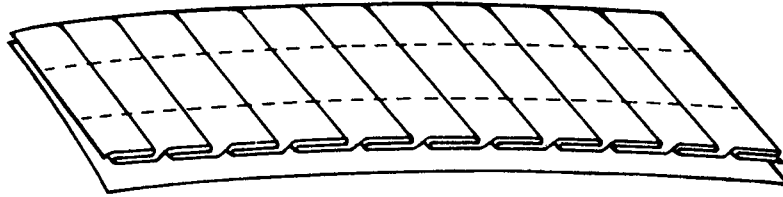


MAN-SEW

PLEATER ATTACHMENT STYLE 81

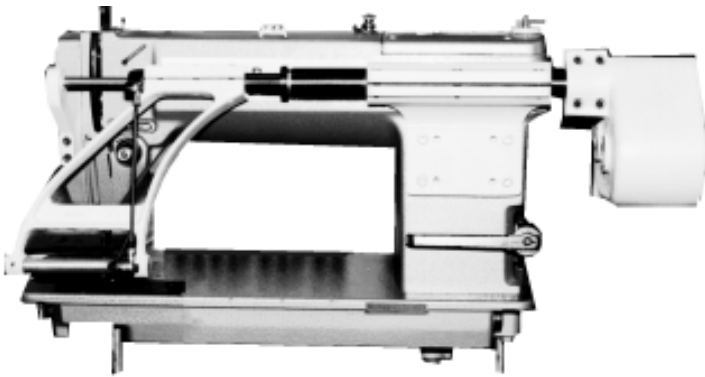


Eliminate the slow old fashioned method of laying in side pleats by hand, by adapting the MAN-SEW side pleating attachment to your present sewing machine. This valuable time saving attachment can be adapted to most sewing machines having an upper handwheel. Pleats can be laid in quickly and easily with 1" show or less. The show is adjustable by simply changing the length of stitch. The number of stitches per pleat is set by the gear ratio of 3, 4, 6 or 9 stitches per pleat. The maximum blade stroke is 3". This attachment can be used to pleat on the edge of material or on top of material in one sewing operation.

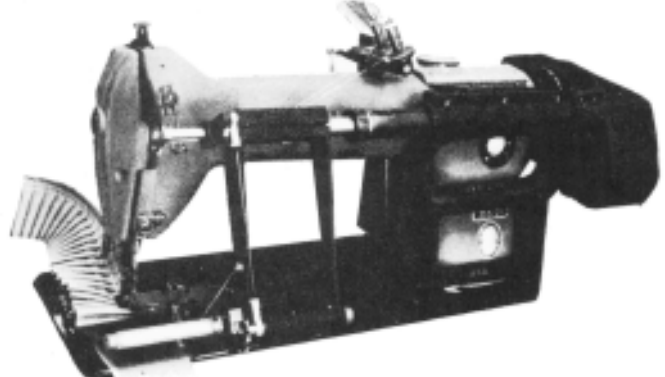
Laces, cottons, woolens, plastics and medium heavy drape materials are suitable for pleating with this attachment.

USED BY MANUFACTURERS OF:

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- Upholstery Trim
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- Draperies
- Buffing Wheels



attachment with curved arm fittings



attachment with straight arm fittings

With Man-Sew attachments production and quality go up and costs come down.

MAN-SEW CORPORATION

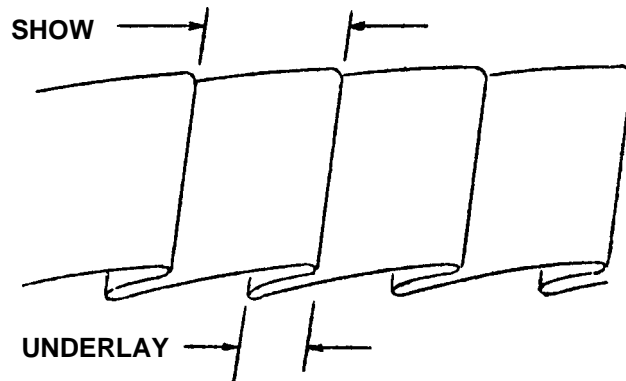
5054 BETMAR DR., ZEPHYRHILLS, FL 33542-5310

