



# ADJUSTING INSTRUCTIONS AND ILLUSTRATED PARTS LIST

# FOR COLUMBIA CLASS 300 BLINDSTITCH MACHINES

INSTRUCTION BOOK

and

PARTS CATALOG

Columbia

BLINDSTITCH MACHINES

#### MODELS

300 - 5 300 - 12 300 - 10 300 - 14R 300 - 11 300 - 15 300 - 20

The parts listed in this catalog are furnished at list prices for repairs only.

Second Edition

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Union Special MACHINE COMPANY INDUSTRIAL SEWING MACHINES

CHICAGO

New York Office for Columbia Machines - 315 West 35th Street, N.Y. 1, N.Y.

Printed in U.S.A.

#### INSTRUCTIONS for USING this BOOK

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GENERAL INDEX to	ALL subjects	appears on	Pages 3	to 6.

GENERAL INSTRUCTIONS applying to ALL MODELS appear on Pages 7 to 16. These instructions cover adjustments, threading, needle sizes, etc. covering all models.

ADDITIONAL INSTRUCTIONS for EACH MODEL appear on Pages 17 to 31. These instructions cover the special features of each model which do not apply to other models. See INDEX (Page 3) for each model.

#### HOW TO ORDER PARTS

For your convenience in finding parts and part numbers, we have broken down the machine into its various component groups (such as main shaft group, presser foot group, needle drive group). Pictures of these groups are shown in PLATES numbered from A to 33. The Plates are listed in the Index (Pages 4 and 5) with a description of the Group and the model numbers of the machines in which these groups are used.

All the groups used in each model are also listed under the Model heading (See Index Page 3 for each model).

The CROSS-REFERENCE CHART on Pages 33, 34, and 35 show the Groups and the various models in which each group is used.

To find any part number, first refer to the Model number and Serial number stamped into the top cover of each machine. Determine the group in which each part belongs, find the Plate for this group, and locate the part and its number. The descriptions of the parts are on the page opposite each Plate.

If the part number is known, refer to the Numerical Index (Pages 105-108) to locate all of the Plates of Groups where the part is used.

ORDER by PART NUMBER, giving DESCRIPTION, QUANTITY, MODEL number and SERIAL number of the machine.

NOTE: IN ALL CASES, PLEASE SUFFIX THE NUMBER SIGN (#) TO THE PART NUMBER: EXAMPLE: 23 C 281#, PART NUMBER ON YOUR ORDER IS NOT COMPLETE WITHOUT THE # SIGN FOLLOWING THE PART NUMBER.

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# INSTRUCTIONS FOR THE INSTALLATION, ADJUSTING AND OPERATION OF ALL COLUMBIA CLASS 300 MACHINES.

#### UNPACKING AND SETTING UP OF MACHINE

- 1. To remove the machine from the box, take off the cover. Use a nail puller to avoid breaking the machine. Be sure to look carefully through the material used for packing before destroying it, so that all the parts and equipment that go with the machine will be found. Lift the machine out of the box very carefully to avoid breaking the tension studs, as these parts project beyond the head of the machine. Small parts will be found wrapped in a package.
- 2. Set up the machine; clean away accumulated lint and dust, especially from the looper.
- 3. Place the machine on the bench with the pulley lined up with the transmitter. The machine should be set on the table so that the knee lever is 1/2" from the edge of the table.
- 4. Mark the two holes for the machine screws and bore for the screw holes; bore the hole for the belt; place the felt pad under the machine and fasten the machine to the table, using the two machine bolts in the package of parts shipped with the machine.
- 5. The machine may be run 3000 revolutions per minute; it is suggested, however, that the machine first be operated at about 2500 revolutions per minute until the operator becomes used to the machine, and then step up the machine to increase the speed.
- 6. We reserve the right to change specifications or designs at any time, without incurring the obligation to install such changes on machines previously manufactured.

#### HAND WHEEL

7. The hand wheel turns away from the operator in clockwise direction.

#### OPERATING THE MACHINE

#### OILING

8. Before starting the machine make certain that all oil cups, and all openings marked with red paint, are filled with oil. Should your machine have a Top Plate stamped "OIL" push the plate to one side, oil all the openings, reset and lock the plate.

#### SPEED

- 9. Check the speed of the machine. The machine should run at a minimum speed of 2500 revolutions per minute, and should not exceed 3000 revolutions per minute.
- 10. To be certain that there are no obstructions in and around the machine, press the knee-lifter to the right, turn pulley by hand in the direction of the arrow a complete turn.

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#### THREADING

11. To thread the machine turn the belt pulley by hand until the needle arm is in its highest possible position. Proceed as shown in Threading Chart Page 12B. We suggest #00 mercerized thread.

#### INSERTING WORK

12. To insert work in the machine, press the knee lifter to the right. (This lowers the Apron.) Then place the folded edge or sewed edge of the garment DIRECTLY UNDER the small curved slot in the gauge on top of the presser foot. Once this is done, the rest of the fold should be held against the guide extending in front of the presser foot. In operating the machine, just watch this guide (not the needle).

#### ADJUSTING NEEDLE PENETRATION

- 13. Run off a few test inches and inspect the work. If the needle does not catch the fabric as desired, adjust the penetration by turning the dial indicator marked "MORE" or "LESS", following the instructions below:
- 14. Turn this dial indicator either to the right for less penetration, or to the left for more penetration, until the needle catches the bottom layer of the garment properly.
- 15. Usually it is sufficient to move the dial indicator a few graduations (NOT turns) to the left, to obtain the desired stitch, however, should you move the dial indicator a few graduations and get no results, then look for trouble at the point of the needle, which, very likely, will have been turned up to a feather-edge, causing a dull point that prevents the needle from penetrating the fabric properly. Pass your finger over the edge to see if the needle has this feather-edge. If it does, discard the needle.

#### NEEDLE REPLACEMENT

- 16. Before inserting the new needle, turn the dial to the right, ("LESS") until the rib, or plunger, remains clear of the needle, or else the needle will get a defective point again as soon as the machine is started.
- 17. When replacing the needle, make sure that it is pushed up as far as it will go, and tighten the screw. Then turn the belt pulley slowly and look to see that the full bend of the needle in back of the eye, rides on the needle guide before the needle enters the work. If it does not, take the needle out and curve it just enough to make it rest on the guide, under a slight tension.

#### STARTING TO SEW

18. You are now ready to proceed with the production. Press the knee-lifter to the right; insert the work as explained above, release the knee-lifter, and guide the work as the machine pulls it from you.

DO NOT touch the knee-lifter while the machine is in operation.

#### LOOP SKIPS

19. In case the thread breaks too frequently, or the loop skips, or the fabric gathers, correct this fault by adjusting the tension disc by turning the nut either right or left until you get a smooth line.

#### REMOVING WORK

20. To remove the work after stitching, see that the needle is withdrawn entirely from the fabric, push the knee-lifter to the right, and remove work with a quick pull away from you, in order to break the thread and lock the stitch.

#### NEEDLE SIZES

21. Needles are furnished in the following sizes, order by size number.

NO.	NO.
1	$3\frac{1}{2}$
2	4
$2\frac{1}{2}$	$4\frac{1}{2}$

Ordinarily, sizes  $2\frac{1}{2}$  and  $3\frac{1}{2}$  needles will serve the purpose. A full range of needle sizes are, however, available to meet all requirements.

22. Use ONLY genuine COLUMBIA needles. Look for the copyrighted word Columbia printed on each box of needles.

#### THREAD

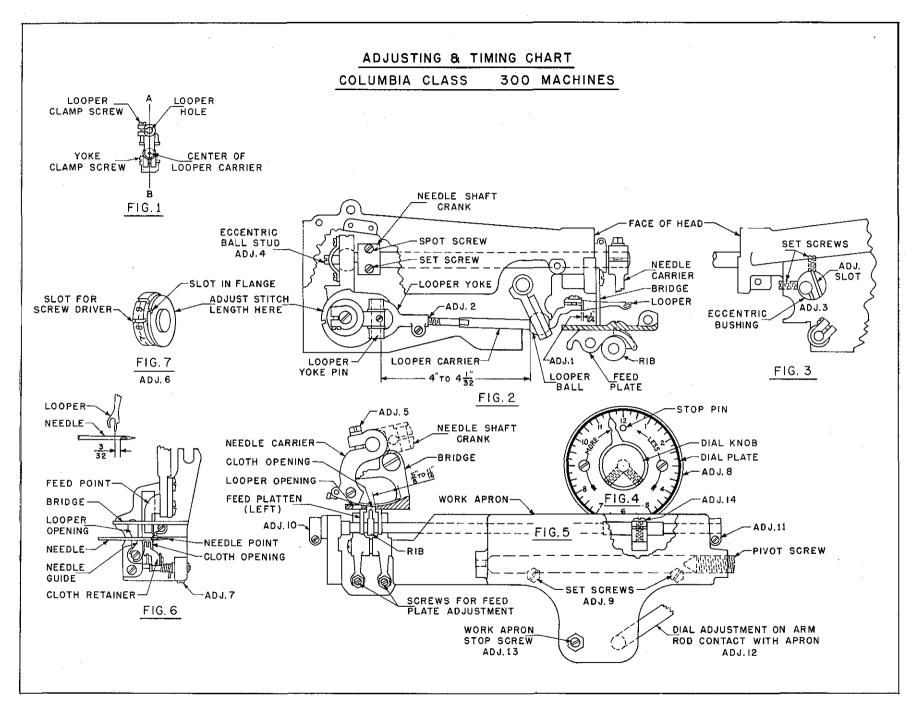
23. Use any good grade of left-twist three cord hard finish cotton thread in sizes 70 to 100. We recommend No. 00 Mercerized thread or its equivalent. If silk thread is used, select either "00" or "000".

#### REGULATOR FOR DEPTH OF NEEDLE PENETRATION

24. The needle penetration adjustment is located on the front of the arm column of the machine, and is a dial that has graduations, show the word "MORE" which indicates the direction in which to turn the dial lever for a deeper needle penetration; and the word "LESS" which indicates the direction to turn the dial lever to obtain less needle penetration in the work. (See work apron adjustments for setting regulator).

#### TIMING

25. All basic driving parts are properly timed with spot screws.



#### PRESSER FOOT

- 26. The presser foot must be mounted on the machine with care. It is clamped to the head of the machine by a screw under the head, and with two screws on the end of the head, that clamps the foot bridge to the machine. The screw between the bridge screw is eccentric, and is for adjusting the foot up or down.
- 27. To mount the presser foot, assemble with the four screws. Let the two bridge screws hold the foot loosely, and tighten the clamp screw under the head. Now using the eccentric screw, adjust the foot as follows:
- 28. With a new  $3\frac{1}{2}$  size needle in the needle arm, rotate the hand wheel in clockwise direction until the point of the needle is over the needle guide. Turn the eccentric screw and adjust the foot up or down until the needle just contacts the needle guide, and tighten the bridge screws. Back up the needle until the point of the needle is in looper opening; there should be a maximum of .005 between the needle and bottom of the needle groove on the left hand side of the presser foot. Rotate the hand wheel in clockwise direction until the point of the needle is 5/8" to 11/16" from the right hand side of the cloth opening. At this position there should be from .001" to .003" clearance from the bottom of the needle groove to the needle.
- 29. Re-check the needle clearance on the right and left hand side of the presser foot and if not correct, loosen the two bridge screws, and twist the foot by hand to obtain the correct needle clearance, and tighten screws making sure that the needle is in light contact with the needle guide.

#### ADJUSTING NEEDLE STROKE

- 30. Rotate hand wheel in clockwise direction until needle carrier is on extreme left hand end of needle stroke, insert and clamp a  $3\frac{1}{2}$  size needle into the needle arm. Rotate hand wheel until the point of the needle is even with the left hand side of the looper opening in the presser foot, this setting is made by loosening the needle arm set screw and slipping the needle arm so that the point of the needle is even with the looper opening. The rear side of the needle must clear the needle groove .005".
- 31. Continue to rotate hand wheel until the needle is at the end of needle stroke on the right hand side, see figure 5; at this position the point of the needle must be from 5/8" to 11/16" from the right hand side of the cloth opening on the presser foot. This setting is made by loosening the clamp screw holding the needle ball in the needle shaft crank, and turning the eccentric ball until the point of the needle is set correctly. See figures 2 and 5, adjustment 4 and 5.
- 32. The needle must be in contact with the needle guide when the needle point is from 1/64" to 1/32" from the left hand side of the cloth opening in the presser foot, Figure 6.

#### WORK APRON

33. Adjust work apron so that left hand feed platten is flush with left hand side of cloth opening in presser foot. The adjustment is made by loosening two hexagon set screws in up right arm of the machine base, under the work apron holding the work apron shaft; slide the apron in correct position, and tighten the two set screws, Adjustment 9, Figure 5.

- 34. Set needle over highest part of rib, and adjust work apron to raise needle from the needle guide 1/64". The adjustment is made with the work apron stop screw. Adjustment 13, Figure 5. When set tighten lock nut.
- 35. Now set regulator for depth of needle penetration with needle over the rib, and work apron set so that the needle is raised 1/64" above needle guide. Set dial knob so that pointer is against stop pin at 12 on the dial. To make the setting loosen two set screws in the dial knob and turn the pointer to come in contact with the left hand side of the stop pin and tighten the set screw. See Adjustment 8, Figure 4.

