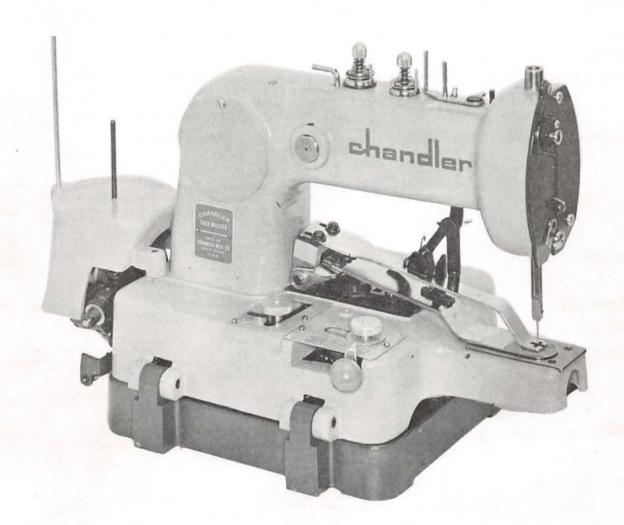
From the library of: Diamond Needle Corp

chandler

INSTRUCTION BOOK & PARTS BOOK TACKERS & BUTTON SEWERS



CLASSES: 543, 546, 548, 552, 554, 555, 558, 560, 600, 660, 710



chandler **

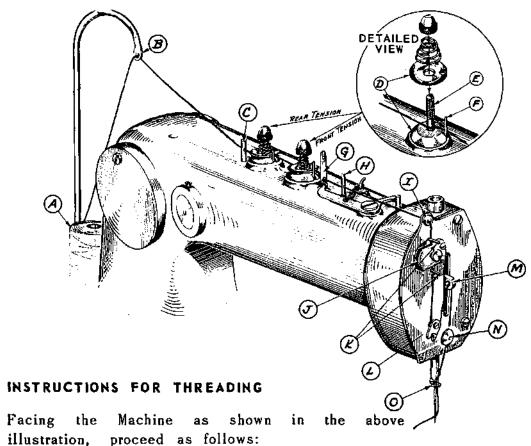
CURRENT PRODUCTION MODELS OF CHANDLER CLASS 600 & 710 MACHINES

FLAT BUTTON SEWERS	Model 710-1	16 stitch, side vib., auto clamp lift.
	Model 710-5 ,	
	Model 710-10	24 stitch, side vib.,
		24 stitch, square pattern, auto clamp lift.
NAAK AND EVE	24 11710 1115	
HOOK AND EYE	Model /10-1HE,	
	Model /10-5HE	12 stitch, side vib., auto clamp lift.
WHIPPING	Model 710-12	24 stitch, for whipping suit buttons.
NECKING	Model 710-1N	
SHANK BUTTON SEWERS	Model 710-15	16 stitch side vib. side loading
	WIOGEI 710-03	
TACKERS	Model 600-15	
	Model 600-25	8 stitch, back & forth
	Model 600-25S	
	Model 600-60	
		12 stitch, combination vib., drapery.
	Model 600-75K D	
	Model 600-95	
BONE RING	Model 600-BR	
		1/2" stroke for extra large bone rings.
IOVERG	14 14 (
BAR TACK	Model 600	Special machines for attaching labels and other
		removable objects. Normally modified square patterns.
BAR TACK	Model 710-70BT	
TWIN NEEDLE FACKER	Model 658 or 758	Full ½ inch bigger stroke. Designed for extra large shank buttons.
		Bulky tacking problems, etc. Specify above machine desired. Change prefix from "600" to "658".
		NOTE: Any of the above machines may be equipped with a built in knife mechanism. Add suffix "K"
	Model 900	
		Please specify needle gauges from $1\frac{1}{4} - 2\frac{1}{2}$ in $\frac{1}{4}$ in increments. Non adjustable.
STAND	Model 2Tc-600-1	Board only
		Complete "K" legs. 110V. Complete "K" legs. 220V.
		minimum to lego too t
CLAMPS		
	Shank button	
	Shank button	Front loading (shank master)
	Snap	Adjustable, round or square
	Sлар	Non-adjustable, square.
	Hook and eye	•
	Whipping	
	Necking	
	Tacking	
	Tacking	Commencating
	_ <i>T</i>	
	Bone ring	
	Flat button	

This edition printed 10,1972



THREADING DIAGRAM

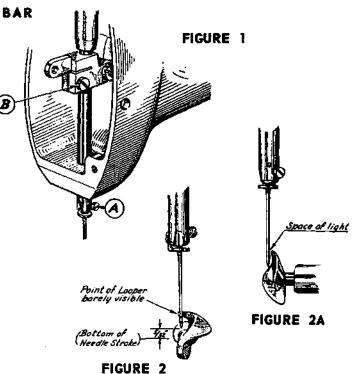


1 From Spool A, pass thread thru Spool Stand Arm B.

- 2 Then forward thru Rear Guide Pin C.
- 3 Slide thread between Rear Tension Disc D on the left hand side of Tension Post E, then to the right hand side of Pin F as above in detailed view.
- 4 Repeat step number 3 for Front Tension.
- 5 Pass thread forward thru hole in Thread Slack Pull-off Lever G, Front Guide Pin H and Thread Guide I in top of Face Plate.
- 6 Slide thread into slot J and down to the right of Pin K.
- 7 Pass down and around Roller in Lower Guide Plate L.
- 8 Insert thru Needle Bar Take-up M (left to right).
- 9 Thread under Tension Disc Face Plate N.
- 10 Catch thread in Needle Bar Thread Guide O and pass it thru the eye of the Needle from front to back. (For all models having Needle Bar Thread Guide)

TIMING LOOPER TO NEEDLE BAR

usual procedure for timing the Looper Needle Bar. is first to time the Looper and then set the (B) height of the Needle to the point of Looper. This is accomplished as follows: l Insert new Needle of full length the Needle Bar hole and tighten Screw A (Fig.1) 2 As preliminary а setting, make sure the point of the Needle is approximately in line with the center of the Looper Shaft when the Needle Bar is at the lowest depth οf stroke.



Adjustment is made by means of Screw B (Figure 1).

- 3 Turn the machine by hand, rotating the Looper counterclockwise, thus raising the Needle 5/32 of an inch from the bottom of its stroke as shown in Figure 2.
 - At this time, the point of the Looper should be barely visible on the left side of the Needle as shown in Figure 2. To adjust, loosen Screws C (Figure 3) and rotate Knurled Looper Holder desired amount in either direction. Tighten Screws C securely.
- 4 There should be a space of light barely visible between the point of the Looper and the Needle as shown in Figure 2A. Adjust for proper clearance by loosening Screw D (Figure 3) and moving the Looper in or out the desired amount.
- 5 As a final setting, now that the Looper is properly timed in relation to the lift (or up stroke), the Needle Bar can be readjusted (as described in preceding item 2) so that the point of the looper when passing the Needle is approximately 1/32 of an inch above the Needle Eye.

This final setting may have to be varied slightly depending upon the weight and softness of the thread or material being used.

The break of the loop (or loop formation) at the Needle Eye may vary according to the thread used. This will possibly require setting the point of the Looper closer or further from the eye of the Needle but within a range of approximately 1/32 of an inch.

TIMING THE FINGER

Lateral Setting - (Controlled by Barrel Cam I, Figure 3)

1 When the Finger has reached its most forward lateral position, the point of the Finger should extend approximately 1/32" beyond the front edge of the slot in the Throat Plate as shown below in Figure 3A.

To adjust, loosen Screw EA (Figure 3) and move Shaft F forward or backward the desired amount. (In moving Shaft F forward, make sure that Eccentric Finger G does not bind against shoulder of Eccentric J, otherwise Finger G will have to be moved back the same amount Shaft F is moved forward.)

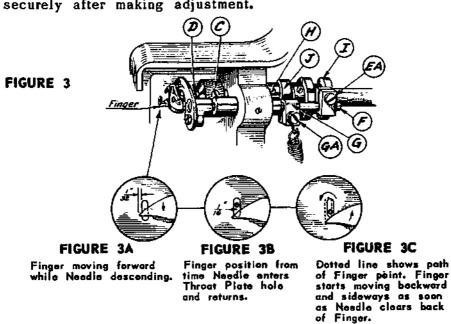
Radial Setting - (Controlled by Eccentric J, Figure 3)

2 When the Needle is at the very bottom of its stroke there should be approximately 1/16" clearance between the Needle and the back edge of the Finger as shown in Figure 3B.

Tc adjust, loosen Clamp Screw GA (Figure 3) and move the Finger into correct position, and tighten Clamp Screw GA securely.

Turning the machine slowly in the direction of normal operation, observe carefully that at the instant the point of the Needle has cleared the Finger, the Finger must start its counterclockwise movement. The Finger should move backwards and sideways at the same time. Dotted line in Figure 3C shows approximate path of Finger point. Barrel Cam I must be adjusted to pull Finger sideways at the same time that Eccentric J moves Finger backward.

To adjust, loosen 3 Set Screws H (Figure 3) and retard or advance Finger Eccentric on Shaft the desired amount. Retighten Screws securely after making adjustment.



MECHANICS INSTRUCTIONS

THREAD LOCK TIMING ADJUSTMENT

When the Needle Bar has ascended to within 1/8 or 5/32 inch from highest point of the of the Needle Bar stroke completion On of the last stroke of the sewing cycle, the thread should be locked by the forward pressure of Plunger A against Plate B (Figure 1A).

The Thread should be locked when the machine stops, otherwise the thread will not break when the Clamp is lifted.