*TOLL FREE FOR U.S.A., CANADA, MEXICO & PUERTO RICO

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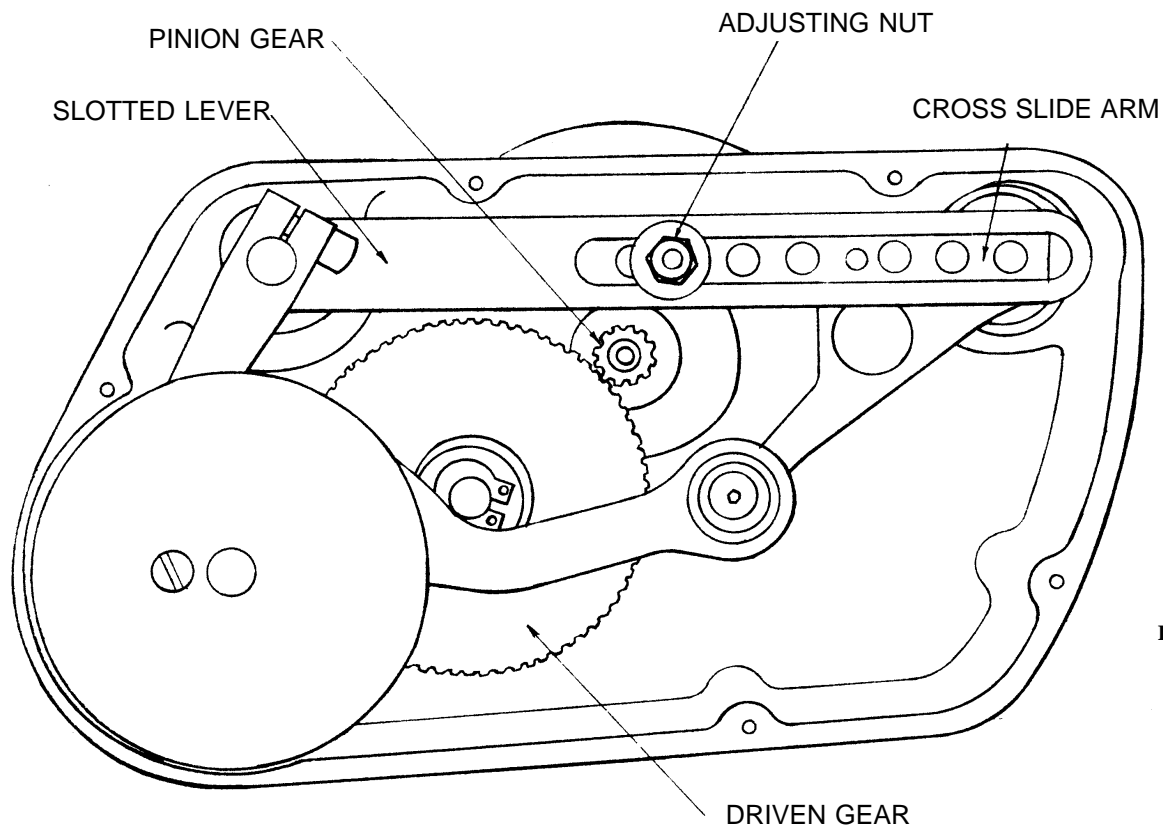
ALL OTHERS TEL: (813)779-0432 FAX: (813)779-0442

TO ADJUST PLEAT



For a longer pleat (show) - increase the length of the stitch. For a smaller pleat - decrease the length of the stitch. The length of pleat (show) is dependent upon the gear ratio (number of stitches per pleat) and the length of stitch.

To increase or decrease the amount of underlay, turn the hand-wheel so that the slotted lever is parallel with the cross slide bar (shown below) and make sure that the oscillating blade is all the way into the needle. Then loosen the adjusting nut and slide it to the right for less underlay or to the left for more underlay.



REV. 5/97

RECOMMENDED MAXIMUM SPEED

The recommended maximum speed for the side pleater is:

250 X THE GEAR RATIO

GEAR RATIO	SPEED
9 TO 1	2250 RPM
6 TO 1	1500 RPM
4 TO 1	1000 RPM
3 TO 1	750 RPM
2 TO 1	500 RPM

Below is a table showing the approximate "show" or length of pleat for different gear ratios and stitch lengths.

APPROXIMATE "SHOW"

NUMBER OF STITCHES PER INCH	4 TO 1 GEAR RATIO	6 TO 1 GEAR RATIO	9 TO 1 GEAR RATIO
8 STITCHES	1/2"	3/4"	1-1/8"
12 STITCHES	5/16"	1/2"	3/4"
16 STITCHES	1/4"	3/8"	9/16"

The underlay is dependent on the stroke (length of movement of the oscillating blade) less the show. Below is a table of approximate underlays at maximum stroke. The type of material used and the blade pressure are factors that also affect the amount of underlay.