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- 36. The above adjustment must be carefully made as it limits the height the rib can be raised and will avoid blunting needle points.
  - 37. For General sewing the pointer will usually be about No. 9 on the dial.

#### FEED PLATTEN

38. Set feed platten, figure 5, so that they will depress 1/32" when in contact with the bottom of presser foot, after adjustment of foot and apron has been made. The setting is made by adjusting the feed platten carrier adjusting screws, and tighten lock nuts.

#### FEED

39. To set depth of feed, figure 6, adjustment 5, first turn hand wheel until needle point when approaching from the left is flush with left hand side of cloth opening in presser foot. Loosen the two feed clamp screws, and set feed so that a .003" shim or newspaper will just be clamped between the top of feed plate, and the bottom of the presser foot. The feed points must be parallel with bottom of foot, tighten the feed clamp screws, and check clearance between feed and looper at all positions.

#### LENGTH OF STITCH

- 40. The length of stitch is adjustable from 3 stitches per inch to 8 stitches per inch, by turning a numbered regulator on the main shaft in the rear of the head. See figure 7, adjustment 6, and chart on page 12A.
- 41. To make the adjustment, remove the rear head cover and loosen the regulator clamp screw, insert a screw driver in a slot in the regulator, hold firmly and turn the hand wheel so the number desired is opposite the notch milled into the flange beside the regulator, and tighten the clamp screw of regulator.
- 42. As the depth that the feed is set below the presser foot affects the length of stitches, the numbers on the feed regulator do not indicate the stitches per inch. Setting the regulator on number 9 will equal about 3 stitches per inch, and setting regulator on number 5 will equal about 8 stitches per inch.

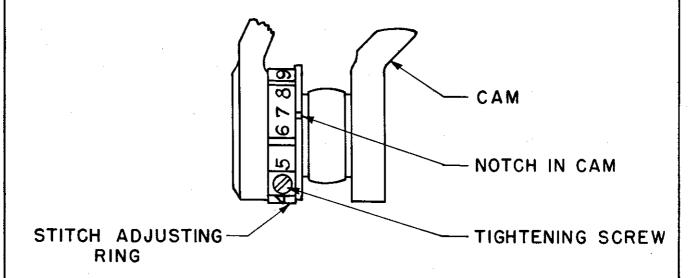
#### THE RIB

43. The function of the Rib is to present the work into the path of the needle, and is adjustable relative to the needle by turning the regulator dial lever "MORE" or "LESS" for depth of needle penetration.

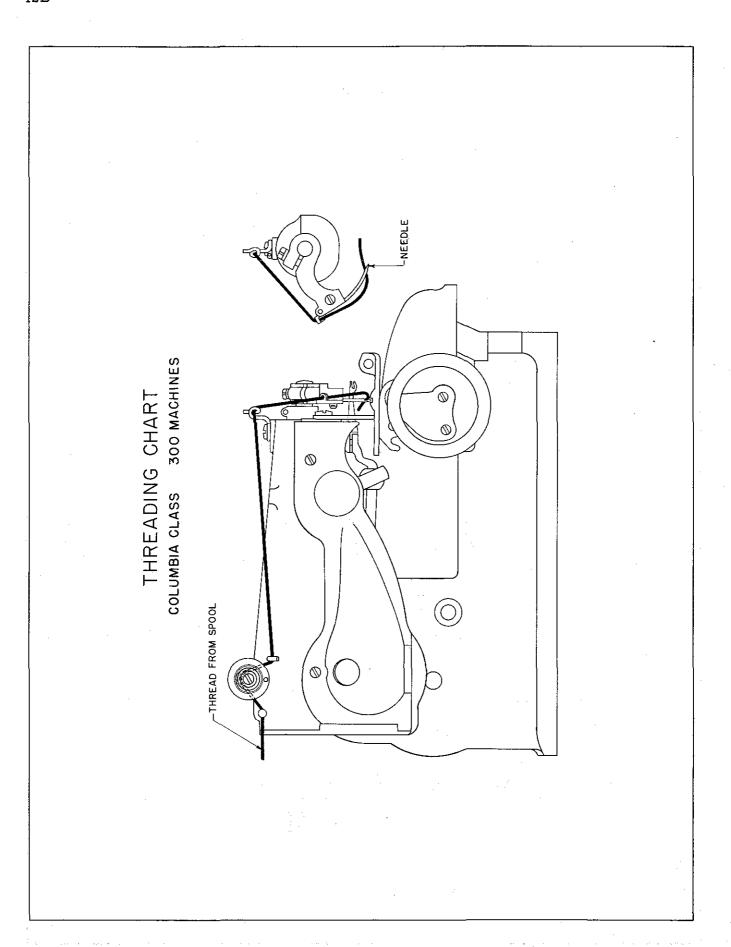
#### TO ADJUST THE LENGTH OF STITCH:

1 -- Remove rear cover.

- 2 -- Loosen screw on stitch-adjusting ring.
- 3 -- Find notch on cam by turning hand pulley, then stop.
- 4 -- Insert screw driver in any slot on the stitch-adjusting ring and press down from the notch on the cam for a short stitch.
- 5 -- Tighten screw, then try the stitch.
- 6 -- To select the proper length repeat the operation.
- 7 -- For best results move the stitch-adjusting ring the amount as indicated and tighten when stamped number is in line with the notch on the cam.



# VIEW FROM REAR OF MACHINE COVER REMOVED



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44. The Rib must be set to be 3/32" from the right hand side of the cloth opening in the
presser foot. The adjustment is made by loosening the clamp screws of the Collars on each
end of the rib shaft, see adjustment 10 and 11, figure 5. Set the rib in center of the cloth open-
ing and tighten clamp screws. There must be no end play in the rib shaft.

- 45. If the machine is a 1-to-1 machine that is, the needle penetrates the body fabric of the garment on every stitch, the rib must be set so that when the needle point is over the center of the rib, the needle point is 3/32' back from the nose of the rib. The adjustment is made as follows:
- 46: Rotate hand wheel in clockwise direction until rib is at extreme end of its stroke with nose of rib under the needle. Loosen clamp screw in crank, adjustment 14, figure 5, and set rib by hand so that point of needle is 3/32" back from nose of rib, and tighten clamp screw.

#### LOOPER

47. The correct setting of the looper is of greatest importance. Refer to "Adjusting and Timing Chart". Page 10. The looper carrier assembly consists of:

Looper Yoke - in which are the looper yoke pin holes.

Clamp Screw.

Looper Ball.

Looper Carrier

- 48. The looper carrier and looper yoke are set before assembling these parts into the machine. Now, the looper ball is positively located on the shaft of the looper carrier by a spot screw. The looper carrier is assembled to the looper yoke, so that the distance from the edge of the looper yoke pin nearest the looper ball, to the side of the looper ball nearest the looper yoke will be 4 to 4-1/32 (See Adjusting Chart, Figure 1, Adjustment 2.) The looper hole must be in line with center of looper carrier as shown in Figure 1.
- 49. The looper is mounted in the looper carrier assembly; allow 1/64" space between looper shoulder and end of looper carrier. (See Figure 2, Adjustment 1.) The Correct assembling of this unit must be understood in case for any reason it is necessary to remove or replace this assembly.
- 50. The looper has means for the following adjustments, which, for reference to the drawing, are numbered as follows:

#### Adjustment 1

51. Means for adjusting the looper in and out.

#### Adjustment 2

52. Means for adjusting the looper position on the right hand side, or when the looper is taking the loop from the needle.

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#### Adjustment 3

- 53. Means for adjusting the looper position on the left hand side, or when the needle is between the prongs of the looper.
  - 54. Means for adjusting the position of the looper from left to right, or right to left.
- 55. Before setting the looper, the looper carrier assembly must be in accordance with instructions for Figure 1, and Figure 2, and the needle setting must be as described in adjustments 4 and 5, Figures 2 and 5.

#### ADJUSTING AND SETTING THE LOOPER

- 56. To secure the correct adjustment of the looper, the following steps should be taken and in the same sequence as here given:
  - 57. The looper is first adjusted as the looper is taking the loop from the needle.
- 58. The position for the long prong of the looper is to have the point of this prong 1/16" to 3/32" from the inner end of the needle eye, and the point of the long prong should brush the scarf of the needle slightly.
  - 59. To secure this setting, the following steps and adjustments are taken and made:
- 60. Turn the hand wheel in clockwise direction; that is, the top of the hand wheel will be moved away from the operator very slowly until the long prong of the looper is over the center line of the needle.
- 61. Loosen the looper ball joint shaft eccentric bushing set screw, this will allow the bushing to slide either to the right or left, and to rotate so that the looper can be adjusted up or down, and at the same time the looper can be moved to the right or left. (See Figure 3, Adjustment 3.) that shows that the approximate setting of the eccentric bushing is with the looper shaft hole toward the needle end of the head, and the adjusting slot at an angle, and the slit into the shaft hole near the bottom.
- 62. Slide the bushing until the long prong of the looper is 3/32" from the inner end of the needle eye, and tighten bushing set screw.
- 63. Loosen the looper yoke clamp screw, see Adjustment 2, Figure 2, and roll the looper until the long prong of the looper just brushes the scarf of the needle.

64	4. Check to	see that point o	of the long prong of the	looper just brushes	the scarf of the
needle, a	and is $3/32$ "	from the inner	end of the needle eye.	See Figure 5.	

- 65. Continue to rotate hand wheel in clockwise direction, until the short prong of the looper is at nearest point when passing chaining finger, not exceeding 1/32" See Figure 6. If the short prong does not clear the chaining finger, or if the clearance is greater than 1/32", then the previous adjustments have not been correctly made, and these should be re-made.
- 66. Continue to rotate the hand wheel in clockwise direction until the short prong of the looper has passed the edge of the looper slot in the foot. If the short prong of the looper does not enter the looper slot in the foot, adjust so that the short prong will clear the edge of the looper slot in the foot by moving the eccentric bushing for the looper, Adjustment 3, Figure 3. Move the bushing the least amount possible so that the short prong clears the edge of the looper slot.

- 67. Care must be taken now as the needle may strike the crotch of the looper when the needle should be entering between the prongs of the looper.
- 68. Continue to turn the hand wheel in clockwise direction until the point of the needle should enter between the prongs, but instead of doing so, strikes the crotch of the looper. The following corrective steps are required:
- 69. The needle must enter between the prongs of the looper, clearing the two prongs about an equal amount.
- 70. In case the needle should not enter about midway of the two prongs to correct this, loosen the eccentric bushing clamp screw, Figure 3, and turn the looper eccentric bushing in Adjustment 3, Figure 3, until the prongs of the looper are about equal distance from the needle. When this setting has been made, tighten the bushing set screw. See Figure 3.
- 71. Continue to rotate the hand wheel in a clockwise direction until the point of the long prong of the looper is over the center line of the needle. Check to see that the point of the long prong of the looper is 1/16" to 3/32" from the inner end of eye of the needle, and that the point of the long prong just brushes the scarf of the needle. In case the above conditions do not exist, the eye must be corrected -- this is done as described in the 56 to 65 paragraphs inclusive under the heading "ADJUSTING AND SETTING THE LOOPER". Be sure to roll the looper Adjustment 2, Figure 2. Do not turn the looper eccentric bushing.
- 72. The machine, as far as the looper and needle are concerned is now ready to sew. Different materials or different threads may cause a slightly variation from the above adjustments, however, there adjustments will give the best results when padding or hemming the more heavy materials. When hemming silks and cotton, however, it may be advisable to set the point of the needle 1/16" Figure 6, instead of 3/32", without changing the looper position by re-adjusting the needle ball stud, Adjustment 4, Figure 2.

#### RETAINER OR CLOTH CLAMP

73. The cloth retainer located in the cloth opening of the presser foot must at all times be adjusted as close to the needles as possible, and set relative to the ridge forming disc to firmly hold the work onto the disc while the needle is penetrating the material. If the work is carried along with the needle, no loop will form, resulting in missed stitches. See Figure 6, Adjustment 7. To adjust the retainer loosen set screw in foot and turn the cloth retainer eccentric bushing and turn bushing for setting retainer to the needle, and slide to the right or left for setting retainer to the rib, and tighten set screw in the presser foot.

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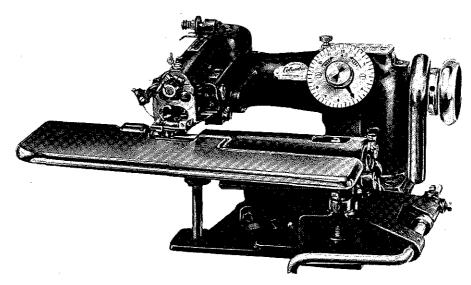
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#### COLUMBIA MODEL 300-5 - GENERAL UTILITY

#### MACHINE



THE MODEL 300-5

The Model 300-5 is a general utility Blind Stitch machine for general alteration work, and for felling trouser bottoms, bottom of coats, dress hems, etc.