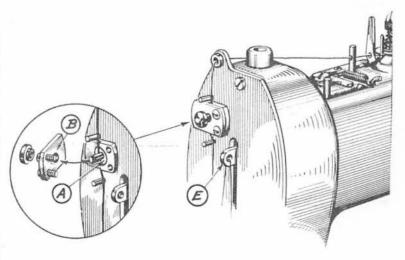
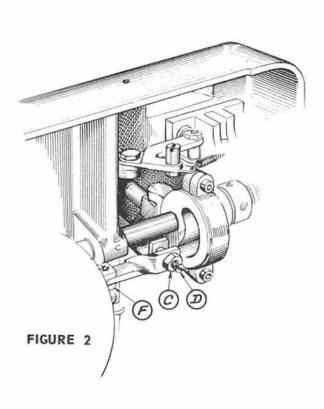


FIGURE 1A

FIGURE 1

Caution: Excessive pressure of the Plunger on light or weak thread will have a tendency to fracture the thread causing excessive thread breakage.

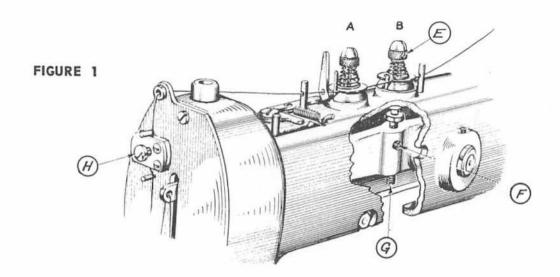
To adjust, loosen Lock Nut C (Figure 2) and turn Adjusting Screw D in or out the desired amount. Be sure to tighten Lock Nut C securely.



Note: Machines are usually equipped with light Lock Spring for use on light thread. For heavy threads use heavier Lock Spring (See Plate 1).

On resuming the first stroke of the new sewing cycle, the Thread Lock must release the thread some time before the Needle Bar reaches the lowest point of the stroke so that the thread is not held tight when the Take-up E (Figure 1) above starts its return upward stroke.

Bracket F (Figure 12) is provided with slots so that the Trip Lock Lever may be retarded or advanced for proper timing.



TIMING OF TOP INTERMITTENT TENSION

On the top of the machine there are two thread tension adjustments...Rear Tension B and Front Tension A (See Figure 1). Rear Tension B is an intermittent thread locking tension which locks the thread prior to the end of each stitch. This prevents the Looper from stealing thread from Spool instead of pulling up the loop at the end of each stitch. The amount of tension for locking the thread is factory set reasonably tight by means of Set Screw E (Figure 1) therefore, do not disturb or attempt to utilize Rear Tension B for adjusting the normal tension explained below. However, the time at which the thread is locked by Tension B may be adjusted as follows:

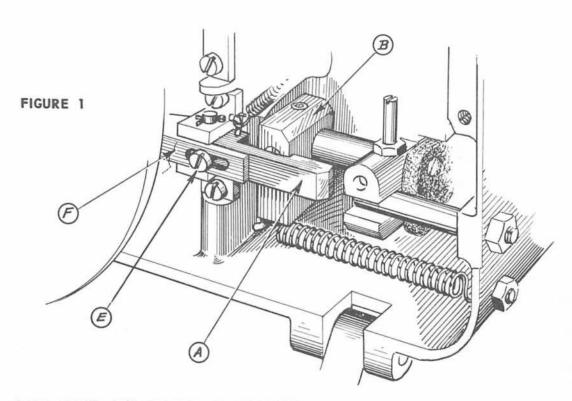
Loosen Set Screw F (Figure 1) and turn Adjusting Screw G up or down until Tension B locks the thread when the Needle Bar has ascended to within 5/32 of an inch from the top of the Needle Bar stroke on light thread but 1/8 of an inch or less on heavy thread.

To prevent thread breakage or extremely light thread, the Intermittent Tension should release the thread when the Needle Bar is at least 5/32 of an inch from the top of its stroke.

ADJUSTMENT OF NORMAL THREAD TENSION

Tightness of the stitch is regulated by Front Tension A. If the Tension Adjustment is too tight the Looper will snap the thread, if too loose the knots on the under side of the button will be loose. Adjustment is made as follows:

Turn handwheel at the end of the Mainshaft until Rear Tension B is in "UP" position. Lower the Button Clamp so the Thread Lock H on the Face Plate is open (center plunger is released). Pull the thread at the Needle to be sure it pulls thru with slight tension. If tension is too tight or too loose, turn Tension A up or down until proper tension is achieved.

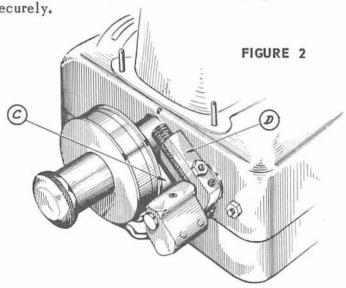


STOP KICK-OFF FINGER MECHANISM

On completion of the Button Sewing Cycle, Latch A should release Block B (Figure 1) just as Stop Finger C (Figure 2) has cleared Bumper Spring Holder D. The illustration shows an earlier model but the same in structions will apply to all models.

To advance moment of release, loosen Screw E (Figure 1) and move Kick-off Finger F to the left.

To retard moment of release, move Kick-off Finger F to the right. Tighten Screw E securely.



AUTOMATIC CLAMP LIFTER MECHANISM

Automatic Operation

To set the automatic clamp lifter mechanism in the automatic operating position (or single pedal control) insert stud A in the forward hole of connecting strap B as illustrated in Fig. 1. With stud A in this position, the amount of clamp lift is controlled by loosening check nut C and turning adjusting nut D in or out as required,

Adjustment of the amount of clamp lift may necessitate a compensating adjustment of the thread slack kick pin H Fig. 2 in order to maintain the proper amount of thread take-off.

The automatic lifter actuating bracket E Fig. 1, controls the timing of the lowering of the clamp in relation to the first needle bar stroke, and the rising of the clamp on the final needle bar stroke. For proper timing, loosen two screws F Fig. 1 and swing bracket E so that its drop-off point is approximately on the centerline of the roller G as shown in Fig. 1A.

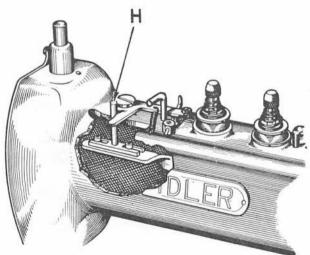
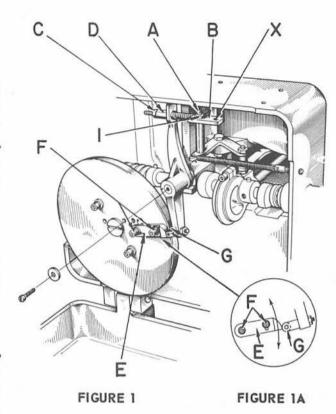


FIGURE 2



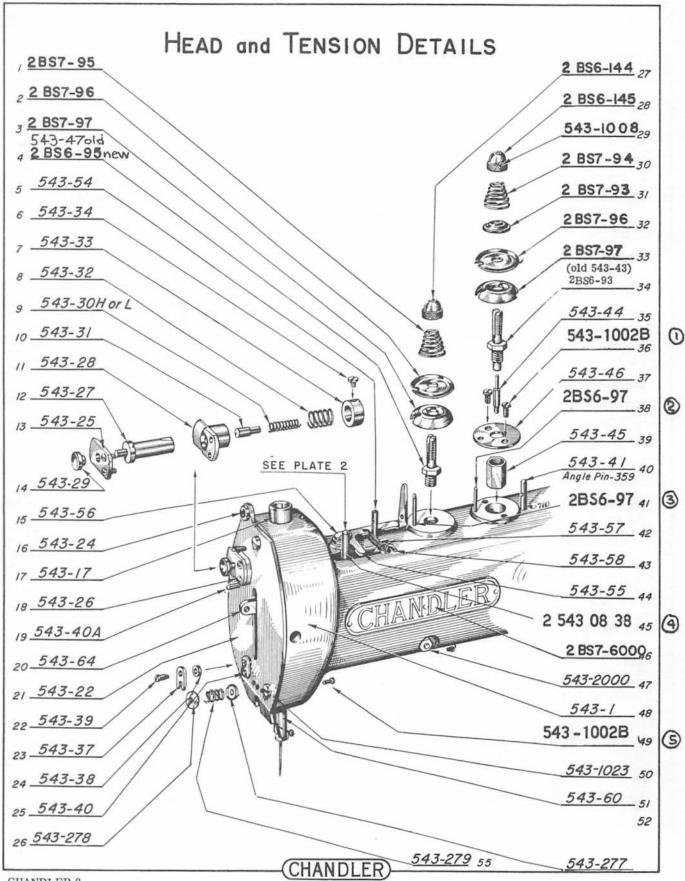
Manual Operation

To convert the machine from automatic to manual clamp lift (or two pedal control) remove nut I Fig. 1, lift connecting strap B and insert stud A in hole X. Replace nut I and tighten securely. The automatic function is now inoperative, since roller G no longer contacts bracket E.

Adjustment for the amount of clamp lift is now made by means of the adjusting screw in the lifting bracket 543-213 located in the base of the machine (See parts plate 9).

Either of the above adjustments may necessitate a compensating adjustment of the thread slack kick pin H Fig. 2 in order to maintain the proper amount of thread take-off.