AT MAXIMUM STROKE OF 3 INCHES		
SHOW	UNDERLAY MAXIMUM	MAXIMUM MATERIAL RATIO
1/4"	1-3/8"	12 TO 1
3/8"	1-5/16"	8 TO 1
1/2"	1-1/4"	6 TO 1
3/4"	1-1/8"	4 TO 1
1"	1"	3 TO 1

For underlay less than above maximum without changing the "show", simply reduce the amount of stroke.

$$\text{MATERIAL RATIO} = \text{STROKE} / \text{SHOW} = (2 \times \text{UNDERLAY} + \text{SHOW}) / \text{SHOW}$$

INSTRUCTIONS on how to change the GEAR PINION

- (1) Remove cover plate from right side of gear housing.
- (2) Reposition Adjusting Nut on slotted lever to its maximum stroke - by sliding it to left.
Use 3/8" Spintite socket wrench.
- (3) Rotate handwheel until the kicker arm is furthest away from the needle - and the set screws located in the adapter of the handwheel are vertical and visible from the top. Loosen these two set screws. (Use a 3/32" Allen wrench.) One set screw is visible between the handwheel and the housing. The other is accessible through a clearance hole in the housing.
- (4) Loosen the upper two clamp screws on left side of gear housing - (Screws "A" on figure 1) - (Use a 3/16" Allen wrench) - and as those screws are loosened slightly, the housing will rotate and drop slightly is engaging the driven gear from the pinion.
- (5) Manually turn the driven gear until the slotted lever is in its lowest position, (as in Figure 2).
- (6) Remove the gear pinion by pulling it straight out. The thrust adapter will also be removed at the same time.
- (7) Remove the old gear pinion from the thrust adapter and in its place insert the new gear pinion. Then set that unit (gear pinion and thrust adapter) into the hand wheel adapter and tighten the two set screws on the handwheel adapter. (These were loosened in step #3).
- (8) **NOTE:** If the new gear pinion is **smaller** than the one being replaced, (that is, it is a **higher ratio gear**) it will be necessary to loosen the three clamp screws on the kicker arm casting (Screw "B" on figure 1) and position the kicker arm away from the needle- approximately one inch - temporarily - to assure that the kicker arm blade does not interfere with the needles or the foot as further adjustments are made.
- (9) Rotate the driven gear manually until the slotted lever is in its highest position and is parallel with the cross slide bar - (as in figure 3).
- (10) Maintaining this position, rotate handwheel until the point of the needle, on its descending stroke is 1/8" to 1/4" above the top surface of the needle plate. This is to assure that the needles will engage the newly formed pleat before the kicker arm starts its return stroke.
Then - rotate gear housing upwards so that the driven gear engages the gear pinion properly. Securely tighten clamping screws "A".

As a further check, rotate handwheel manually a few times to make sure that the point of the needle is 1/8" to 1/4" above the top surface of the needle plate when the slotted lever is in its highest position. It may be necessary to re-time the gear and gear pinion by loosening screw "A" and then repeating the above step.

MERTON'S ALTERNATE INSTRUCTIONS TO CHANGE PINION GEAR

(1) Remove cover plate from side of gear housing.

(2) Loosen (3) clamp screws "B" and swing the kicker arm away from the foot.

CAUTION: #2745 Blade Teeth are extremely sharp. It may be wise to cover the teeth with tape temporarily, before making the changes.

(3) Loosen the (3) #948 Cap Screws on the #2702 or #2702-3 Back Support Casting.

(4) Swing the entire Pleater Assembly down and shift it to the extreme right. Take care to clear the #2745 Pleater Blade from hitting anything.

(5) Remove the old pinion gear & thrust adapter.

(6) Replace with new pinion gear and thrust adapter. Tighten Set screws securely.

(7) Swing the entire Pleater Assembly up and to the left so that the Pinion gear engages the #2717A. Temporarily tighten the (3) #948 Cap Screws in the #2702 Back Support Casting.

(8) Swing the Kicker arm so that the #2745 Blade is about and 1" away from the foot. Rotate the hand wheel manually so that the Kicker Arm is in maximum position toward the foot. Loosen the #948 Cap Screws slightly so the you can temporarily disengage the pinion gear.

(9) Rotate the hand wheel manually so the needles, on their downward stroke, are 1/8" to 1/4" above the top surface of the needle plate. Engage the #2717A Gear with the Pinion gear. Tighten the (3) #948 Cap Screws securely. (The slotted lever should be in its highest position)

(10) Position the Kicker Arm so that the teeth of the #2745 Blade is 1/32" beyond the bottom blade. Tighten clamp screws "B" securely.