It is an excellent machine for alteration rooms, manufacturers, and for cleaners and dyers.

This model is equipped to sew the base layer or body fabric on every stitch, and is equipped with a work plate for sewing flat work, and the work plate can be swung out of the way for sewing cylindrical work such as pants bottoms and sleeves.

The machine is equipped with a knee lift.

#### INSTRUCTIONS FOR ORDERING PARTS

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The parts have been broken up into groups, and these groups are shown below. Turn to the plate showing the group in which the part to be ordered is located, find the part, and order by part number. Part number on your order is incomplete without the # sign following the part number. Following is list of plates and groups.

PLATE	PAGE	DESCRIPTION OF GROUP
A	36	Sundry Parts - Head and Arm.
1	38	Main Shaft Group.
4	44	Looper Drive Group.
5	46	Needle Drive Group.
6	48	"Clock Dial" Stitch Depth Adjustment Group.
. 8	52	Presser Foot Group.
15	66	Work Table and Knee Lift Group.
16	68	Work Apron Group.
17	70	Feed Platten Group.
24	84	Rib Shaft Group,
26	88	Feed Points.

#### COLUMBIA MODEL 300-5

#### ADDITIONAL ADJUSTMENTS FOR MODEL 300-5

Refer to timing chart, page 10.

#### STITCH LENGTH

Generally set 3 stitches per inch, #9 on stitch regulator, Adjustment 6, Figure 7.

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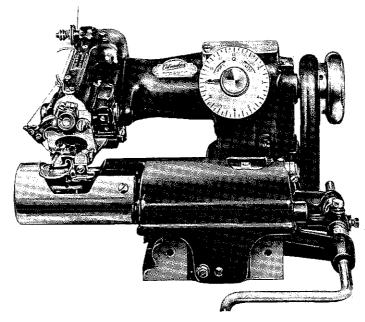
RIB

Set rib in center of cloth opening in the presser foot, Adjustment 9, Figure 5.

#### CLOTH RETAINER

Rotate hand wheel clockwise until the rib is at the end of its oscillation, and under the needle. Adjust the cloth retainer to just clear the needle, and center the cloth retainer to the rib. To check this setting, insert a strip of paper on each side of the rib, under the retainer; the retainer must clamp both strips of the paper. See Adjustment 7, Figure 6.

#### COLUMBIA MODEL 300-10 - ROLLED EDGE MACHINE



THE MODEL 300-10

Model 300-10 is a machine specially made for rolled edges or hand rolled hems.

Folders are available in sizes #00, #1, #2 and #3, for producing a rolled edge on the lighter materials, such as used in making scarfs, and for heavier materials, such as light worsteds.

The Model 300-10 is used in making:

Scarfs	Slips	Handkerchiefs
Dresses	Housecoats	Table Cloths
Evening Gowns	Play Suits	Napkins, etc.

#### INSTRUCTIONS FOR ORDERING PARTS

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The parts have been broken up into groups, and these groups are shown below. Turn to plate showing the group in which the part to be ordered is located, find the part, and order by part number. Part number on your order is incomplete without the # sign following the part number. Following is list of plates and groups.

PLATE	PAGE	DESCRIPTION OF GROUP
A	36	Sundry Parts - Head and Arm.
1	38	Main Shaft Group.
4	44	Looper Drive Group.
5	46	Needle Drive Group.
6	. 48	"Clock Dial" Stitch Depth Adjustment Group.

#### COLUMBIA MODEL 300-10

PLATE	$\underline{\mathbf{PAGE}}$	DESCRIPTION
13	62	Presser Foot Group.
16	68	Work Apron Group.
18	72	Feed Platten Group.
21	78	Knee Lift Group.
22	80	Folders.
24	84	Rib Shaft Group.
26	88	Feed Points.

#### ADDITIONAL ADJUSTMENTS FOR MODEL 300-10

Refer to timing chart, page 10.

#### STITCH LENGTH

Set for 6 stitches per inch, #5 on feed regulator, Adjustment 6, Figure 7.

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#### RIB

Set rib .093 (3/32") from right hand side of cloth opening in presser foot, Adjustment 10 and 11, Figure 5.

#### CLOTH RETAINER

Set cloth spring retainer as close to the needle as possible with right hand side of retainer even with right side of rib.

#### FEED

Rotate hand wheel in clockwise direction until end of feed is nearest to the needle. Set end of feed 3/64" from back side of needle.

Set depth of feed 1/32" below, and parallel with bottom of the foot.

#### FEED PLATTEN

Set left hand side of slot in feed platten 1/64" from the left hand side of cloth opening in the presser foot. Adjustment 9, Figure 5.

#### NEEDLE STROKE

Rotate hand wheel in clockwise direction until the needle arm is at the end of its left hand stroke, insert needle in the needle arm, and clamp. Loosen clamp screw of needle arm, and set the point of needle even with the left hand side of looper opening in the presser foot, and tighten clamp screw, Adjustment 5, Figure 5.

COL	ATRIMIT.	MODEL	300-	.10

Continue to rotate hand wheel in clockwise direction so that needle is at the extreme
right hand end of its stroke. The point of the needle when in this position should be from
11/16" to 3/4" from the right hand side of the cloth opening in the presser foot, check, and i
not correct, reset by using eccentric ball stud. Adjustment 4, Figure 2.

#### #00 FOLDER

When roll edging with #00 folders, the rib must be set .047 (3/64") from the right hand side of the cloth opening in the presser foot.

Set stitch length for 8 stitches per inch, #4 on feed regulator. Adjustment 6, Figure 7.

#### COLUMBIA MODEL 300-11 - PANTS BOTTOM MACHINE

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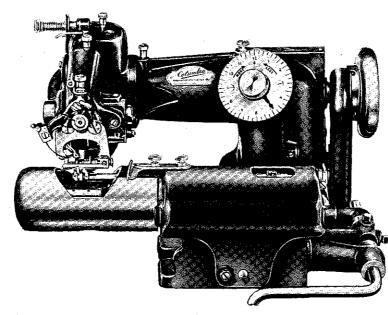
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THE MODEL 300-11

Model 300-11 is specially fitted for felling pants bottoms. It is equipped with a cylinder end cover for handling the pants leg. The edge guides furnished with the machine can be quickly set to make the turn up the desired depth.

The length of stitch is adjustable, and the machine is equipped with a knee lift.

As the machine is intended to sew cylindrical work only, it is not equipped with a work plate.

#### INSTRUCTIONS FOR ORDERING PARTS

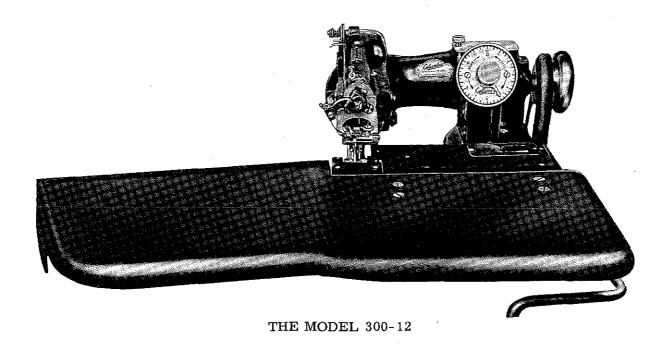
The parts have been broken up into groups, and these groups are shown below. Turn to plate showing the group in which the part to be ordered is located, find the part, and order by part number. Part number on your order is incomplete without the # sign following the part number. Following is list of plates and groups.

PLATE	PAGE	DESCRIPTION OF GROUP
A	36	Sundry Parts - Head and Arm.
1	38	Main Shaft Group.
4	44	Looper Drive Group.
5	46	Needle Drive Group.
6	48	"Clock Dial" Stitch Depth Adjustment Group.
11	58	Presser Foot Group.
16	68	Work Apron Group.
17	70	Feed Platten Group.
21	78	Knee Lift Group.
24	84	Rib Shaft Group.
26	88	Feed Points.

	·	COLUI	MBIA MO	DEL 3	00-11		
ADDITIONAL A	DJUSTMENTS I	OR MOI	DEL 300-	11			
Refer	to timing chart,	page 10.	•				
STITCH LENGT	H						
Set ma Figure 7.	chine to sew 6 s	stitches p	er inch.	(No. 5	on feed	regulato	r). Adjust
RIB							
Set rib presser foot, A	. 045 (3/64") fr djustment 10 an	om right d 11, Fig	hand sidegure 5.	e of rib	to left h	and side	of cloth op
Set rib presser foot, A	.045 (3/64") fr djustment 10 an	om right d 11, Fig	hand side	e of rik	to left h	and side	of cloth op
Set rib presser foot, A	. 045 (3/64") fr djustment 10 an	om right d 11, Fig	hand side	e of rik	o to left h	and side	of cloth or
Set rib presser foot, A	. 045 (3/64") fr djustment 10 an	om right d 11, Fig	hand side	e of rik	o to left h	and side	of cloth or
Set rib presser foot, A	. 045 (3/64") fr djustment 10 an	om right d 11, Fig	hand sidegure 5.	e of rik	o to left h	and side	of cloth or
Set rib presser foot, A	.045 (3/64") fr djustment 10 an	om right d 11, Fig	hand sidegure 5.	e of rik	o to left h	and side	of cloth or
Set rib presser foot, A	.045 (3/64") fr djustment 10 an	om right d 11, Fig	hand sidegure 5.	e of rik	to left h	and side	of cloth or
Set rib presser foot, A	.045 (3/64") fr djustment 10 an	om right d 11, Fig	hand sidegure 5.	e of rik	to left h	and side	of cloth or
Set rib presser foot, A	. 045 (3/64") fr djustment 10 an	om right d 11, Fig	hand sidegure 5.	e of rik	to left h		
Set rib presser foot, A	djustment 10 an	d 11, Fig	gure 5.				of cloth or

#### COLUMBIA MODEL 300-12 - FACING - TACKING MACHINE

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Model 300-12 tacks the facing of women's coats any distance from the edge with a flexible stitch that tacks the facing to the fore part of the coat, holding the garment in shape, and keeps the coat from sagging.

The machine is furnished with a large work plate, and is equipped with a knee lift.

#### INSTRUCTIONS FOR ORDERING PARTS

The parts have been broken up into groups, and these groups are shown below. Turn to plate showing the group in which the part to be ordered is located, find the part, and order by part number. Part number on your order is incomplete without the # sign following the part number. Following is list of plates and groups.

PLATE	PAGE	DESCRIPTION OF GROUP
A	36	Sundry Parts - Head and Arm.
3	42	Main Shaft Group.
4	44	Looper Drive Group.
5	46	Needle Drive Group.
6	48	"Clock Dial" Stitch Depth Adjustment Group.
10	56	Presser Foot Group.
26	. 88	Feed Points.
27	90	Right Hand Rib Drive Group.
28	92	Feed Platten Group.
29	94	Left Hand Rib Drive Group.
30	96	Left Hand Rib Adjustment Group.
31	98	Work Apron Group, Two Rib Machines.
32	100	Work Support Group.
33	102	Work Support Bracket Group.

				25
	COLUMBIA	MODEL 300-12		
ADDITIONAL ADJUSTME	INTS FOR MODEL 30	00-12		
Refer to timing	chart, page 10.			
STITCH LENGTH				
Set machine to s	ew 3 stitches per inc	h, #9 on feed re	egulator. Adjust	ment 6, Figure 7
PRESSER FOOT				
See General Inst	ructions for all Mode	els.		
NEEDLE STROKE	•		•	
	le when at right hand ne point of the needle ent 5, Figure 5.			
LOOPER ADJUSTMENT				
Looper adjustme	ents are the same as	in General Instr	cuctions for all I	Models.
RIBS				in the second of
fabric to the needle, and	ibs in the Model 300- penetration is regula			
apron.		·		
The right hand r to the needle, and penetra	ib raises the folded f ation is regulated by			(3 ply of materia
·				
SET RIGHT HAND RIB				•
Set position of ri side of cloth opening in th shafts set screws. Adjus correct position.		setting is made	by loosening the	e two work apron
		T		
Set height of right arm, Adjustment 8, Figu set screw. The knob with pin.		r hand on top of	the stop pin, an	d tighten one
•				
Turn the dial know Figure 5, leaves contact directly over the right ha rod clamp screw, Adjusti	nd rib, remove cove	n the hand wheel r on top of the a	l until the needle pron and loosen	e point is rib connecting

#### COLUMBIA MODEL 300-12

needle is 1/32" back of the radius on nose of the rib, and tighten clamp screw. Now, with the needle point directly over the right hand rib, set height so that rib will lift needle .005" from the needle guide by using the apron stop screw, Adjustment 13, Figure 5, tighten lock nut.

Place three thicknesses of sack coat material under the presser foot, and reset the dial regulator on the arm by turning the dial knob in "LESS" direction until one or two strands of the top material is picked up by the needle to produce a blind stitch. When this condition has been achieved, loosen the dial knob set screw, and reset the indicator point to #9 on the dial, and tighten the two dial knob set screws, Adjustment 8, Figure 4.

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#### SET LEFT HAND RIB

Lower left hand rib by turning the dial knob on work apron bracket in "LESS" direction to the lowest position.