BASIC COMMON PARTS



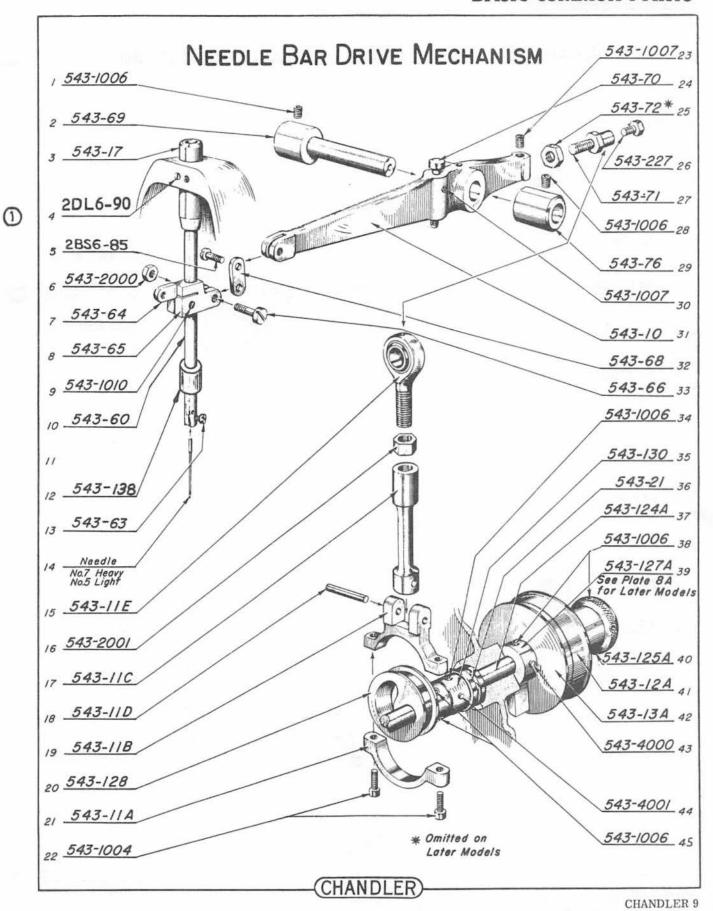
CHANDLER 8

CHANGES: 08.1972

1. was 543-1002A

2. was 543-35 3. was 543-35

4. was 543-84 5. was 543-1002A



CHANDLER 10

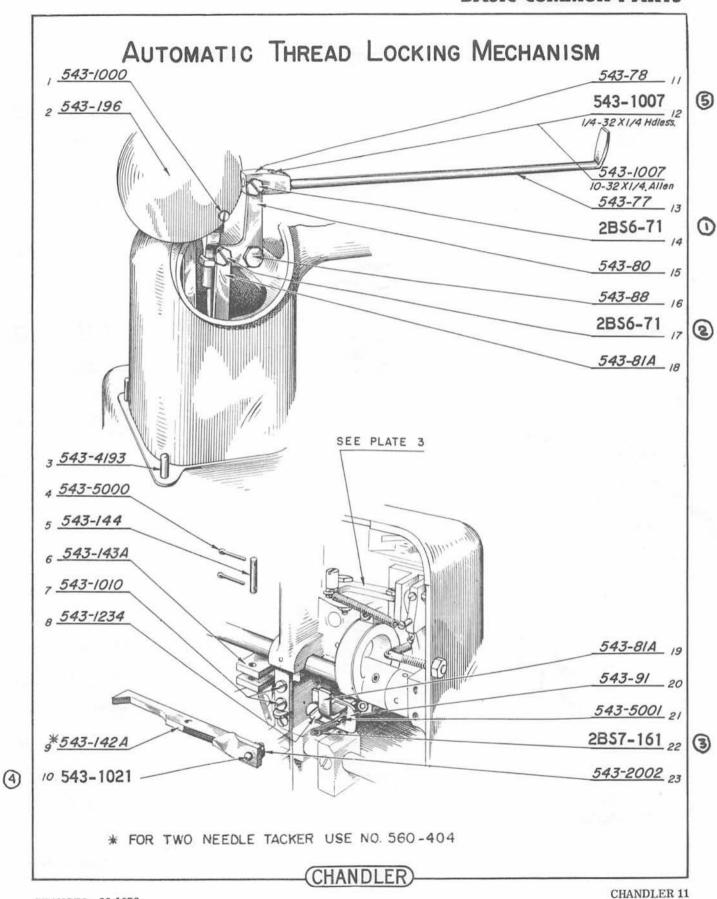
CHANGES 08,1972

1. was 543-90 2. was 543-92A

3. was 543-84

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BASIC COMMON PARTS



CHANGES: 08.1972

5. was 543-1013

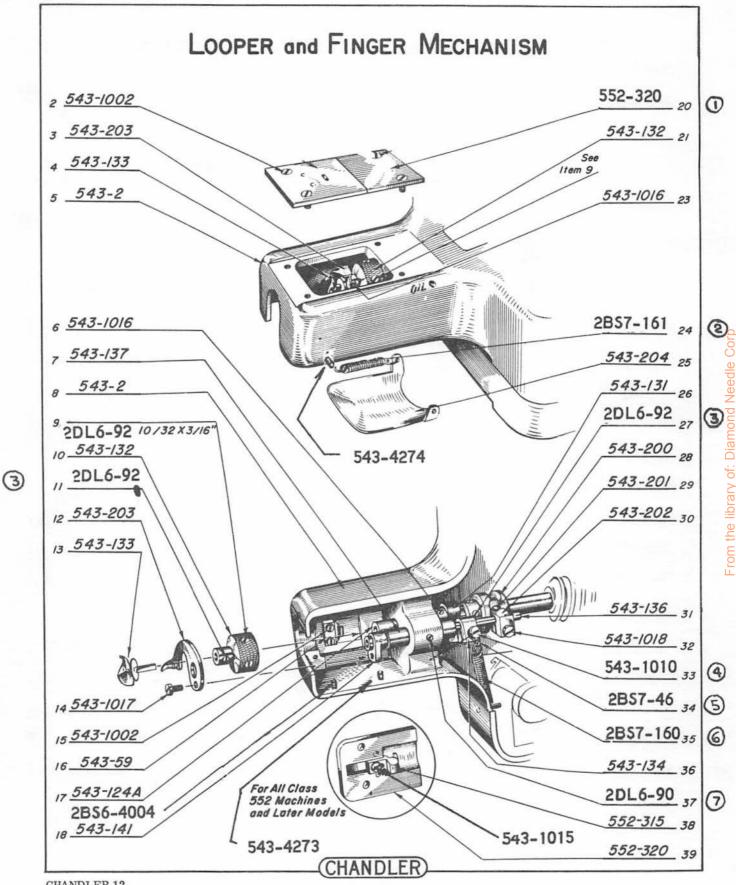
^{1.} was 543-90

^{2.} was 543-90

^{3.} was 543-169

^{4.} was 543--1012

BASIC COMMON PARTS



4. was 543-1018

5. was 543-151

CHANDLER 12

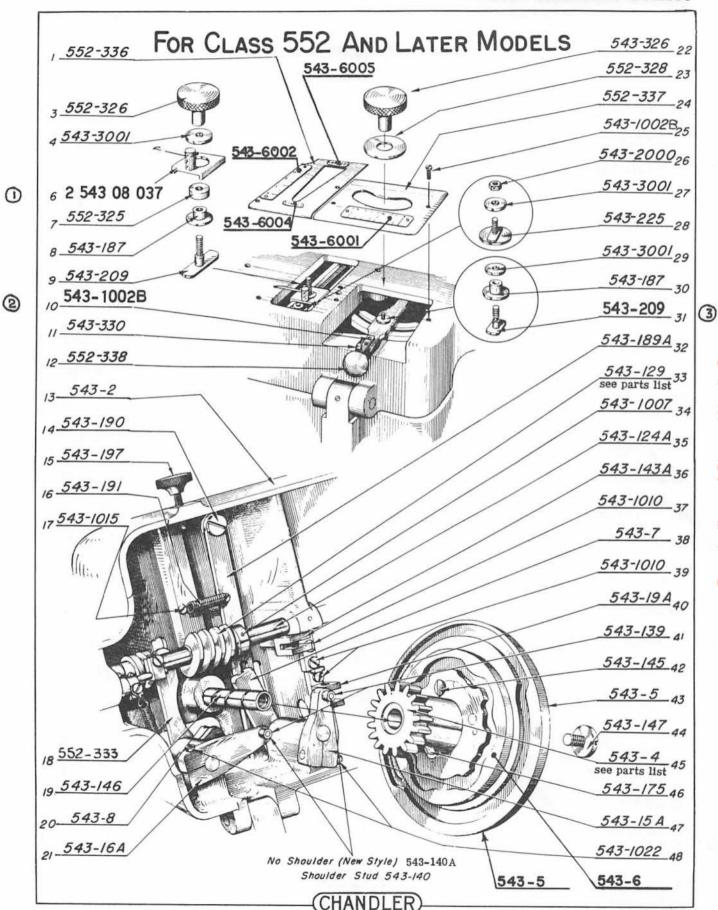
CHANGES: 08.1972

^{1.} was 543-121 & 122

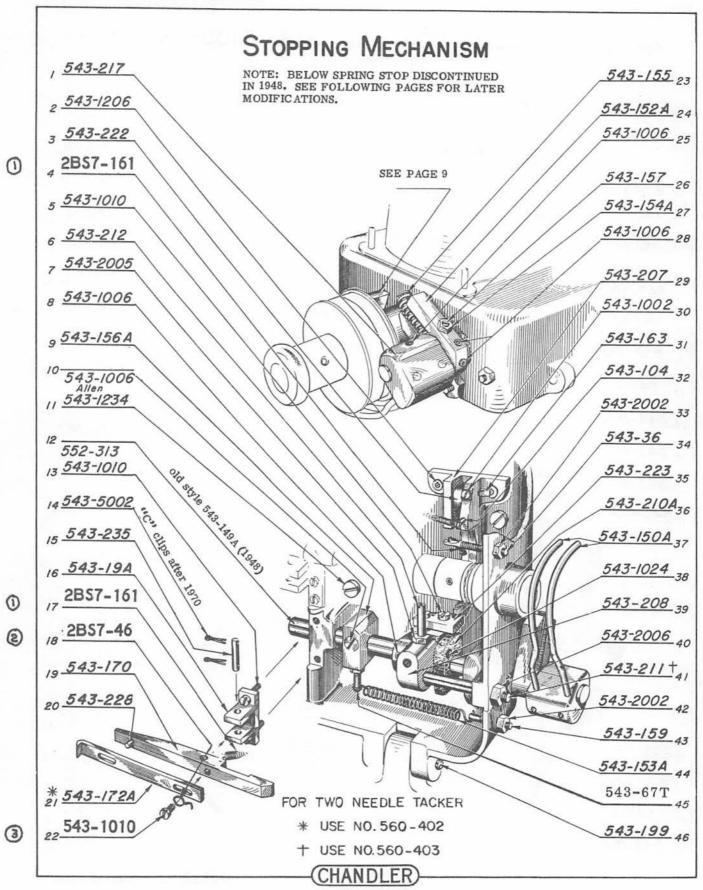
In 1968 needle plate was changed to one piece