POSITIONING THE KICKER ARM AND OSCILLATING BLADE

11a Set the slotted lever in its highest position - loosen clamping screws "B" and manually reposition kicker arm so that the teeth of the oscillating blade extend 1/32" beyond the bottom blade. Clearance slots in the oscillating blade should be in-line with the needles. Then tighten screws "B".

11b. The lifting arm may have to be reset so that when the oscillating blade is furthest away from the needle, and that it drops and engages the material as it commences its forward stroke toward the needle. Major adjustment is made by loosening screw "C" on the lifter arm raising or lowering the arm, whichever is required, and tightening the screw. Minor adjustments can be made by loosening screw "D" and repositioning the top blade so that it engages the material properly as the oscillating arm commences its movement toward the needle.

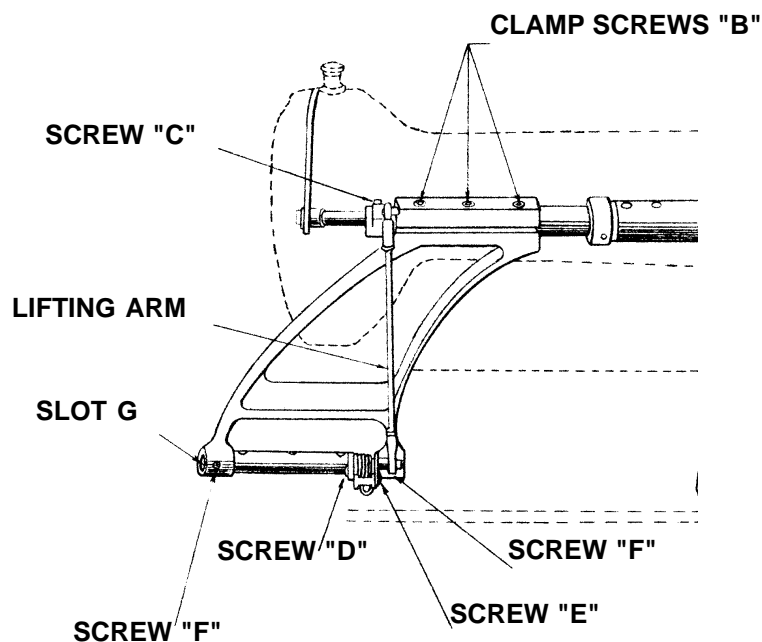
11c. Rotate handwheel until the oscillating blade is positioned all the way in towards the needles. As the kicker arm starts its return stroke, pressure on the blade should be released and the blade should start to lift up - by the action of the lifting mechanism.