Turn hand wheel in clockwise direction until the left hand rib is in its most advanced position, with needle point directly over the rib; now turn the arm dial knob in "LESS" direction until the indicator pointer strikes the stop pin on dial lowering the work apron.

Now, by turning the graduated dial knob above the apron in "MORE" direction, raise the left hand rib until it lifts the needle .005" from the needle guide, and set stop screw for the work apron bracket.

The stop screw, #18-756, is in the right hand arm under the work apron bracket, see plate 30, page 96. First, remove the lock screw, CS320 1/2 on top of the stop screw, and adjust stop screw as above, and replace lock screw.

Turn arm dial knob in "MORE" direction until indicator point is at #9 and with indicator in this position, and by turning the dial knob indicator on work apron in "MORE" direction, raise the left hand rib to blind stitch a single thickness of medium weight sack coat material.

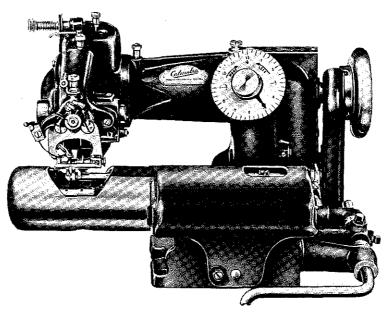
Now set left hand rib so that the needle point is 1/32" in back of the radius on the nose of the left hand rib when at the most forward end of its stroke, and under the needle point. Loosen clamp screw 18-710 in left hand rib crank, 448-133, set rib and tighten clamp screw. See plate 29, page 94.

#### FEED

Set length of stitch with feed regulator on 7 1/2, Adjustment 6, Figure 7. Turn hand wheel in clockwise direction until feed is on end of stroke nearest the needle. Loosen the two feed screws, and set end of feed from 1/8" to 3/16" back of needle. The depth of feed is set by turning hand wheel in clockwise direction, and set feed so that when needle point is 1/64" to the left of cloth opening in the presser foot, the left hand feed platten will clamp a .003" shim or a piece of newspaper.

#### COLUMBIA MODEL 300-14 R

#### PADDING MACHINE



THE MODEL 300-14 R

Model 300-14 R is fitted for padding collar and lapels, and felling bridles.

Presser Feet are available for padding from the lighter to the heavy weight materials.

The machine is equipped with a foot treadle or knee lifter.

As the machine is intended for padding work, a work plate is not furnished with this model.

#### INSTRUCTIONS FOR ORDERING PARTS

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The parts have been broken up into groups, and these groups are shown below. Turn to plate showing the group in which the part to be ordered is located, find the part, and order by part number. Part number on your order is incomplete without the # sign following the part number. Following is list of plates and groups.

PLATE	PAGE	DESCRIPTION OF GROUP
A	36	Sundry Parts - Head and Arm.
1	38	Main Shaft Group.
4	44	Looper Drive Group.
5	46	Needle Drive Group.
. 6	48	"Clock Dial" Stitch Depth Adjustment Group.
12	60	Presser Foot Group.
16	68	Work Apron Group.
19	74	Feed Platten Group.
21	78	Knee Lift Group.
24	84	Rib Shaft Group.
26	88	Feed Points.

#### COLUMBIA MODEL 300-14 R

ADDITIONAL ADJUSTMENTS FOR MODEL 300-14 I	ADDITIONAL	ADJUSTMENTS	FOR	MODEL	300-14	R
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Refer to timing chart, page 10.

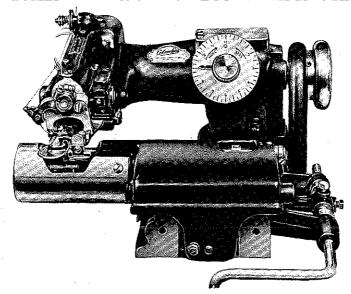
### LENGTH OF STITCH

Set machine to sew 6 stitches per inch. (#8 on feed regulator). Adjustment 6, Figure 7.

#### RIB

Set rib in center of cloth opening in the presser foot. Adjustment 10 and 11, Figure 5.

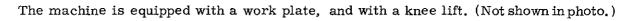
#### COLUMBIA MODEL 300-15 - BOOK SEAM MACHINE



THE MODEL 300-15

Model 300-15 is fitted for sewing a turned under edge of the seam of a coat (sometimes referred to as book seaming).

This method of finishing the seams of a coat eliminate piping the seam.



Folders are available for the various weights of material used in making coats.

#### INSTRUCTIONS FOR ORDERING PARTS

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The parts have been broken up into groups, and these groups are shown below. Turn to the plate showing the group in which the part to be ordered is located, find the part, and order by part number. Part number on your order is incomplete without the # sign following the part number. Following is list of plates and groups.

PLATE	PAGE	DESCRIPTION OF GROUP
A	36	Sundry Parts - Head and Arm.
1	38	Main Shaft Group.
4	44	Looper Drive Group.
5	46	Needle Drive Group.
6	48	"Clock Dial" Stitch Depth Adjustment Group.
14	64	Presser Foot Group.
15	66	Work Table and Knee Lift Group.
16	68	Work Apron Group.
20	76	Feed Platten Group.
23	82	Folder Group.
25	86	Rib Shaft Group.
26	88	Feed Points.
		·

#### COLUMBIA MODEL 300-20 MACHINE

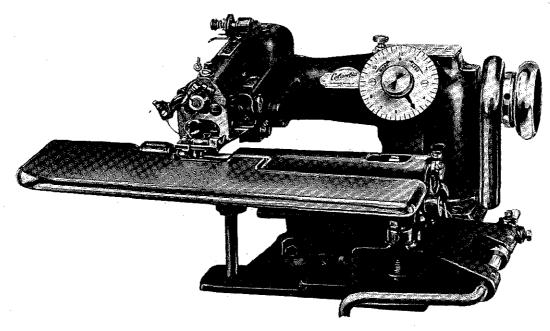
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#### HEMMING MACHINE



THE MODEL 300-20

The Model 300-20 is a skip stitch machine for hemming with a two-to-one skip stitch, which means that the needle penetrates the base lay or body fabric every other stitch, and penetrates the hem or folded edge every stitch.

Using the skip stitch method, garments can be sewed equal to, and better than hand work, when the material used is of fair weight, and as the machine was designed to use a curved needle, a blind stitch will be made. On light weight materials, such as dresses made of cotton, silks and rayon, every other stitch will appear on the finished side of the garment as a very small dot, the same as a garment made by hand.

The following operations are examples of work that are produced by the Model 300-20:

Dresses and Blouses - Hemming Bottoms, Sleeves and Felling Facings.

Womens Coats - Felling Linings.

Department Store Alterations - Shortening Dresses.

Lingerie.

Hemming Tailored Bottoms.

#### INSTRUCTIONS FOR ORDERING PARTS

The parts have been broken up into groups, and these groups are shown below. Turn to the plate showing the group in which the part to be ordered is located, find the part, and order by part number. Part number on your order is incomplete without the # sign following the part number. Following is list of plates and groups.

#### COLUMBIA MODEL 300-20

PLATE	$\underline{\mathbf{PAGE}}$	DESCRIPTION
A	36	Sundry Parts - Head and Arm.
2	40	Main Shaft Group.
4	42	Looper Drive Group.
5	46	Needle Drive Group.
6	48	"Clock Dial" Stitch Depth Adjustment Group.
7	50	Skip Stitch Group.
8	52	Skip Stitch Mechanism.
9	54	Presser Foot Group.
15	66	Work Table and Knee Lift Group.
16	68	Work Apron Group.
17	70	Feed Platten Group.
25	86	Rib Shaft Group.
26	88	Feed Points.

#### ADDITIONAL ADJUSTMENTS FOR MODEL 300-20

Refer to timing chart, page 10.

#### STITCH LENGTH

Generally set 3 stitches per inch, #9 on stitch regulator, Adjustment 6, Figure 7.

#### RIB

2

Set rib in center of cloth opening in the presser foot, Adjustment 9, Figure 5.

#### CLOTH RETAINER

Rotate hand wheel clockwise until the rib is at the end of its oscillation, and under the needle. Adjust the cloth retainer to just clear the needle, and center the cloth retainer to the rib. To check this setting, insert a strip of paper on each side of the rib, under the retainer; the retainer must clamp both strips of the paper. See Adjustment 7, Figure 6.

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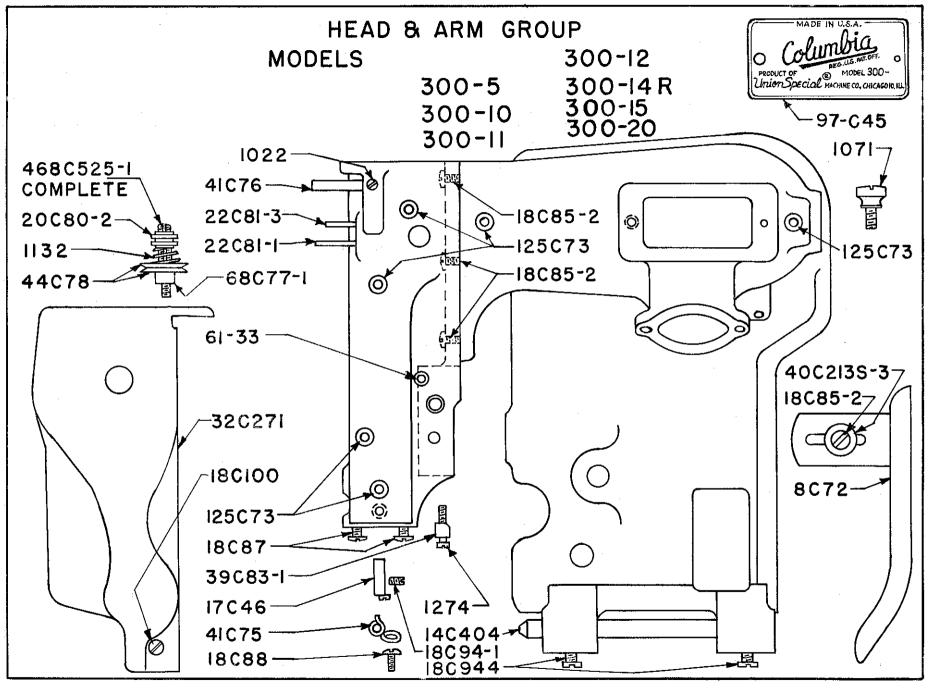
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GROUPS - WHERE USED							
Plate A Sundry Parts - Head & Arm	300-5	300-10	300-11	300-12	300-14 R	300-15	300-20
Plate 1 Main Shaft Group	300-5	300-10	300-11		300-14 R	300~15	
Plate 2 Main Shaft Group	<del></del>					<u>.</u>	300-20
Plate 3 Main Shaft Group				300-12			
Plate 4 Looper Drive Group	300-5	300-10	300-11	300-12	300-14 R	300-15	300-20
Plate 5 Needle Drive Group	300-5	300-10	300-11	300-12	300-14 R	300-15	300-20
Plate 6 "Clockdial" Stitch Depth Adjustment Group	300-5	300-10	300-11	300-12	300-14 R	300-15	300-20
Plate 7 Skip Stitch Group				·			300-20
Plate 8 Skip Stitch Mechanism							300-20
Plate 9 Presser Foot Group	300-5				taget to the control of the control		300-20
Plate 10 Presser Foot Group		<u> </u>		300-12		· ·	
Plate 11 Presser Foot Group			300-11				

	300-5	300-10	300-11	300-12	300-14 R	300-15	200 20
	T 300-0	200-10	300-11	300-12	200-14 V	<u> 300≒19</u>	300-20
Plate 12 Presser Foot Group	<u></u>	<del></del> .	· ——		300-14 R		
Plate 13 Presser Foot Group		300-10					
Plate 14 Presser Foot Group			·	<del></del>		300-15	
Plate 15 Work Table & Knee Lift Group	300-5					300-15	300-20
Plate 16 Work Apron Group	300-5	300-10	300-11		300-14 R	300-15	300-20
Plate 17 Feed Platten Group	300-5		300-11				300-20
Plate 18 Feed Platten Group		300-10				·	
Plate 19 Feed Platten Group		<b>.</b>			300-14 R		
Plate 20 Feed Platten Group						300-15	
Plate 21 Knee Lift Group		300-10	300-11	300-12	300-14 R		
Plate 22 Folder Group		300-10					
Plate 23 Folder Group						300-15	