^{2.} was 543-205 3. was 543-1016

^{6.} was 543-135 7. was 543-1003



CHANGES: 08.1972 1. was 552-329 2. was 543-1002A 3. was 543-184 CHANDLER 13



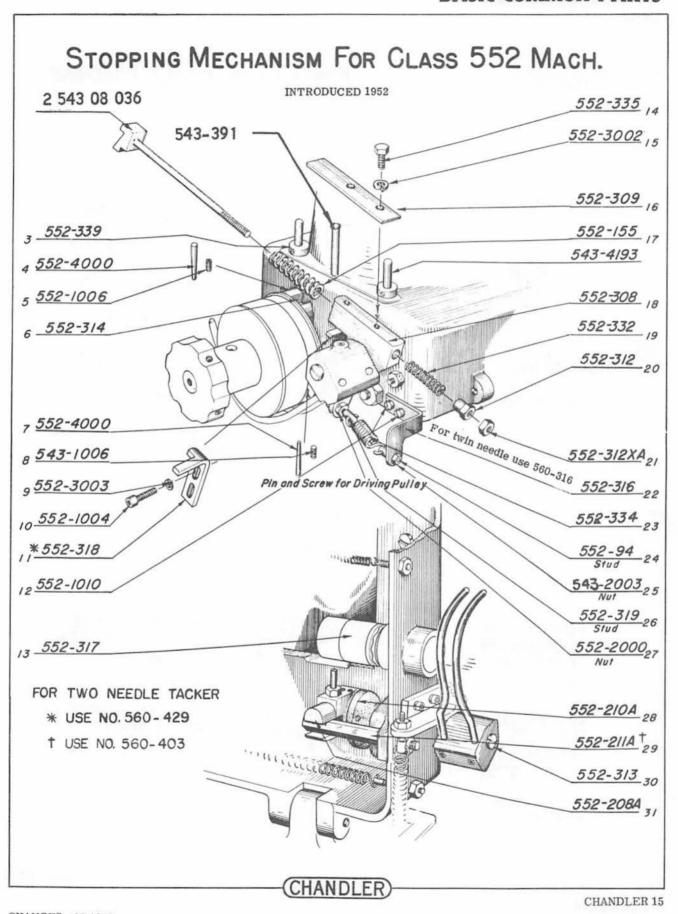
CHANDLER 14

CHANGES: 08.1972

1. was 543-169

2. was 543- 20

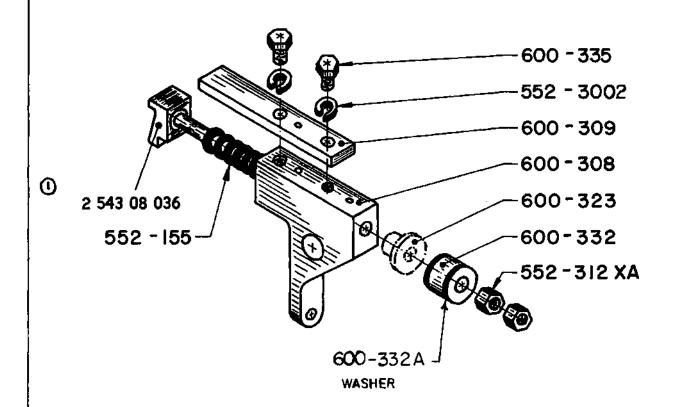
3. was 543-1018 4. was 543-235 (after 1970, "C" clips used)



CHANGES: 08.1972 1. was 543-311, also see assy dwgs

STOPPING MECHANISM FOR CLASS 600 MACHINE

INTRODUCED 1971

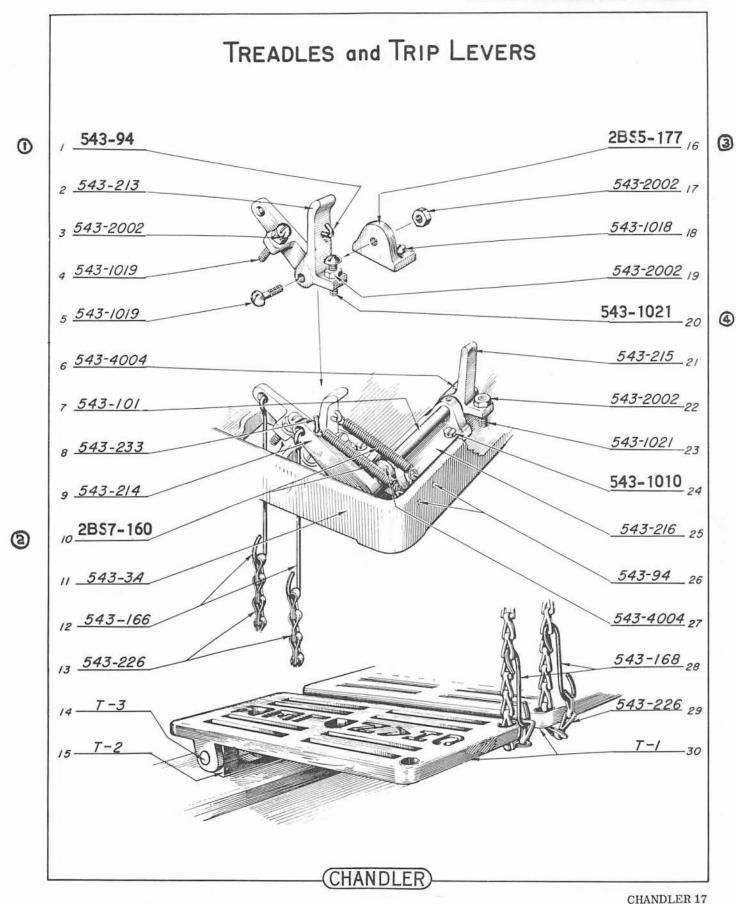


FOR THOSE WISHING TO CONVERT THEIR CLASS 552 CUSHIONSPRING HOLDERS, PART NO. 600-323 ADAPTER MUST BE PURCHASED. (spring no. 552-332 will be discontinued.)

CLASS 552 REBOUND FINGER STOP GUIDE (552-309) WILL BE REPLACED BY A NEW ONE (600-309), WHICH IS HEAVIER. NEW SCREWS MUST ALSO BE PURCHASED (600-335).

SEE PAGE 34 FOR ASSEMBLY NUMBER FOR COMPLETE UNIT.

CHANDLER)