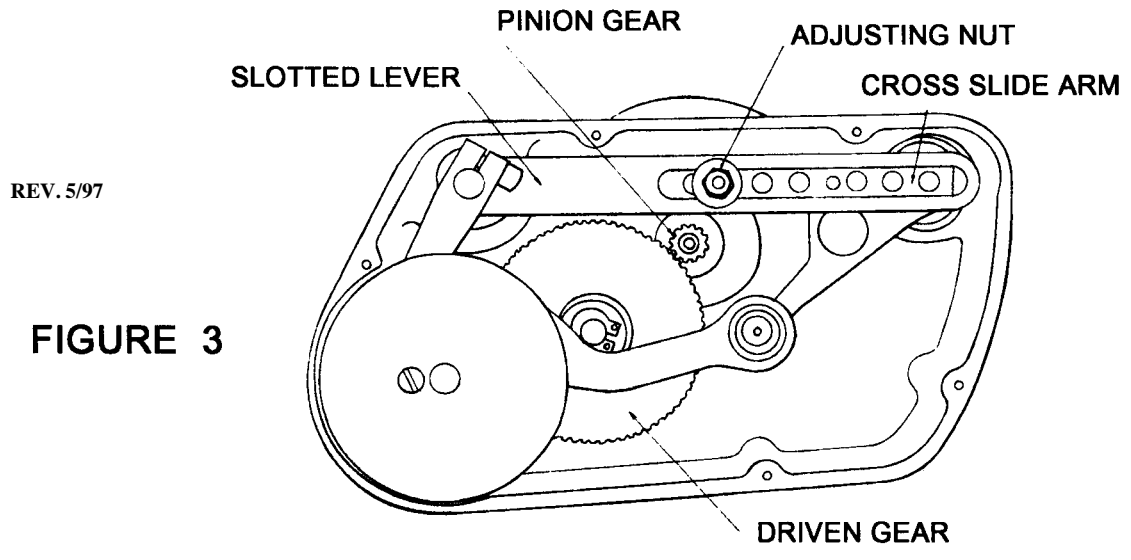
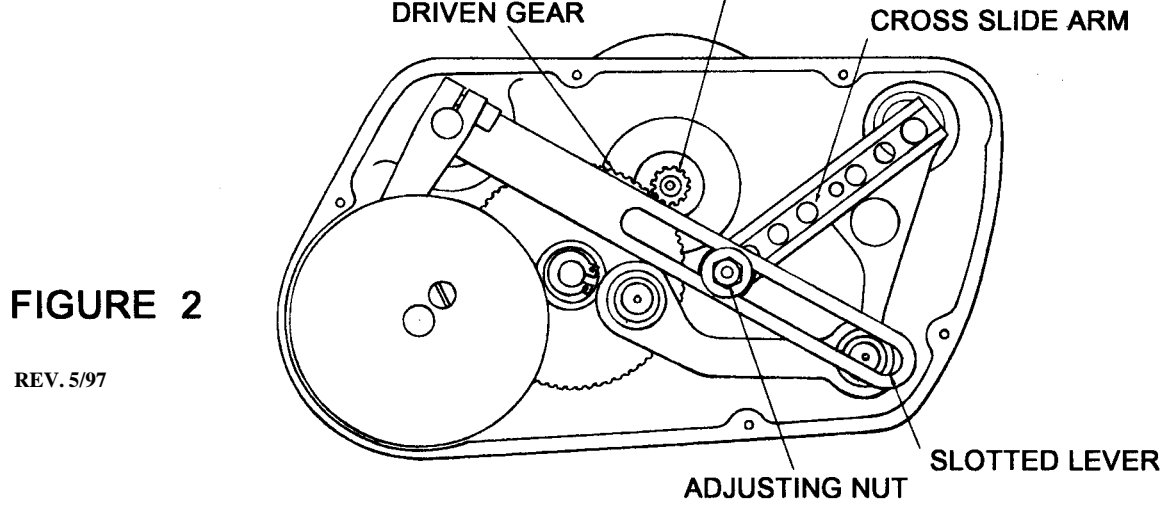
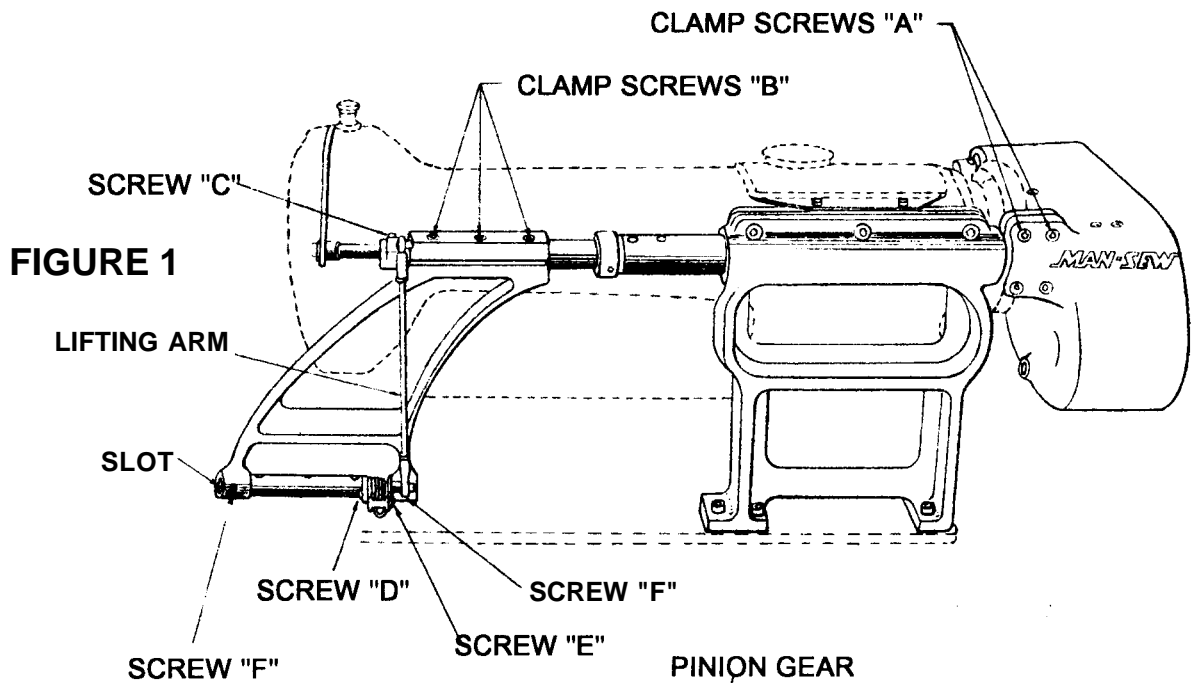
To adjust, loosen screw "E" (see figure 4) and lower the lever. Lowering the lever will reduce pressure and cause the oscillating blade to lift higher. It may be necessary to re-adjust (step c) until a proper compromise is reached. These adjustments are less sensitive on shorter strokes.