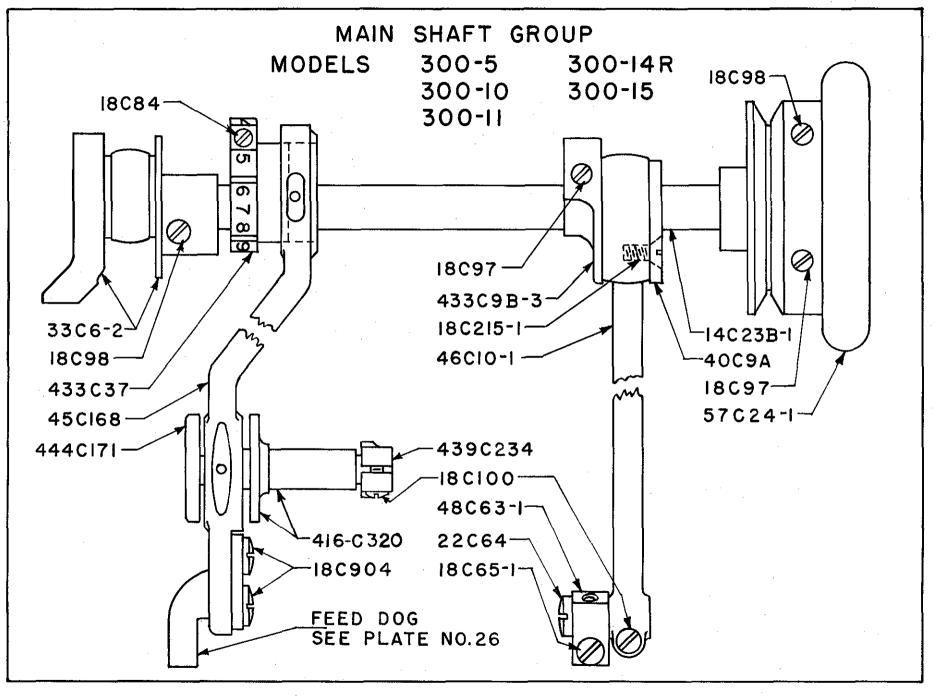
GROUPS - WHERE USED								
Plate 24 Rib Shaft Group	300-5	300-10	300-11		300-14 R	<u></u>		
Plate 25 Rib Shaft Group						300-15	300-20	
Plate 26 Feed Points	300-5	300-10	300-11	300-12	300-14 R	300-15	300-20	
Plate 27 Right Hand Rib Drive Group				300-12	-			
Plate 28 Feed Platten Group			<del></del>	300-12				
Plate 29 Left Hand Rib Drive Group	<del></del>			300-12	·			
Plate 30 Left Hand Rib Adjusting Group		·:		300-12				
Plate 31 Work Apron Group Two Rib Machines			. <del></del>	300-12				
Plate 32 Work Support Group				300-12	,			
Plate 33 Work Support Bracket Group				300-12				
					,			



### SUNDRY PARTS - HEAD AND ARM

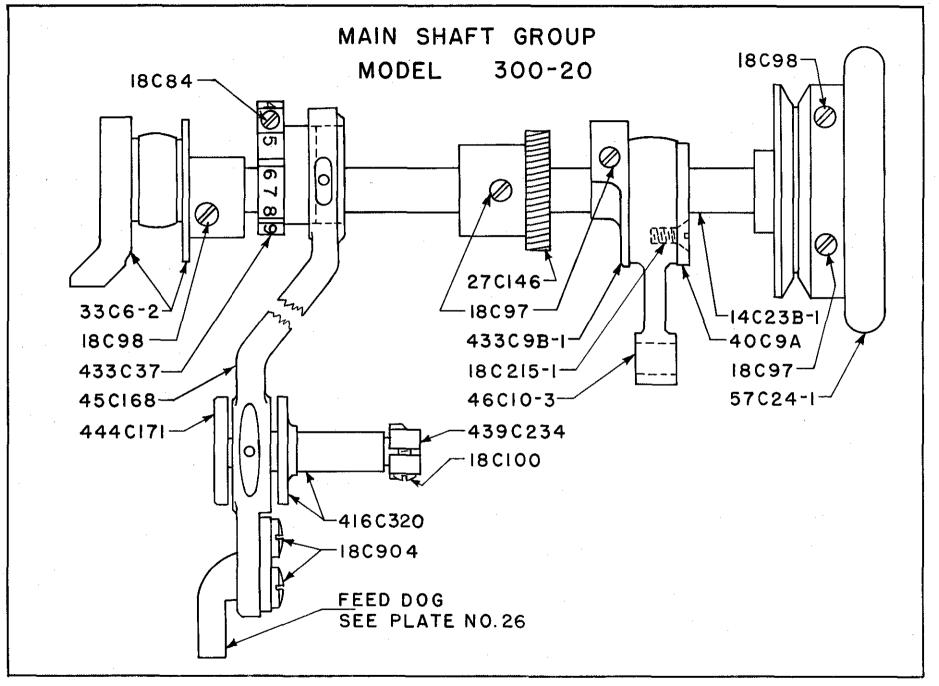
### GROUP

PLATE A	300-5 300-10	300-11 300-12 300-14 R	300-15 300-20
8 C 72	Belt Guard.	39 C 83-1	Clamp Collar for eccentric bushing in head for adjusting looper.
14 C 404	Shaft for work apron.	40 C 213S-3	Washer for belt guard.
17 C 46	Presser Foot Adjusting Stud.		3
18 C 82	Screw for clamping feed riser bushing.	41 C 75	Thread Guide Front.
18 C 85-2	Screw for belt guard.	41 C 76	Thread Guide Rear.
		44 C 78	Tension Disc.
18 C 87	Screw for attaching head to arm.	61-33	Oil Tube for feed lever.
18 C 88	Screw for front thread guide.	68 C 77-1	Tension Staff.
18 C 94-1	Set Screw for presser foot adjusting stud, 17 C 46.	97 C 45	Name Plate on top of arm.
18 C 100	Screw for side and rear covers on head.	125 C 73	Oil Cups.
18 C 944	Set Screw for work apron shaft.	1022	Set Screw for rear thread guide.
20 C 80-2	Nut for adjusting tension disc.	1071	Screw for name plate on top of arm.
22 C 81-1	Pin for front thread guide.	1132	Spring for tension disc.
22 C 81-3	Pin to lock tension disc.	1274	Screw for clamping eccentric bushing in head for adjusting looper.
32 C 271	Cover on side of head and rear of head.	468 C 525-1	Tension Device Complete.



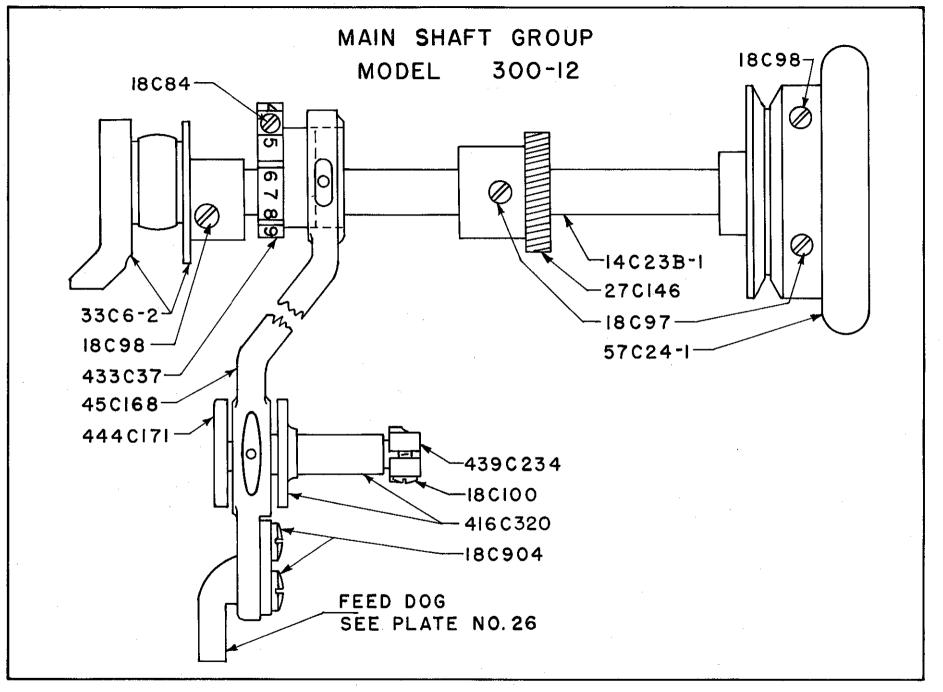
# MAIN SHAFT GROUP

PLATE 1	Models:	300-5 300-10 300-15	300-11 300-14 R
14 C 23B-1	Main Shaft.	33 C 6-2	Eccentric on main shaft for feed and needle.
18 C 65-1	Screw for rib shaft drive link crank.	40 C 9A	Washer for rib eccentric on main shaft.
18 C 84	Screw for feed adjustment sleeve.	45 C 168	Feed Lever.
18 C 97	Set Screw (Dog Point) for belt pulley.	46 C 10-1	Rib Shaft Drive Link.
	Set Screw (Dog Point) for rib eccentric on main shaft.	48 C 63-1	Crank for rib shaft drive link.
18 C 98	Set Screw for belt pulley.	57 C 24-1	Pulley for belt.
	Set Screw for eccentric for feed and needle drive.	416 C 320	Feed Riser Bushing Complete.
18 C 100	Screw for rib shaft drive link.	433 C 9B-3	Rib Eccentric on main shaft.
18 C 215-1	Screw for feed riser disc collar.  Screw for washer for rib eccentric.	433 C 37	Eccentric Sleeve for feed adjustment
	•	439 C 234	Feed Riser Disc Collar.
18 C 904	Screws for feed.	444 C 171	Feed Riser Disc Complete.
22 C 64	Pin for rib shaft drive link.	•	



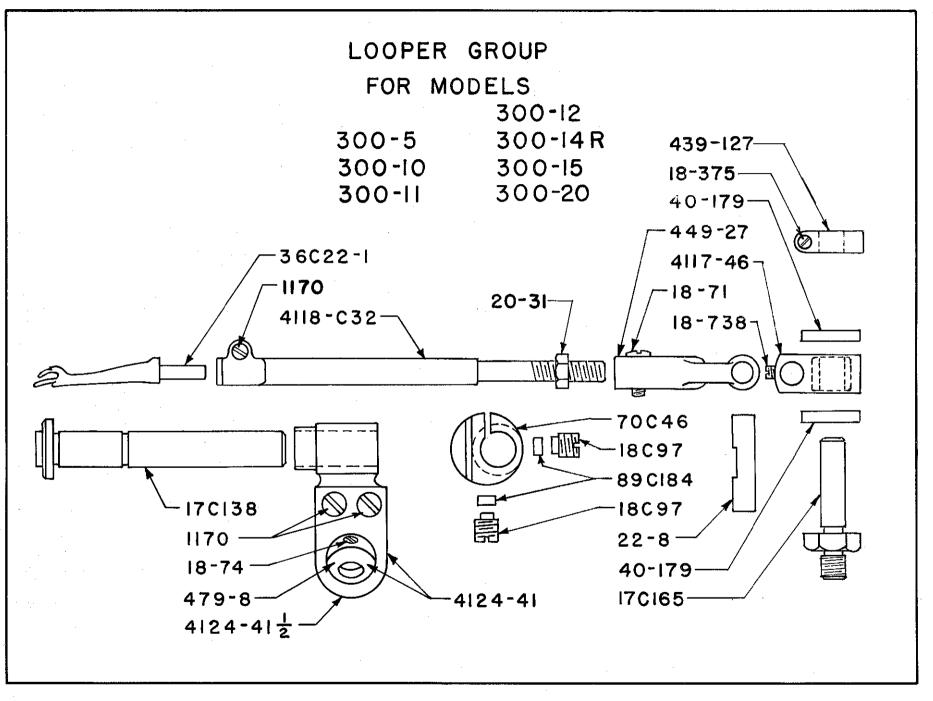
# MAIN SHAFT GROUP

PLATE 2	1	MODEL 300-20	
14 C 23B1	Main Shaft.	27 C 146	Driving Gear on main shaft.
18 C 84	Screw for feed adjustment sleeve.	33 C 6-2	Eccentric on main shaft for feed and needle.
18 C 97	Set Screw (Dog Point) for belt pulley.	<b>40</b> C 9A	Washer for rib eccentric on main shaft.
	Set Screw (Dog Point) for rib eccentric on main shaft.		Feed Lever.
	Set Screw (Dog Point) for driving gear on main shaft.	46 C 10-3	Link for driving rocker crank.
18 C 98	Set Screw for belt pulley.	57 C 24-1	Pulley for belt.
	Set Screw for eccentric for feed and needle drive.		Feed Riser Bushing Complete.
18 C 100	Screw for feed riser disc collar.	433 C 9B-1	Rib Eccentric on main shaft.
18 C 215-1	Screw for washer for rib eccentric.	433 C 37	Eccentric Sleeve for feed adjustment.
18 C 904	Screws for feed.	439 C 234	Feed Riser Disc Collar.
		444 C 171	Feed Riser Disc Complete.



### MAIN SHAFT GROUP

PLATE 3	MODEL 300-12
14 C 23B-1	Main Shaft.
18 C 84	Screw for feed adjustment sleeve.
18 C 97	Screw (Dog Point) for belt pulley. Screw (Dog Point) for driving gear on main shaft.
18 C 98	Set Screw for belt pulley. Set Screw for eccentric for feed and needle drive.
18 C 100	Screw for feed riser disc collar.
18 C 904	Screws for feed.
27 C 146	Driving Gear on main shaft.
33 C 6-2	Eccentric on main shaft for feed and needle.
45 C 168	Feed Lever.
57 C 24-1	Pulley for belt.
416 C 320	Feed Riser Bushing Complete.
433 C 37	Eccentric Sleeve for feed adjustment.
439 C 234	Feed Riser Disc Collar.
444 C 171	Feed Riser Disc Complete.