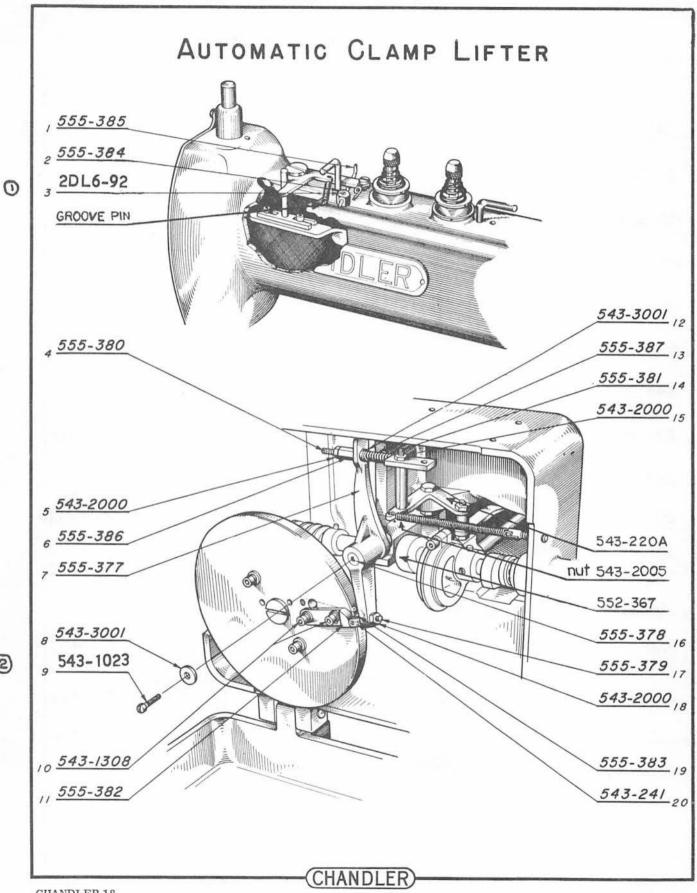


CHANGES: 08,1972

^{1.} was 543-93

^{2.} was 543-79

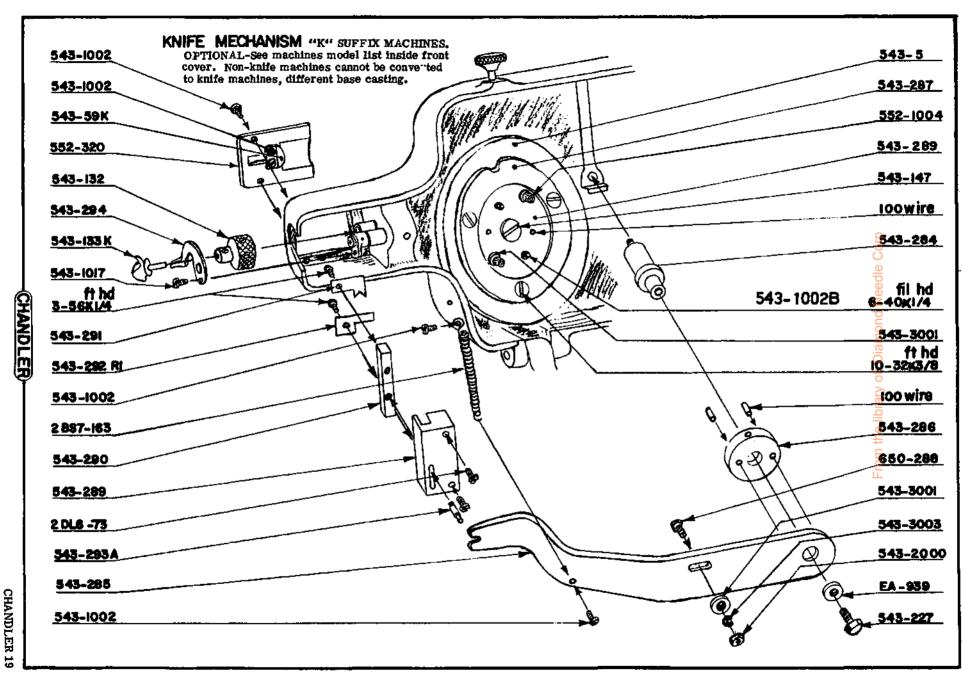
^{3.} was BS-77 4. was 543-1019



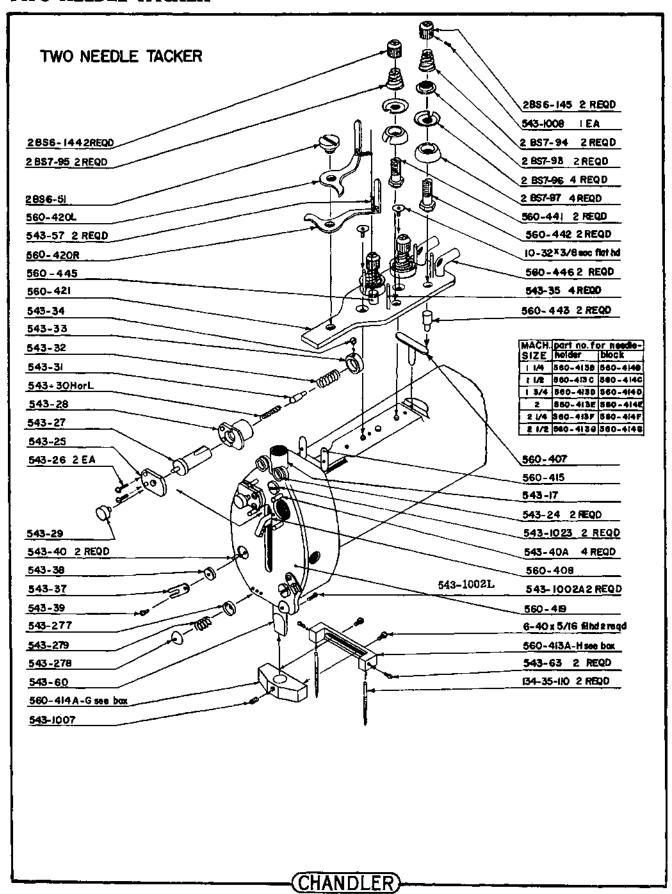
CHANDLER 18

(2)

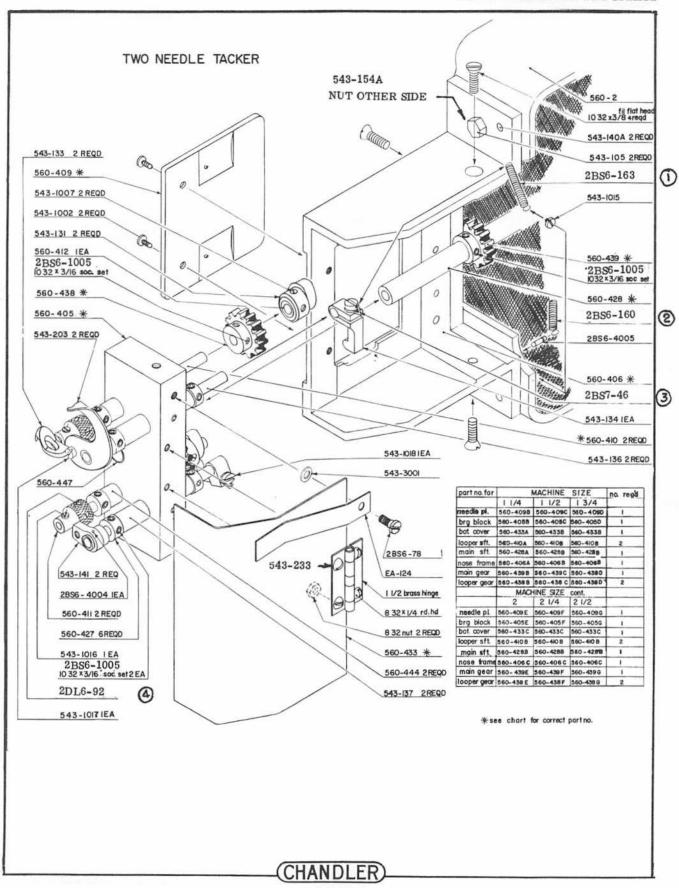
CHANGES: 08.1972 1. was 543-1016 2. was 543-1018



