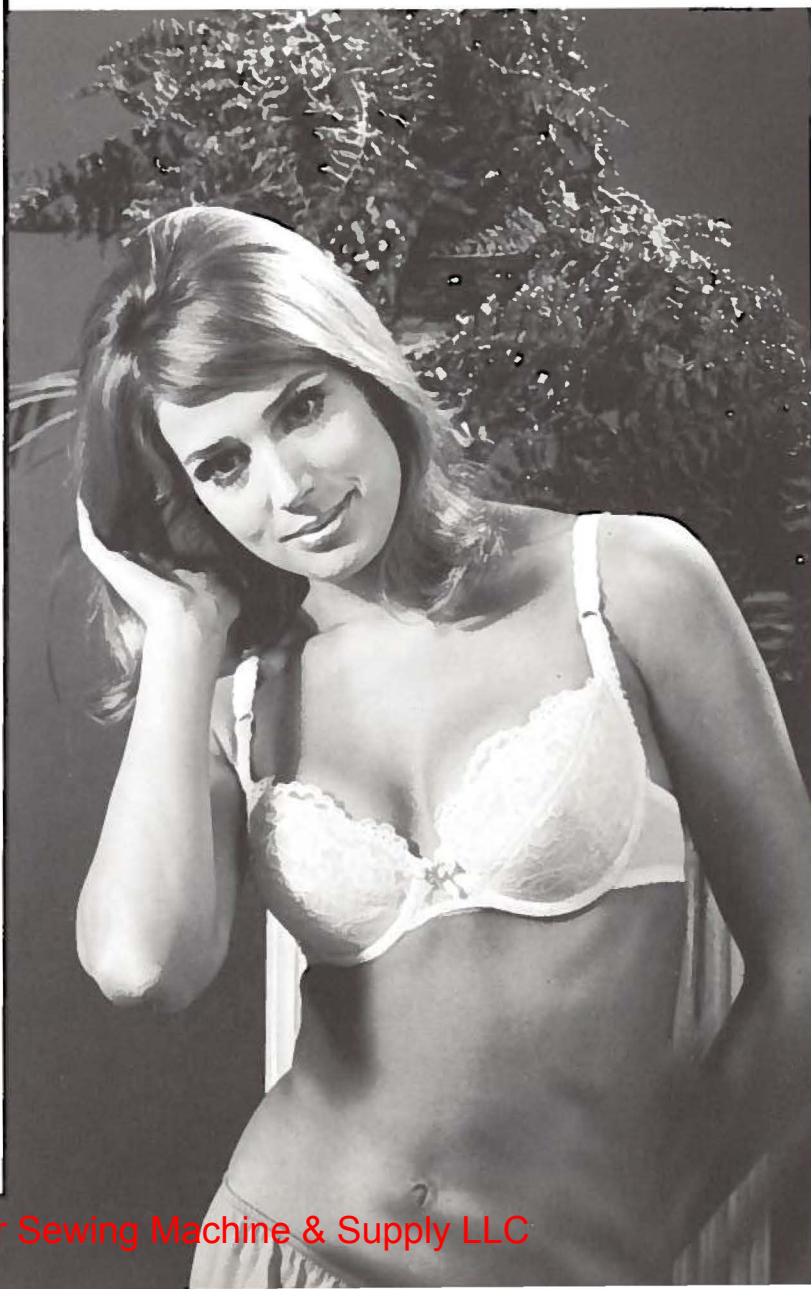
Helpful, authoritative information on the most efficient types of equipment for making virtually any machine sewed article is available from Union Special's Sales Promotion Department. Among the many interesting, illustrated bulletins that are available without obligation are the following:



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- No. 249, "Rainwear"
- No. 250, "Men's Dress Shirts"
- No. 251, "Service Shirts and Pants"
- No. 252, "Men's Shorts and Pajamas"
- No. 253, "Overalls, Coveralls, and Dungarees"
- No. 254, "Men's Knit Underwear"
- No. 256, "Knit Outerwear"
- No. 259, "Men's Sports Shirts"
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- No. 710, "MCS ForMation Unit"
- No. 730, "MCS Automatic Dual Underfront Shirt Hemmer"
- No. 740, "MCS Automatic Rib-Knit Cuff Machine"
- No. 750, "Fusing Presses"
- No. 1100, "Lewis Blindstitch, Chainstitch, Lockstitch, Machines"
- No. 1105, "Button Sewers—Ticket Tackers"
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- No. 1500, "Alteration Department Machines"

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