# LOOPER DRIVE GROUP

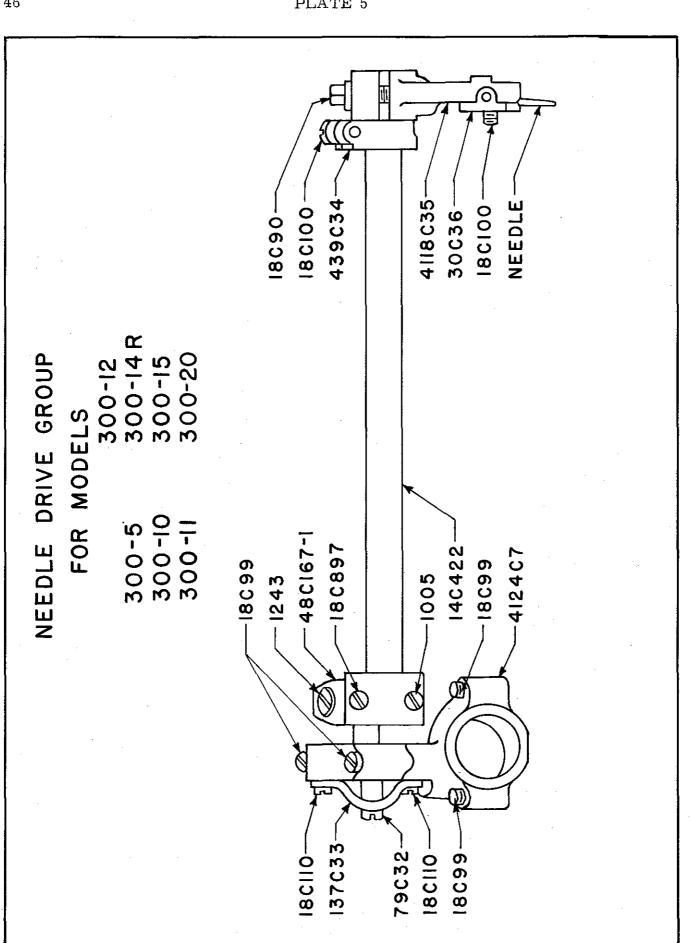
PLATE 4	300-5 300-10	300-11 300-12 300-14 R	300-15 300-20
17 C 138	Looper Ball Joint Stud.	70 C 46	Eccentric Bushing in head for adjusting looper.
17 C 165	Screw Stud for looper bearing.	89 C 184	Plugs for screw to clamp looper eccentric
18-71	Screw to clamp looper yoke.	* }	bushing.
18-74	Spot Screw for looper ball joint.	439-127	Looper Bearing Collar.
18 C 97	Screw for clamping looper eccentric adjusting bushing.	449-27	Looper Yoke Complete with screw, 18-71.
		479-8	Looper Ball Joint with screw 18-74.
18-375	Screw for looper bearing collar.	4117-46	Looper Bearing Complete.
18-738	Set Screw for looper bearing pin.	4118 C 32	Looper Carrier Complete with screw 1170.
20-31	Nut for 4118 C 32.	4124-41-1/2	Looper Ball Joint Casing.
22-8	Pin for looper yoke.		
36 C 22-1	Looper.	4124-41	Looper Ball Joint Complete with 479-8.
40-179	Washer for looper bearing.	1170	Screws for looper ball joint casing and for clamping looper.

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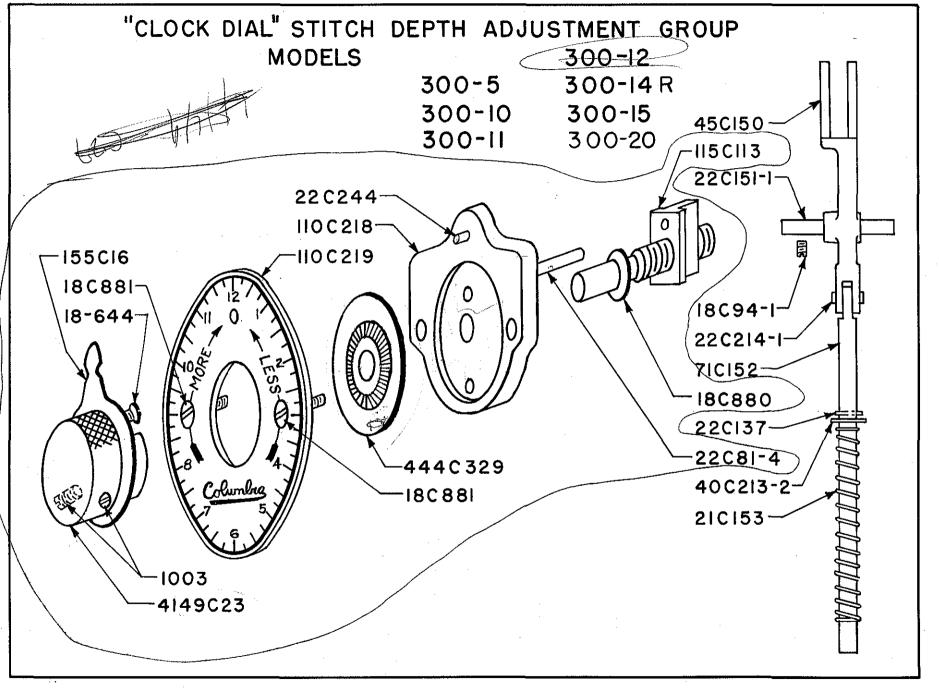


# NEEDLE DRIVE GROUP

# MODELS

300-15 300-20

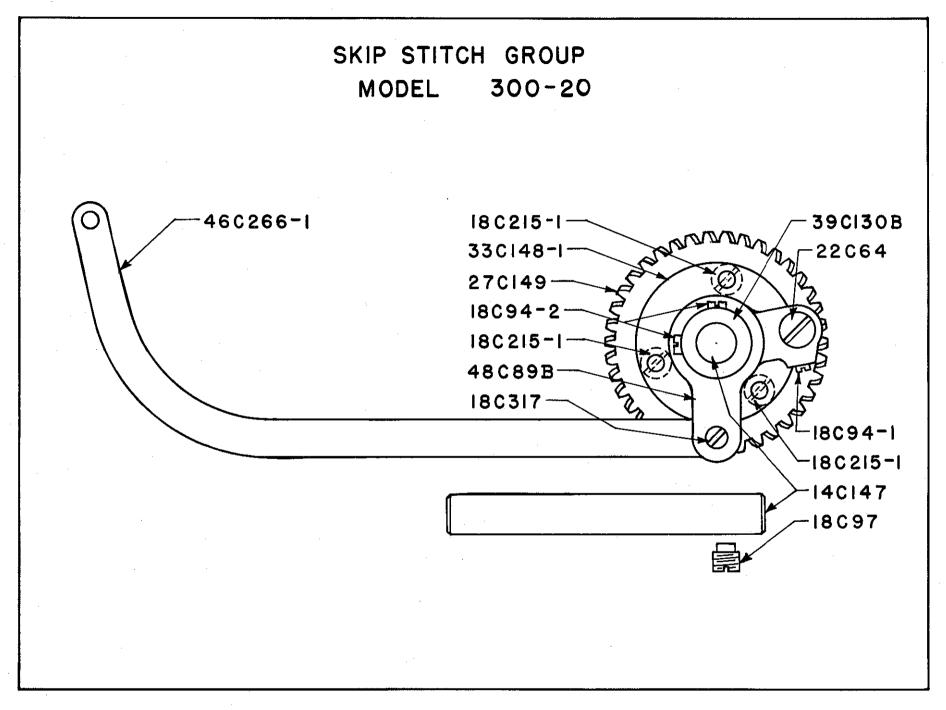
PLA'	ΓE	5	300-5 300-10	300-11 300-12 300-14 R	t
14	С	422	Needle Drive Shaft.		
. 18	С	90	Screw for clamping needle arm.		
18	C	99	Screws for needle shaft ball joint.		
18	С	100	Screw for clamping needle shaft collar. Screw for needle clamp.		
18	С	110	Screw for needle shaft eccentric ball retain	ier.	
18	С	897	Screw (spot) for needle shaft crank.		
30	C	36	Needle Clamp.		
48	C	167-1	Crank for driving needle shaft.		
79	С	32	Ball eccentric Stud for needle shaft.		
137	C	33	Retainer for needle shaft eccentric ball.		
439	С	34	Collar for needle shaft.		
4118	С	35	Needle Arm.		
4124	С	7	Ball Joint Casing with screws for needle sh	naft.	
1005			Set Screw for needle shaft crank.		
1243			Screw for clamping needle shaft crank.		



# "CLOCK DIAL"

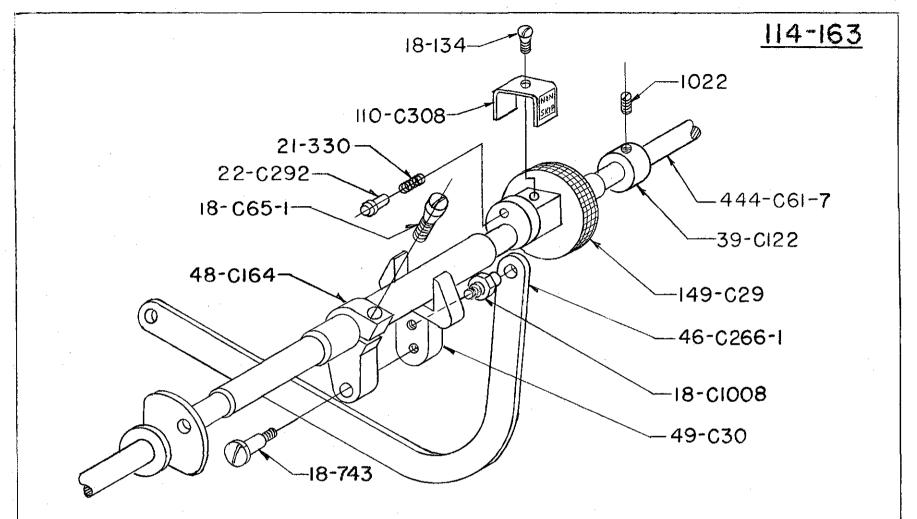
# STITCH DEPTH ADJUSTMENT GROUP

PLATE 6	300-5 300-10	300-11 300-12 300-14 R	300-15 300-20
18 C 94-1	Set Screw for Fulcrum pin for regulator fork, 45 C 150.	40 C 213-2	Washer for stitch depth regulator rod.
•		45 C 150	Fork for rod for moving work apron.
18-644	Screws for indicator for stitch depth regulator.	71 C 152	Rod in stitch depth regulator for moving work apron.
18 C 880	Screw for adjusting depth of stitch.		The state of the s
18 C 881	Screws for "Clock Dial" plate.	110 C 218 110 C 219	Plate for mounting "Clock Dial". "Clock Dial" Plate.
21 C 153	Spring for stitch depth regulator rod.	115 C 113	Stitch Depth Regulator Block.
22 C 81-4	Pin Guide in mounting plate for "Clock Dial".	155 C 16	Indicator for stitch depth regulator.
22 C 137	Cotter Pin for spring on stitch depth regulator rod.	444 C 329	Ratchet Disc with pin for stitch depth regulator.
22 C 151-1	Pin Fulcrum for regulator fork.	4149 C 23	Stitch Depth Regulator Knob.
22 C 214-1	Hinge Pin for regulator fork and rod.	1003	Set Screws for stitch depth regulator knob.
22 C 244	Pin Stop in mounting plate for "Clock Dial"	se j	



### SKIP STITCH GROUP

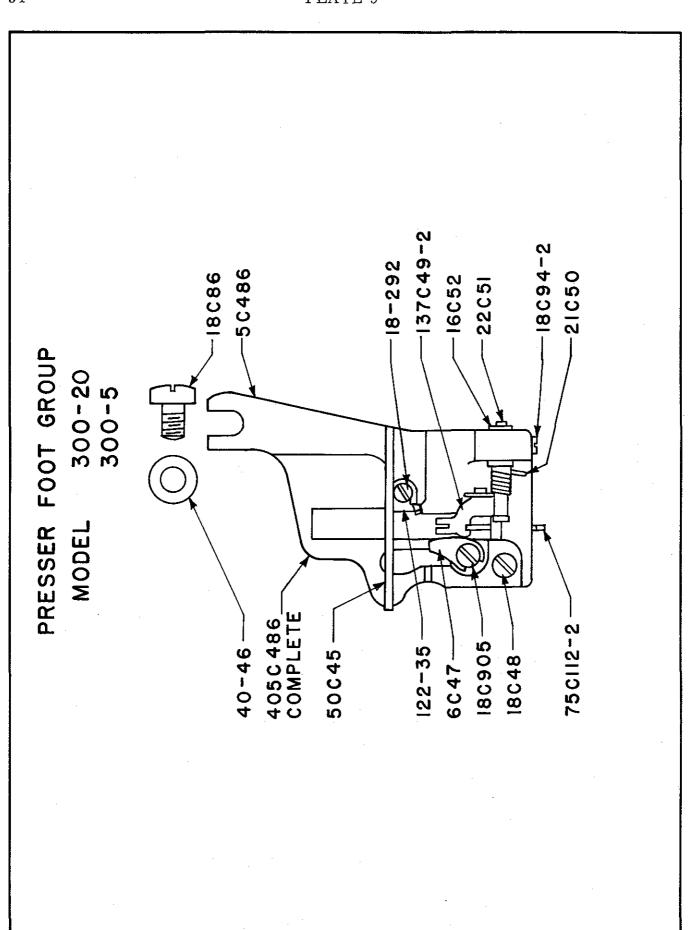
PLATE 7	MODEL 300-20
14 C 147	Shaft for driven gear.
18 C 94-1	Set Screw for crank for rocking rib shaft.
18 C 94-2	Set Screw for collar 39 C 130 B, for driven gear.
18 C 97	Set Screw for driven gear shaft.
18 C 215-1	Screws for eccentric to driven gear.
18 C 317	Screw Bearing for rib rocker crank and link.
22 C 64	Pin Bearing for crank for rocking rib shaft.
27 C 149	Gear (Driven) for skip stitch rib.
33 C 148-1	Eccentric for skip stitch rib driven gear.
39 C 130 B	Collar for driven gear 27 C 149.
46 C 266-1	Link for driving rib shaft.
48 C 89 B	Crank for rocking rib shaft.