TWO NEEDLE TACKER



TWO NEEDLE TACKER



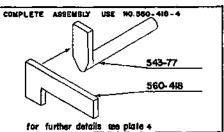
CHANGES: 08.1972

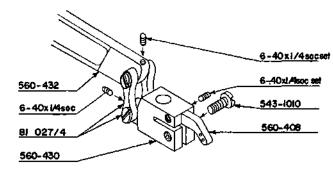
1. was 543-92A

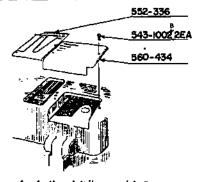
2. was 543-169

3. was 543-151 4. was 543-1016

TWO_NEEDLE TACKER PARTS THAT DIFFER FROM STANDARD

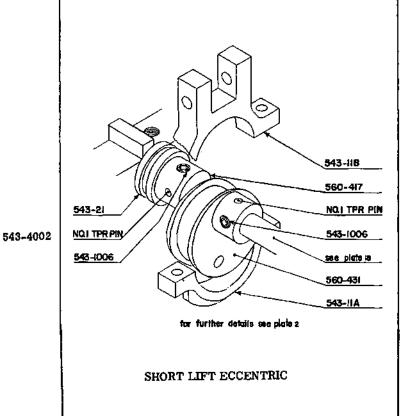


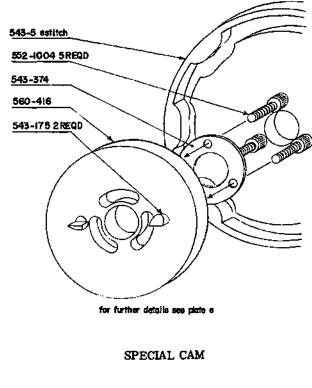




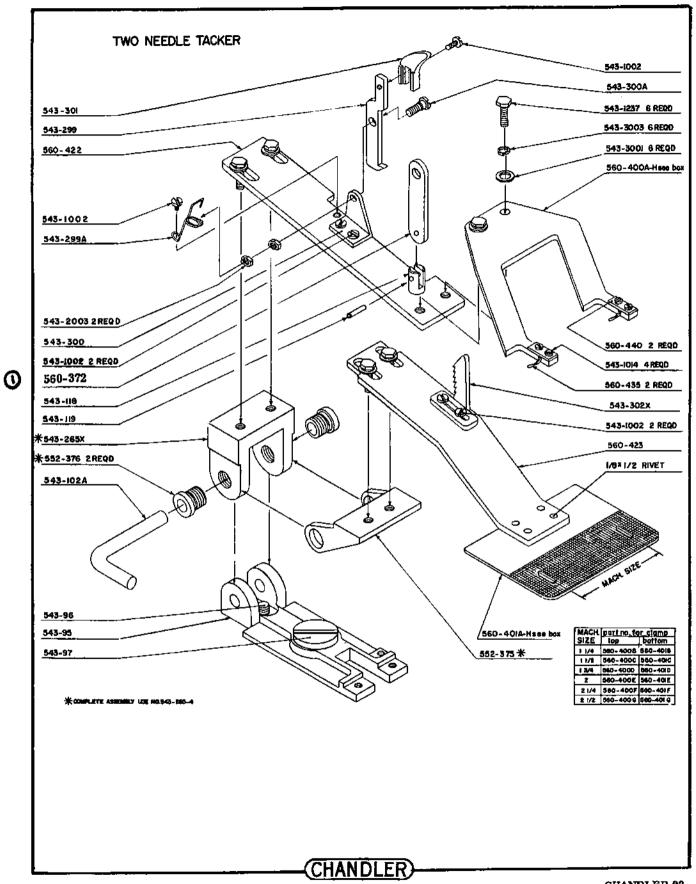
forfurther details see plate 2

for further details see picte 6

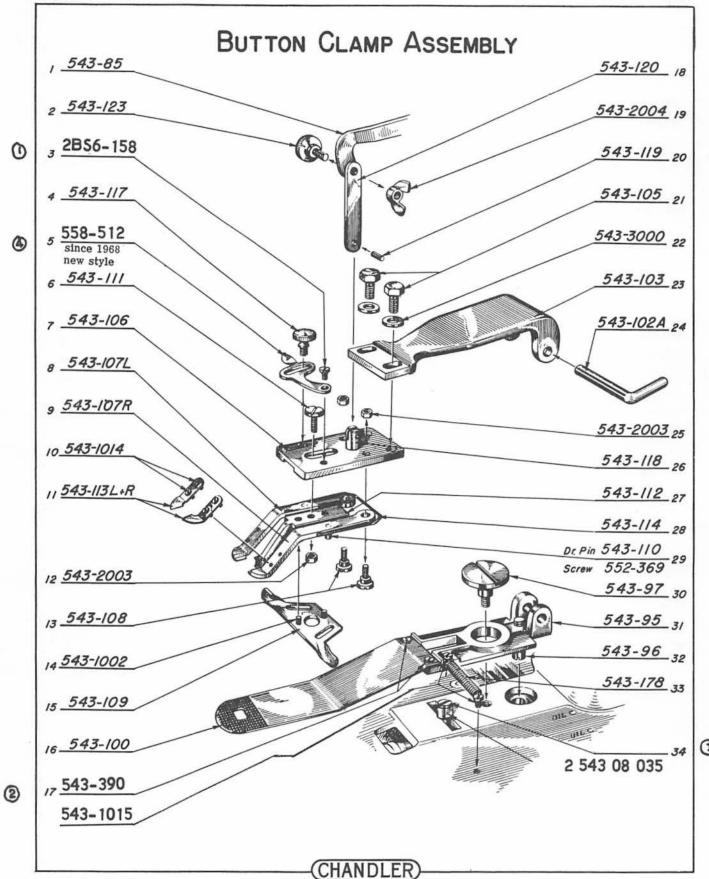




CHANDLER



CHANGES: 08.72 1, was 543-372 **CHANDLER 23**



CHANDLER 24

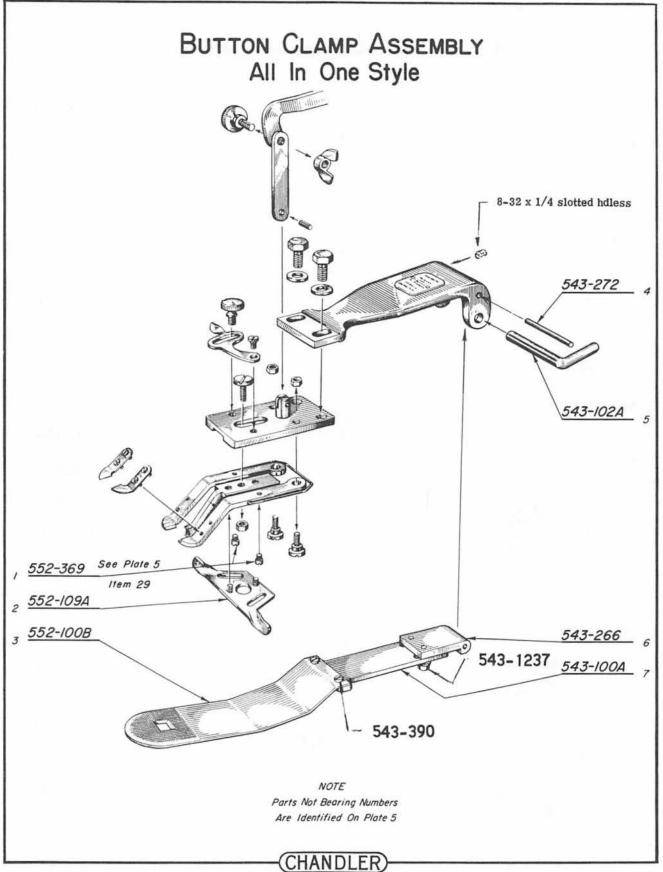
CHANGES: 08.1972

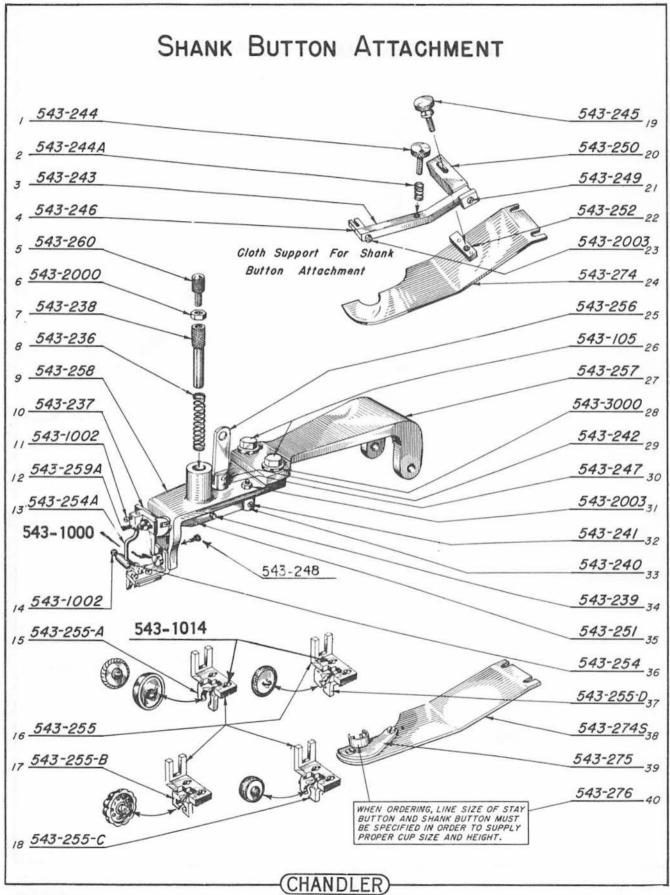
1. was 543-116

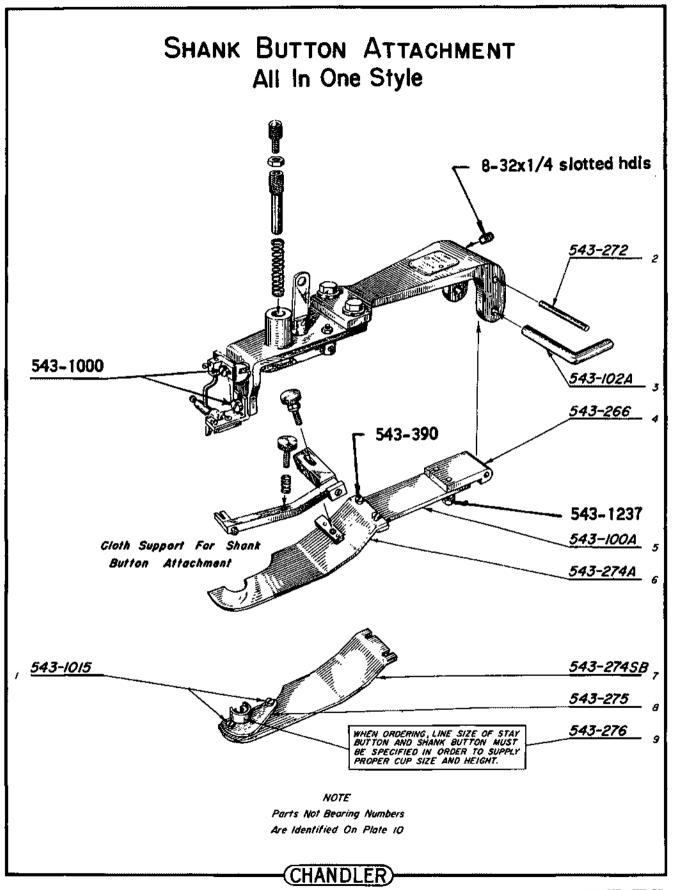
2. was 543-1015 3. was 543-98 & 543-99