TO INCREASE OR DECREASE PRESSURE ON OSCILLATING BLADE

12. Loosen set screw "F" (figure 4). Insert tip of screw driver into slot "G" and turn counter-clockwise to increase pressure or clockwise to decrease pressure on oscillating blade. When desired pressure is obtained, tighten screws "F".

FIGURE 4





POSITIONING THE KICKER ARM AND OSCILLATING BLADE

11a Set the slotted lever in its highest position - loosen clamping screws "B" and manually reposition kicker arm so that the teeth of the oscillating blade extend 1/32" beyond the bottom blade. Clearance slots in the oscillating blade should be in-line with the needles. Then tighten screws "B".

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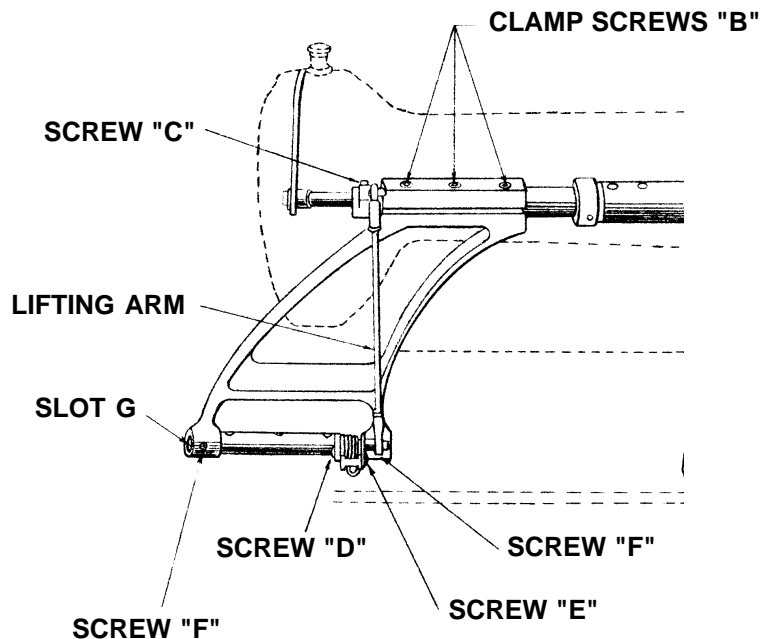
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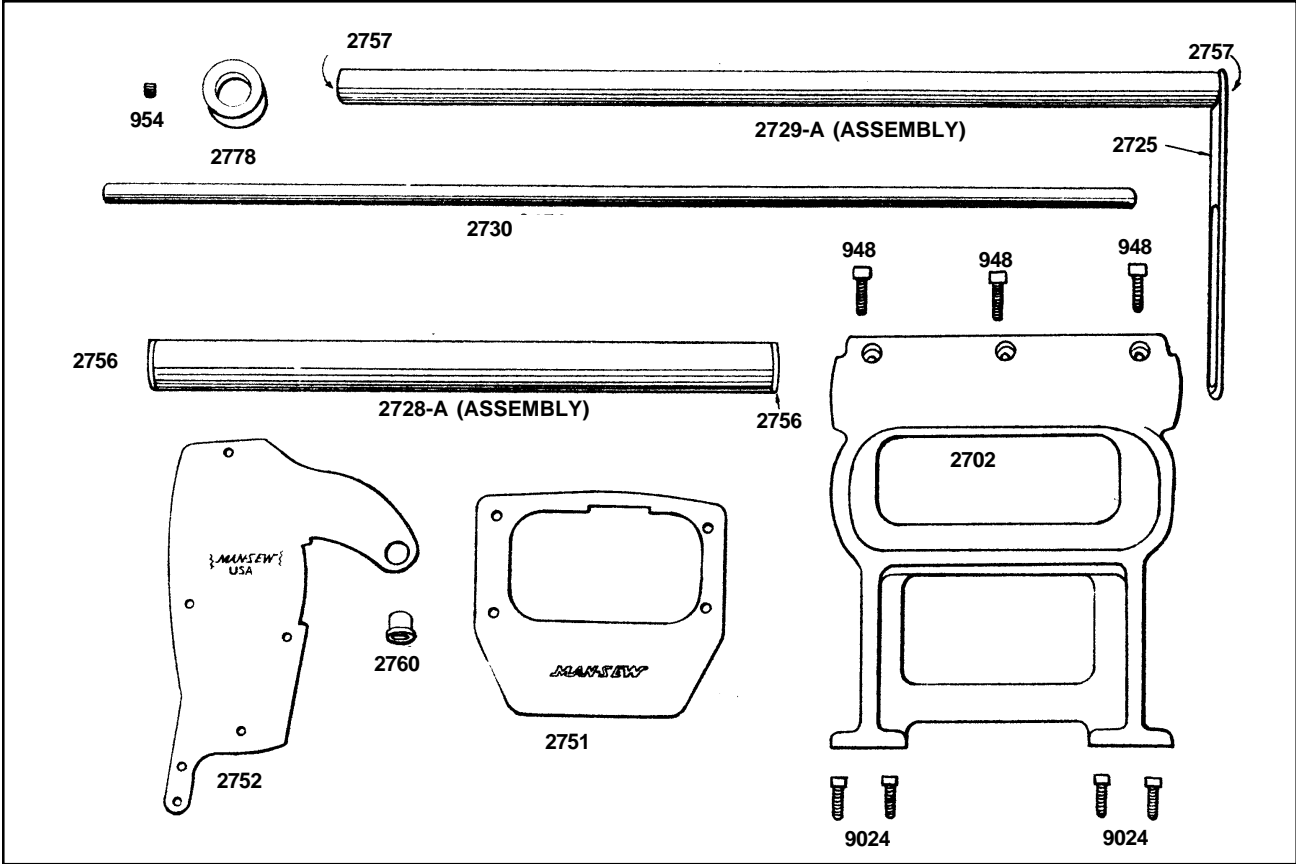
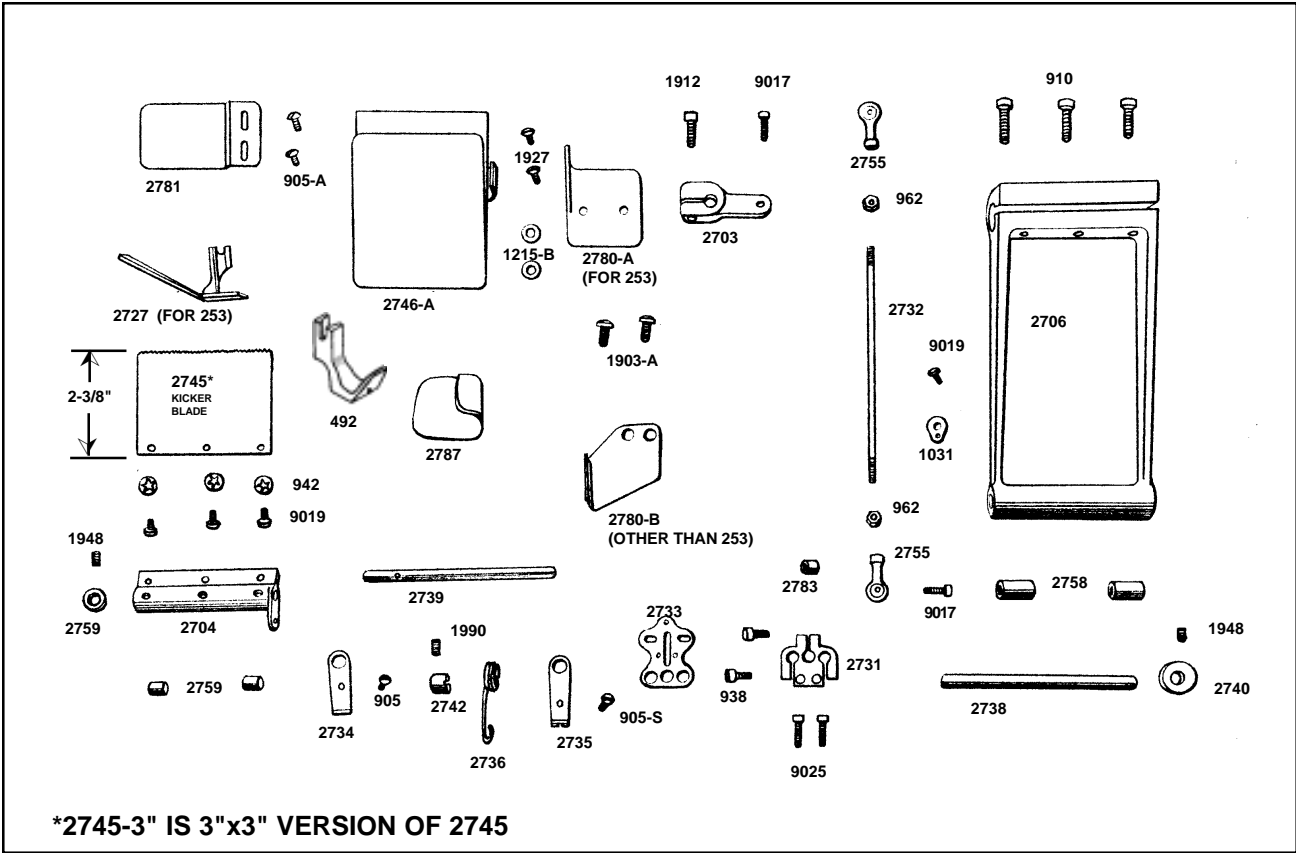
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FIGURE 4