ASSEMBLY OF PARTS FOR SKIP-STITCH MECHANISM
FOR COLUMBIA MODEL 300-20

#### SKIP STITCH MECHANISM

#### MODEL 300-20 PLATE 8 Clamp Screw for crank 48 C 164. 18 C 65 - 118-134 Screw for indicator plate. Bearing Screw for yoke 49 C 30. 18-743 Bearing Screw for link 46 C 266-1. 18 C 1008 Spring for pin 22 C 292. 21-330 Pin for locating regulator 149 C 29. 22 C 292 Thrust Collar for regulator 149 C 29. 122 39 C 266-1 Link for driving rib shaft. Crank for rib shaft. 48 C 164Yoke for skip stitch. 30 49 C Indicator Plate. 110 C 308 Regulator for quick change. 149 C 29 Rib Shaft with rib. 444 C 61 - 7Set Screw for collar 39 C 122. 1022



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PLATE 9	300-5	300-20
5 C 486	Presser Foot Only.	
6 C 47	Needle Guide.	
16 C 52	Bushing (Eccentric) for cloth retainer.	
18 C 48	Screw for edge guide.	
18 C 86	Screw for attaching presser foot to head.	
18 C 94-2	Screw for clamping eccentric bushing 16 C 52.	
18-292	Screw for chaining finger.	
18 C 905	Screw for needle guide.	
21 C 50	Spring for cloth retainer.	
22 C 51	Hinge Pin for cloth retainer.	
40-46	Washer for presser foot screw 18 C 86.	
50 C 45	Presser Foot Bridge.	
75 C 112-2	Edge Guide.	
122-35	Chaining Finger.	
137-C49-2	Cloth Retainer.	
405 C 486	Presser Foot Complete Assembly.	

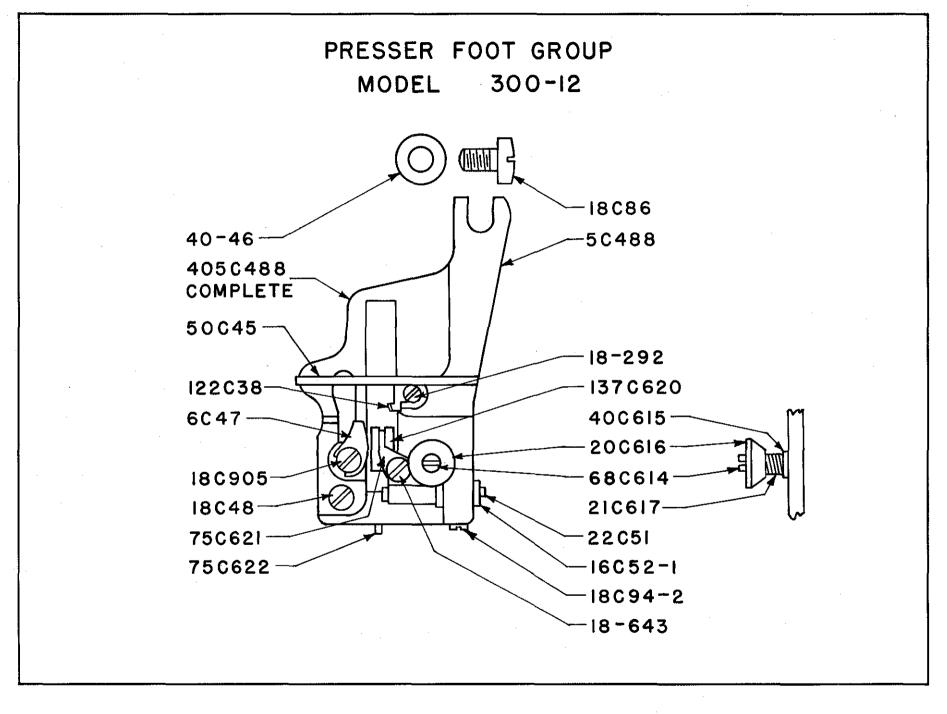


PLATE 10		300-12	
5 C 488	Presser Foot Only.	21 C 617	Spring for cloth retainer.
6 C 47	Needle Guide.	22 C 51	Hinge Pin for cloth retainer.
16 C 52-1	Bushing (Eccentric) for cloth retainer.	40-46	Washer for presser foot screw, 18 C 86.
18 C 48	Screw for edge guide, 75 C 622.	40 C 615	Washer for cloth retainer staff.
18 C 86	Screw for attaching presser foot to head.	50 C 45	Presser Foot Bridge.
18 C 94-2	Screw for clamping eccentric bushing	68 C 614	Staff for cloth retainer.
10.000	16 C 52.	75 C 621	Edge Guide on cloth retainer.
18-292	Screw for chaining finger.	75 C 622	Edge Guide on presser foot.
18 C 643	Screw for edge guide, 75 C 621.	122 C 38	Chaining Finger.
18 C 905	Screw for needle guide.	137 C 620	Cloth Retainer.
20 C 616	Nut for cloth retainer staff.	405 C 488	Presser Foot Complete Assembly.

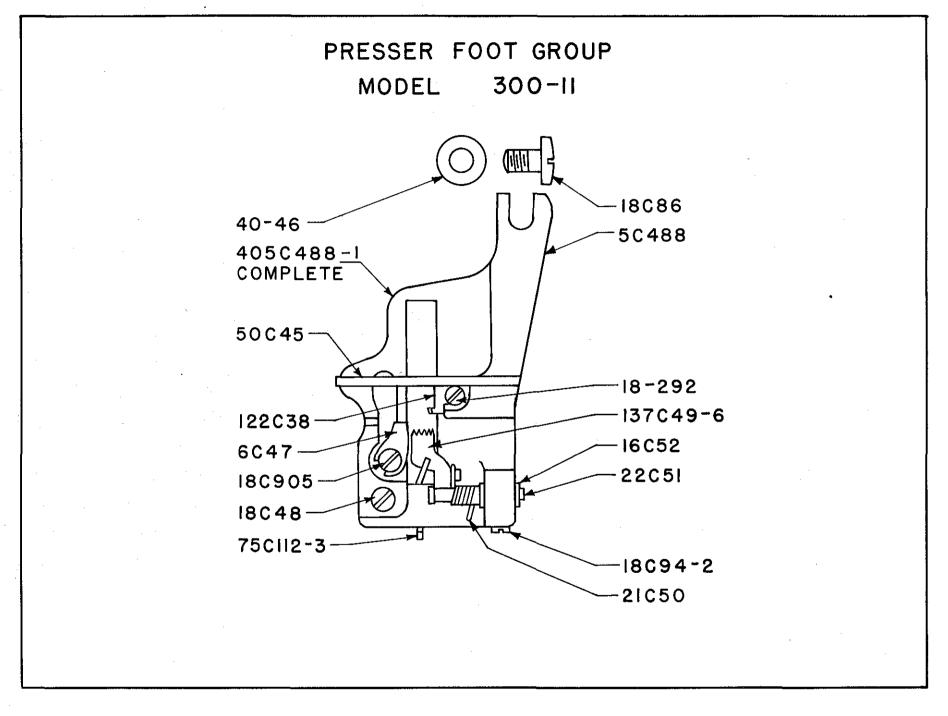


PLATE 11	300-11
5 C 488	Presser Foot Only.
6 C 47	Needle Guide.
16 C 52	Bushing (Eccentric) for cloth retainer.
18 C 48	Screw for edge guide.
18 C 86	Screw for attaching presser foot to head.
18 C 94-2	Screw for clamping eccentric bushing 16 C 52.
18-292	Screw for chaining finger.
18 C 905	Screw for needle guide.
21 C 50	Spring for cloth retainer.
22 C 51	Hinge Pin for cloth retainer.
40-46	Washer for presser foot screw 18 C 86.
50 C 45	Presser Foot Bridge.
75 C 112-3	Edge Guide.
122 C 38	Chaining Finger.
137 C 49-6	Cloth Retainer.
405 C 488-1	Presser Foot Complete Assembly.

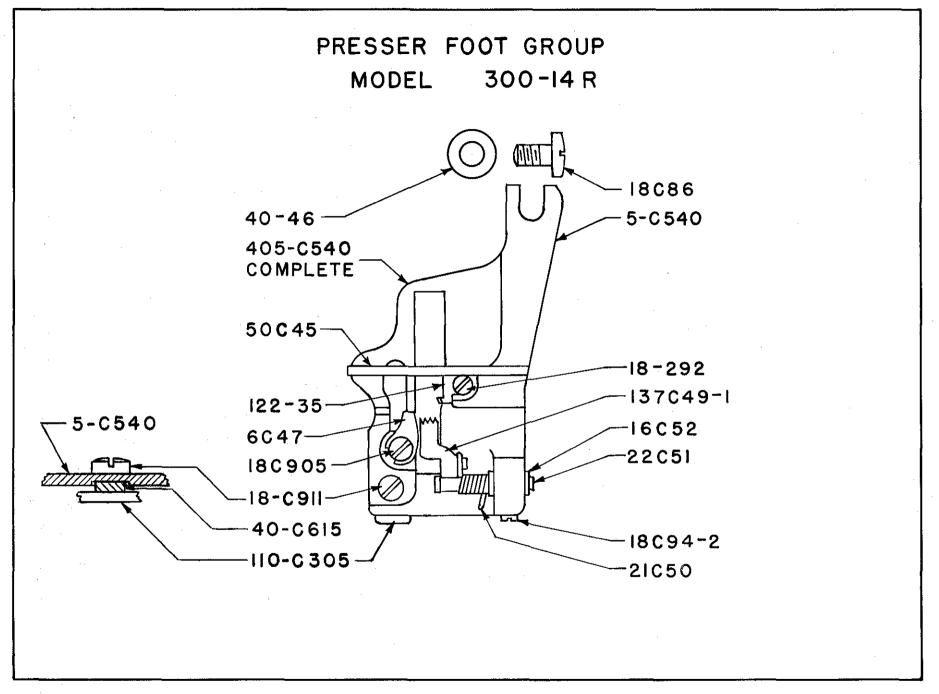


PLATE 12	300-1	4 R
5 C 540	Presser Foot Only.	
6 C 47	Needle Guide.	
16 C 52	Bushing (Eccentric) for cloth retainer.	
18 C 86	Screw for attaching presser foot to head.	
18 C 94-2	Screw for clamping eccentric bushing 16 C 52.	
18-292	Screw for chaining finger.	
18 C 905 18 C 911 21 C 50	Screw for needle guide. Screw for presser foot. Spring for cloth retainer.	
22 C 51	Hinge Pin for cloth retainer.	
40-46	Washer for presser foot screw, 18 C 86.	
40 C 615	Washer for 110 C 305.	
50 C 45	Presser Foot Bridge.	
110 C 305	Plate for roll padding.	
122-35	Chaining Finger.	
137 C 49-1	Cloth Retainer.	
405 C 540	Presser Foot Complete Assembly.	