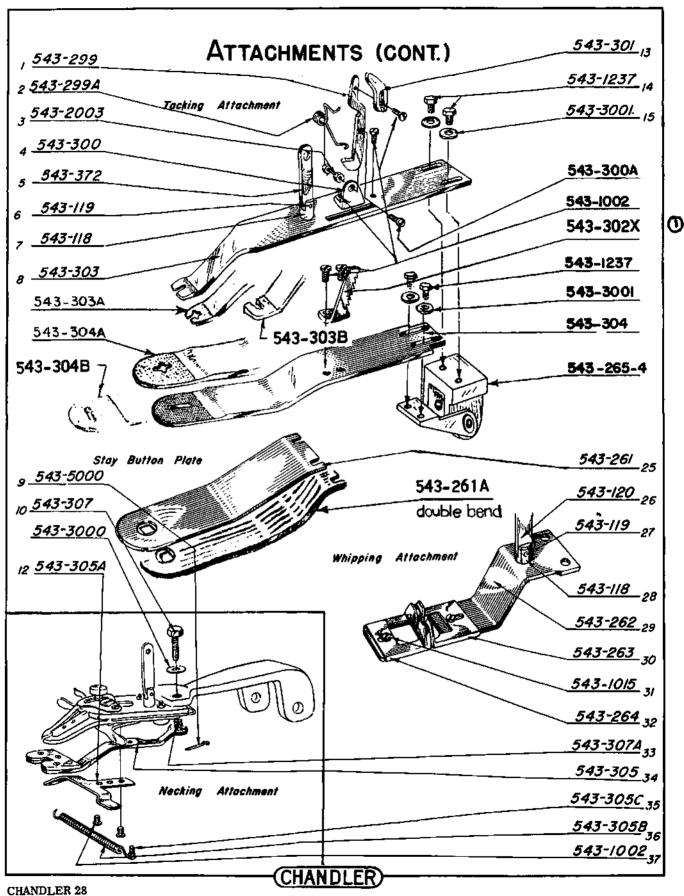
4. was 543-115

3

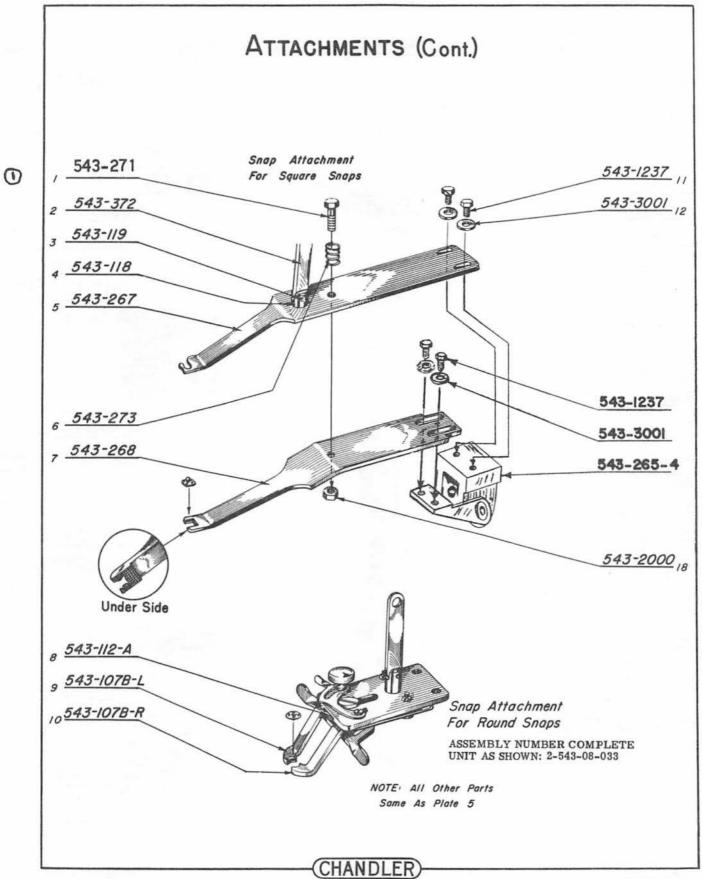




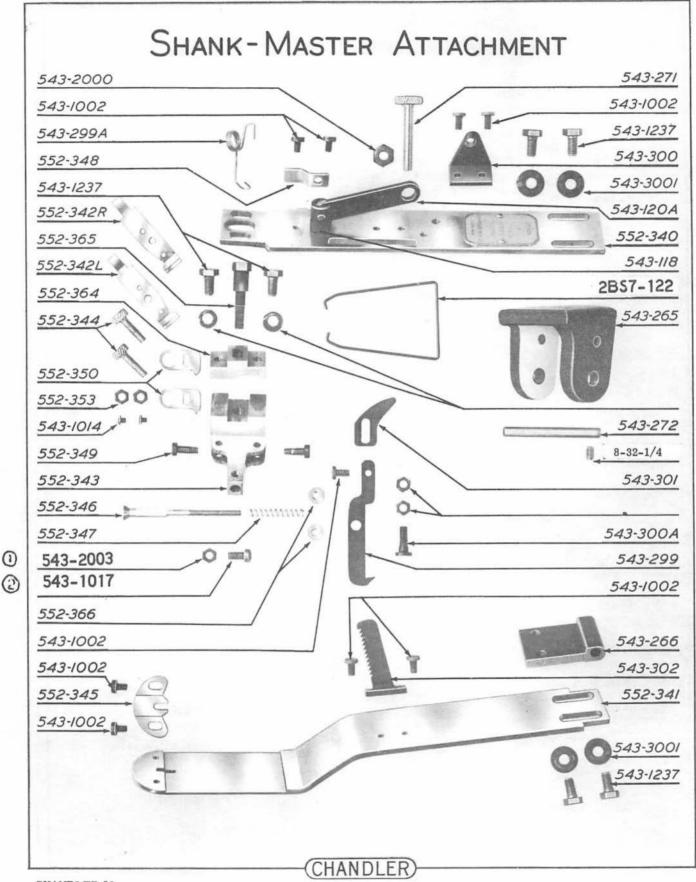




CHANGES: 08.1972 1. was 543-302



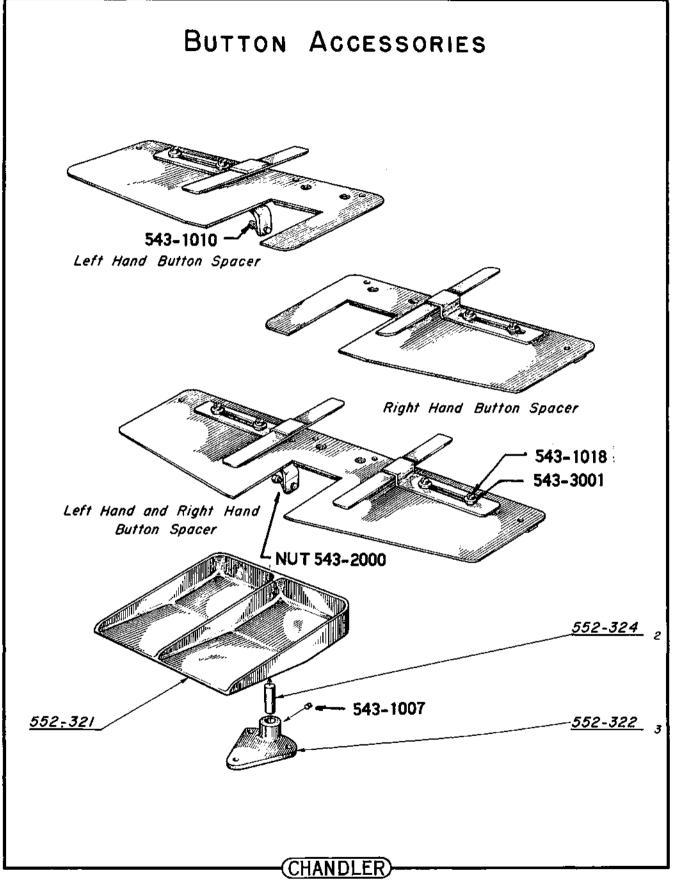
CHANGES: 08.1972 1. was 543-1236 CHANDLER 29

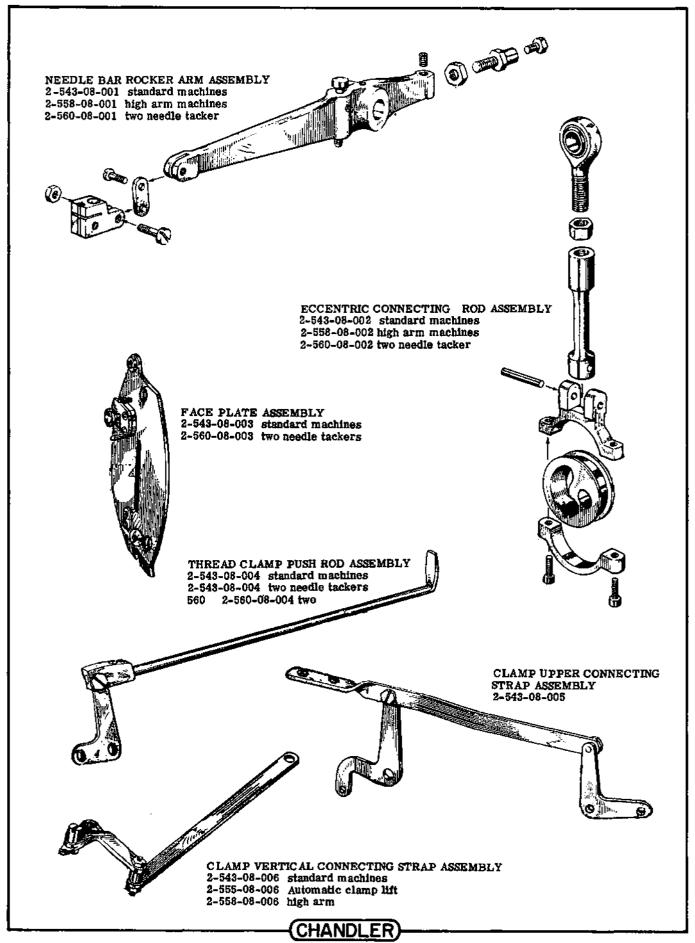


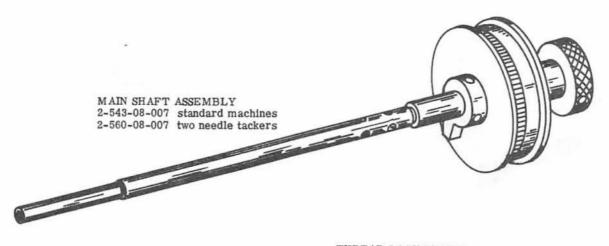
CHANDLER 30

CHANGES: 08.1972 1. was 552-353

2. was 552-352 3. was 552-351 ASSEMBLY NUMBER FOR ABOVE ENTIRE UNIT: 2-543-08-034







FINGER SHAFT ASSEMBLY 2-543-08-008 standard machines 2-560-08-008 two needle tackers

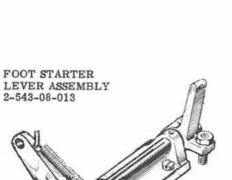


STOP SHAFT BLOCK ASSEMBLY 2-543-08-010

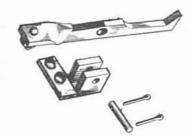




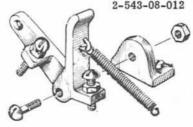
STOP SHAFT QUIDE BLOCK ASSEMBLY 2-543-08-011