MAN-SEW STYLE 81 PARTS LIST

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>			
2701	Back Casting	2751-A	Casting Support Plate (253)			
2702	Back Support Casting	2751-B	Casting Support Plate (241)			
2703	Blade Pressure Arm	2752-A	Shaft Support Plate (253)			
2704	Blade Holder	2752-B	Shaft Support Plate (241)			
2705	Suspended Bracket	2753	Roller Bearing			
2706	Kicker Arm - Straight	2754	Bearing Cup			
2706-A	Kicker Arm - Curved	2755	Rod End			
2707	Connecting Link	2756	Flanged Bushing (3/8" I.D.)			
2708	Idler Stud	2757	Bushing (5/16" I.D.)			
2709	Cam Spindle Stud	2759	Bushing (1/4" I.D.)			
2710	Cam Spindle	2760	Flanged Bushing (3/8" I.D.)			
2711-A	Cam Holder	2761	Gear - 45 Teeth			
2711-B	Cam Holder Stud	2763	Helical Gear - 18 Teeth			
2712	Cam Follow Arm	2764	Helical Gear - 12 Teeth			
2713	Roller	2765	Stud			
2714	Cam	2766	Locking Collar			
2715	Gear Adapter	2767	Slide Block			
2717	Gear	2768	Washer			
2717-A	Gear Assembly	2769	Dowel Pin - 1/8"			
2718	Gear Hub	2771	Friction Collar			
2719	Gear	2772-A	Gear Stud - 8 Teeth (9 to 1)			
2720	Slide Arm Assembly	2773-A	Gear Stud -12 Teeth (6 to 1)			
2721	Drive Lever Collar	2774-A	Gear Stud - 18 Teeth (4 to 1)			
2725	Adjusting Lever	2785-A	Gear Stud - 24 Teeth (3 to 1)			
2726	Pleater Foot (Replaced by 492)	2777-A	Gear Stud - 36 Teeth (2 to 1)			
2727	Pleater Foot for 253	2778	Collar			
2728	Shaft Support Tube (specify length)	2779-3/8"	Spintite Wrench			
2729-A	Lever & Tube Assm (specify length)	2780-A	Suspended Blade Bracket (253)			
2730	Cam Follow Shaft	2780-B	Suspended Blade Bracket			
2731	Pivot Block	2781	Foot Extension			
2732	Rod End Shaft	2783	Spacer			
2733-1	Blade Adjusting Plate	2784	Collar			
2734	Spring Stop - Short	2785-A	Gear Stud - 24 Teeth (3 to 1)			
2735	Spring Stop - Long	2786	Face Screw			
2736	Spring	2787	Material Guide			
2738	5/16" - Hollow Shaft	1031	Figure 8 Washer			
2739	1/4" Hollow Shaft (4-3/8" Long)	456	Bearing			
2739-A	1/4" Hollow Shaft (5-1/16" Long)	492	Foot			
2740	5/16" Collar	492-WN	Foot (Walking Needle)			
2741	1/4" Collar	6506	Bearing			
2742	1/4" Slotted Collar	6509	3/8" Snap Ring			
2743	Coil Spring	SCREWS:				
2744	Replaced by 6509 Snap Ring - 3/8"	905	1901	1990	962	Nut
2745/FINE	Kicker Blade	905-A	1903-A	1997	456	Washer
2745/COARSE	Kicker Blade	910	1911	9011	516	Washer
2745-3"/FINE	3"x3" Kicker Blade	936	1912	9017	942	Washer
2745-3"/C	3"x3" Kicker Blade	938	1925	9019	1215-D	Washer
2746-A	Bottom Blade Assembly	942	1926	9020	9026	Nut
2748	Flexible Material Support	948	1927	9024		(AN365)
2749	Back Casting Cover Plate	954	1948	9026		
2751	Casting Support Plate	966	1966	9055		