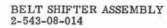


THREAD LOCK FINGER ASSEMBLY 2-543-08-009 standard machines 2-543-08-009 two needle tackers

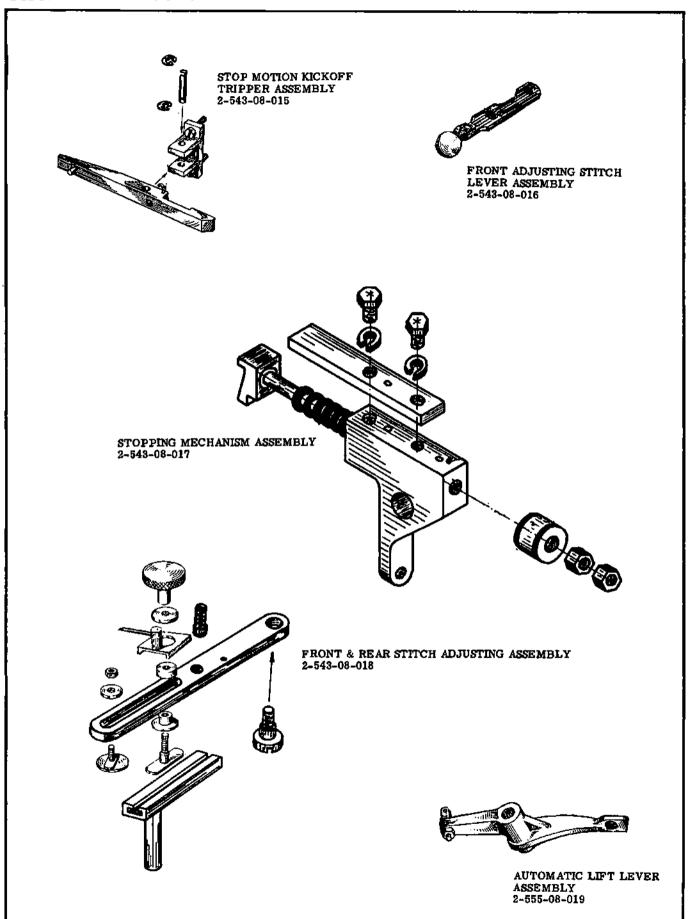


CLAMP LIFTER LEVER ASSEMBLY 2-543-08-012









CHANDLER)

ASSEMBLY GROUPS

THREAD TENSION



REAR THREAD TENSION ASSEMBLY 2-543-08-020









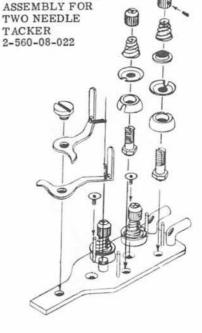




FRONT THREAD TENSION ASSEMBLY 2-543-08-021

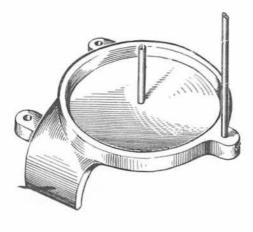








THREAD STAND ASSEMBLY 2-543-08-023 standard machines 2-560-08-023 two needle tackers

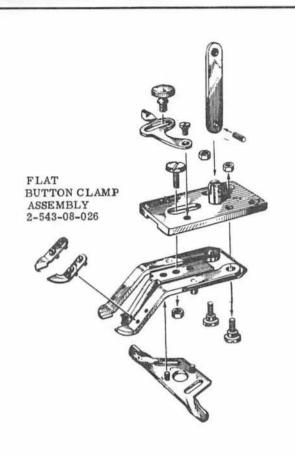


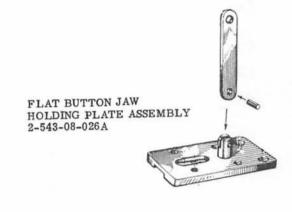
FRONT CAM ARM ASSEMBLY 2-543-08-024





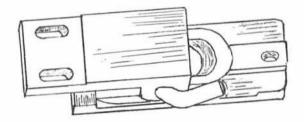
REAR CAM ARM ASSEMBLY 2-543-08-025



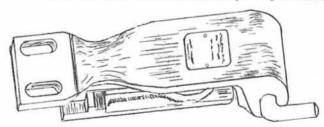




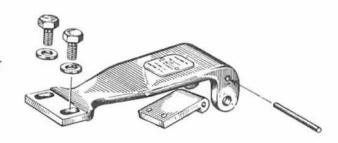
BUTTON CLAMP BASE (short type)1 More stablility but less reach. 2-543-08-26C for Flat Buttons 2-543-08-26D for Shank Buttons(casting ears longer)

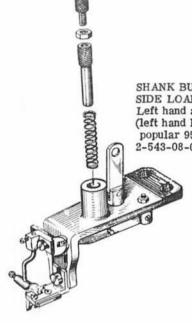


BUTTON CLAMP BASE (long type)2 Less stability, more reach. 2-543-08-026E for flat buttons 2-543-08-026F for Shank Buttons (casting ears longer)

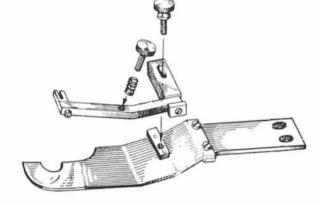


BUTTON CLAMP TOP HINGE ASSEMBLY 2-543-08-027



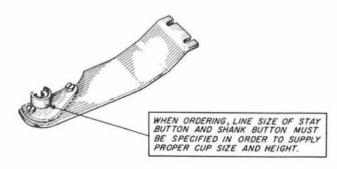


SHANK BUTTON CLAMP ASSEMBLY SIDE LOADING.
Left hand and right hand loading available. (left hand loading is shown and is most popular 95% of the time)
2-543-08-027A

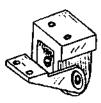


STAY BUTTON CLAMP CLOTH SUPPORT ASSEMBLY 2-543-08-027C





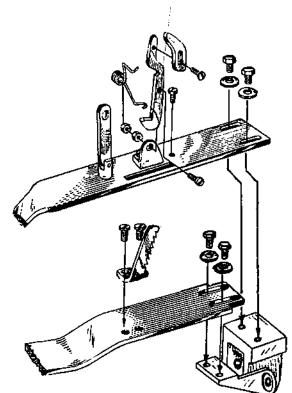
CLAMP HINGE ASSEMBLY 2-543-08-028



BACK & FORTH TACKING CLAMP ASSEMBLY 2-543-08-029



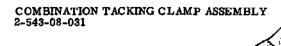




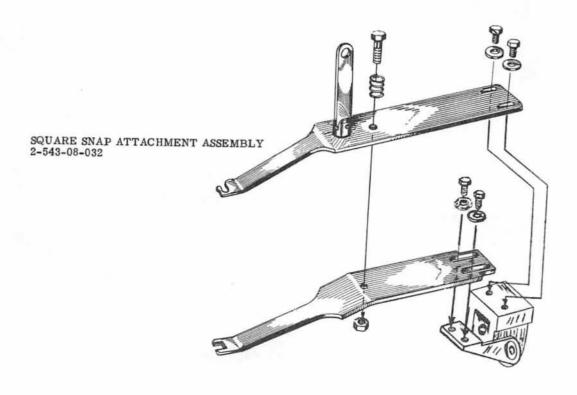
SIDE MOTION TACKING CLAMP ASSEMBLY 2-543-08-030

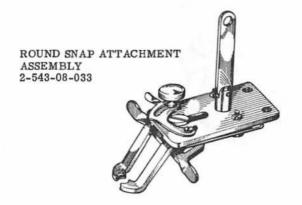














CLAMP SHIFTER LEVER STUD ASSEMBLY 2-543-08-035



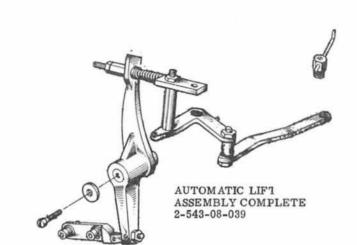
REAR STITCH INDICATOR ASSEMBLY 2-543-08-037

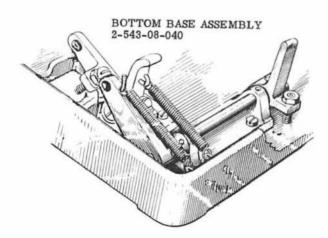






THREAD SLACK KICKPIN ASSEMBLY 2-543-08-038





GEAR & WORM ASSEMBLY Specify stitch count 2-543-08-041





ADDITIONAL NOTES:

NEEDLE BARS:

There are three types of needle bars available for the Chandler tackers and button sewers.

543-60

Regular needle bar

2. 543-60A

Special long needle bar for high arm machines, classes 558, 658

3. 543-60D

Special large needle hole for extra heavy needle. Used on many tackers — classes 555-75, 555-75K, 600-75, & 600-75K Needle code: 332lgCF-No. 160

RECOMMENDED NEEDLES:

Use only genuine Chandler needles for best results.

REGULAR:

PBS3-14

very light work

PBS3-16 PBS3-18 light work medium, heavy work

PBS3-20

heavy work

LONG SHANK: (shank buttons) PBS7-16

medium

PBS7-20

heavy

DRAPERY TACKER

PB DT-22

Drapery needle for regular needle

bar 543-60

332 lgCF No. 160

Extra heavy drapery needle for

needle bar 543-60D

RECOMMENDED SPEEDS:

Machine classes 543, 546, & 548 are not to be operated in excess of 1000 RPM. Models 552 and later models can be operated at speeds up to 1500 rpm.

LUBRICATION:

Use a light No. 10 sewing machine oil on all moving parts. We can supply this in quart or gallon cans.

Gears and cam races are lubricated with a special non drying grease which we can also supply. Ask for "Oilzum" grease.