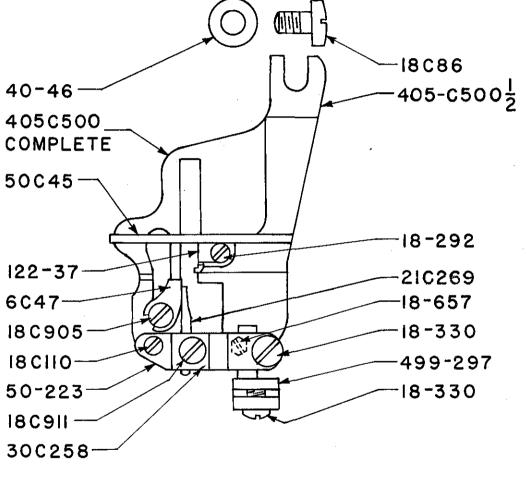


PLATE 13	300-10
6 C 47	Needle Guide.
18 C 86	Screw for attaching presser foot to head.
18 C 110	Screw for attaching folder bracket to presser foot, left side.
18-292	Screw for chaining finger.
18-330	Screw in folder bracket for clamping 499-297. Screw for clamping folder.
18-657	Screw for attaching folder bracket to presser foot, right side.
18 C 905	Screw for needle guide.
18 C 911	Screw for spring cloth retainer clamp.
21 C 269	Hemmer Spring.
30 C 258	Clamp for spring cloth retainer.
40-46	Washer for presser foot screw, 18 C 86.
50 C 45	Presser Foot Bridge.
50-223	Folder Bracket.
122-37	Chaining Finger.
405- C500 405-50 <del>0</del> -	Presser Foot, Complete Assembly.
405 C 500-1/2	Presser Foot with bridge only.
499-297	Folder Holder.

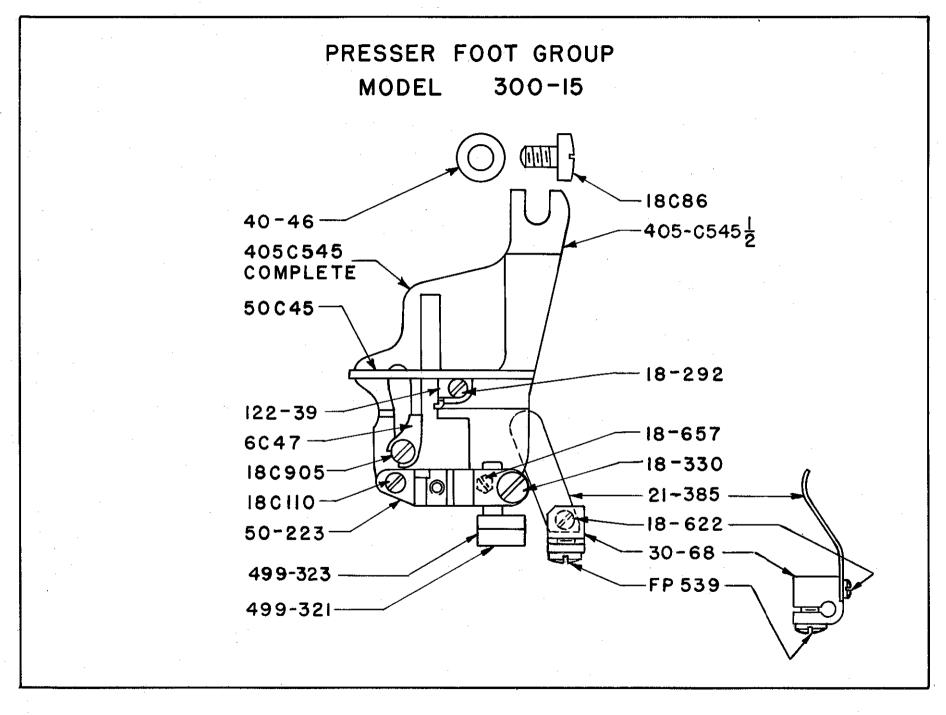
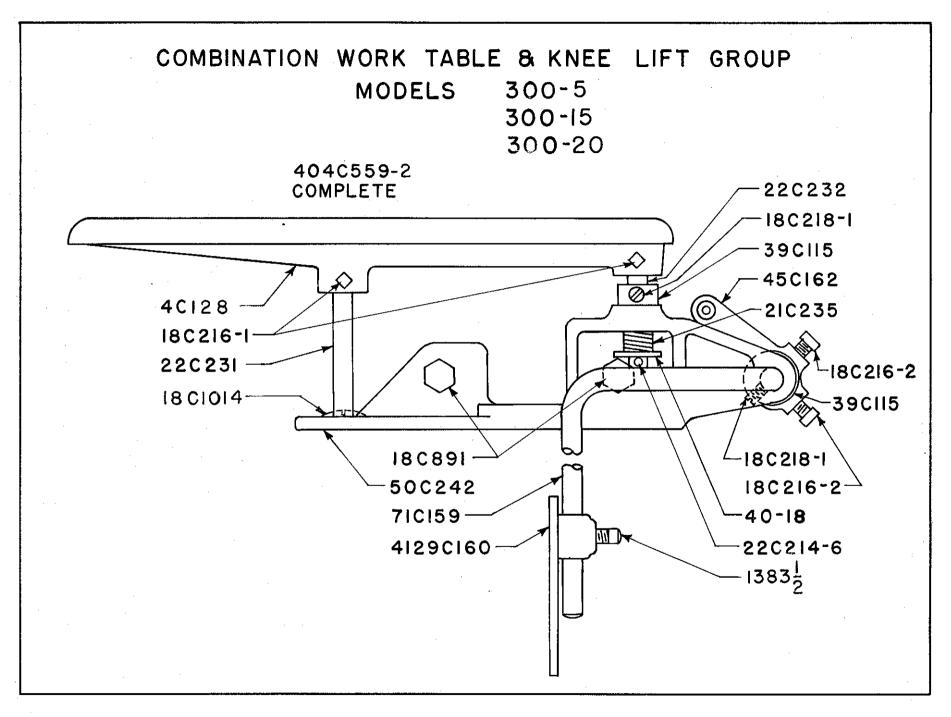
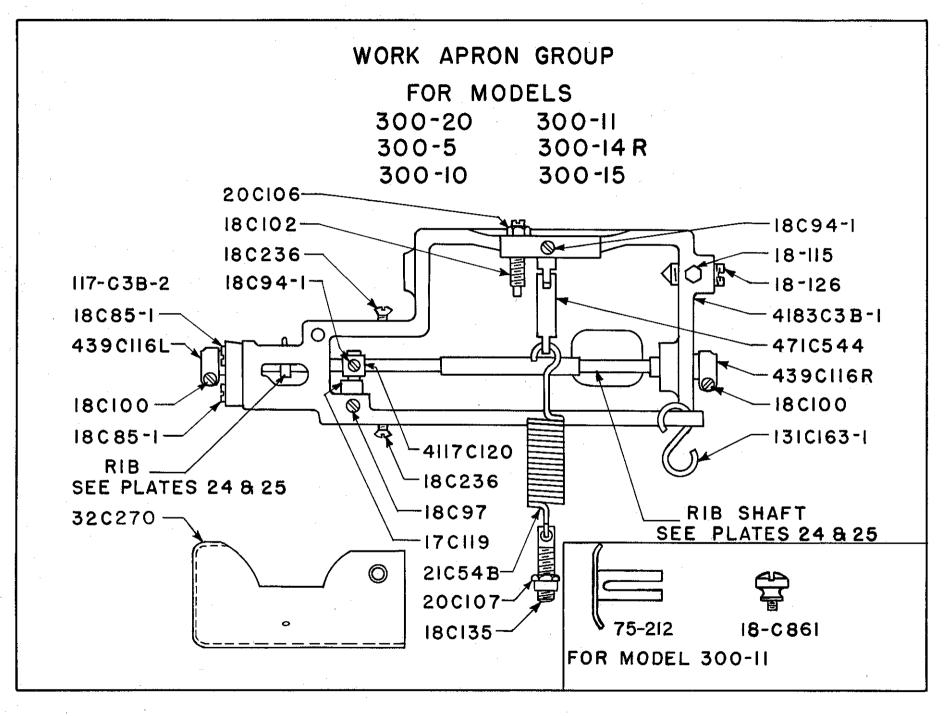


	PLATE 14	300-15
	6 C 47	Needle Guide.
	18 C 86	Screw for attaching presser foot to head.
	18 C 110	Screw for attaching folder bracket to presser foot, left side.
	18-292	Screw for chaining finger.
	18 330	Screw in folder bracket for clamping 499-321, 499-323. Screw for clamping folder.
	18-622	Screw for spring 21-385.
	18-657	Screw for attaching folder bracket to presser foot, right side.
	18 C 905	Screw for needle guide.
	21-385	Spring for folder.
	30-68	Spring Clamp for folder.
	40-46	Washer for presser foot screw, 18 C 86.
	50 C 45	Presser Foot Bridge. (Component of 405 C 545-1/2.)
	50-223	Folder Bracket.
	122-39	Chaining Finger.
	405 C 545	Presser Foot Complete Assembly.
	405 C 545-1/	2 Presser Foot with bridge only.
	499-321	Folder Holder for 3/16", 1/4", 5/16" folders.
	499-323	Folder Holder for 3/8" folder only)
F]	P539	Screw for clamping folder.



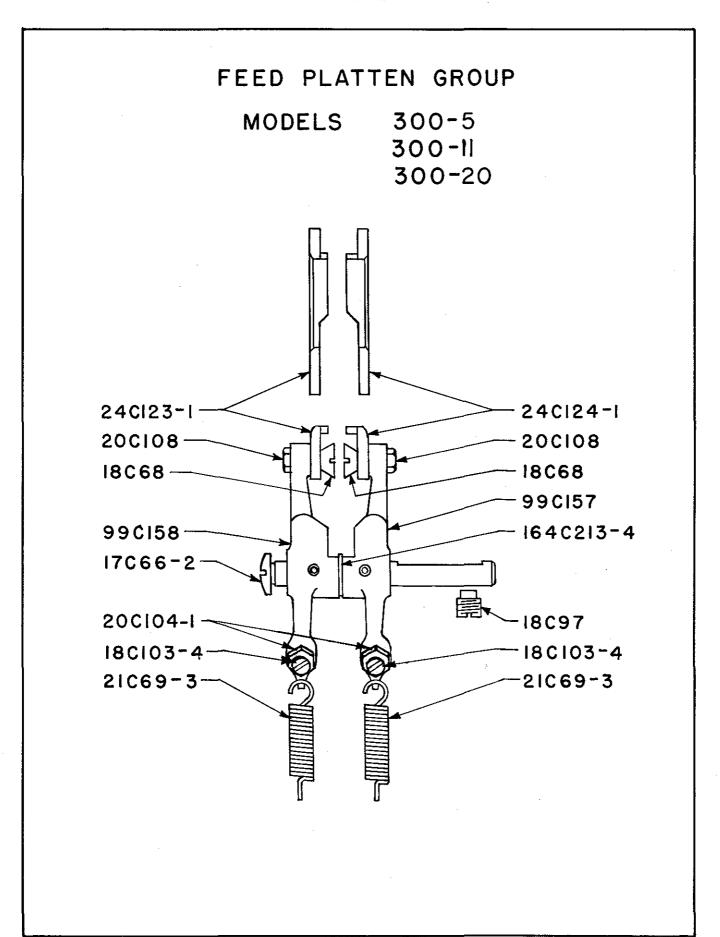
### WORK TABLE AND KNEE LIFT GROUP

PLATE	£ 15	300-5	300-15	300-20
+ 4 C	128	Work Table.	✓ 22 C 231	Work Table Rest Pin.
) × 18 C	216-1.	Set Screw for work table rest pin. Set Screw for work table hinge pin.	¥ 22 C 232·	Work Table Hinge Pin.
2) ~ 18 C :	216-2*	Set Screw for knee lift rod lever.	₹ ✓ 39 C 115 ·	Collar for knee lift rod. Collar for work table hinge pin.
¥ 18 C :	218-1.	Set Screw for knee lift rod collar.	<del>X</del> 40-18 ·	Washer for work table hinge pin.
•	•	Set Screw for work table hinge pin collar.	∠ 45 C 162 ·	Knee Lift Rod Lever.
18 C	891	Screws for attaching work table bracket	₹ 50 C 242 ·	Work Table Bracket.
V 10 C 1	014	to machine.	→ 71 C 159 ·	Knee Lift Rod.
★ 18 C 10		Stop Screw for rest pin.	404 C 559-2	Work Table and Knee Lift Complete.
¥ 21 C 3		Spring for work table hinge pin.	√4129 C 160 ·	Knee Press Pad.
A 22 C 2	214-6,	Pin for washer for work table hinge pin.	1383-1/2	Set Screw for knee press pad.



#### WORK APRON GROUP

PLATE 16		300-5 300-10	300-11 300-14 R	300-15 300-20
17 C 119	Stud for rib shaft	support.	20 C 106	Nut for adjustable stop screw for work apron.
18 C 85-1	Screws for work a	pron bearings.	20 C 107	Nut for work apron spring adjusting screw.
18 C 94-1	Screw for rib shar		21 C 54B	Work Apron Spring.
10 G 05	Screw for work apron spring hinge joint.		32 C 270	End Cover for work apron.
18 C 97		rib shaft support.	75-212	Edge Guide for trouser bottoms,
18 C 100	Screw for clamping for rib shaft.	g collar (left hand)		Model 300-11.
		g collar (right hand)	117 C 3B-2	End Bearing.
10 0 100			131 C 163-1	"S" Hook for knee lift.
18 C 102		stop) for work apron.	439 C 116R	Collar (right hand) for rib shaft.
18-115	Set Screw for wor 18-126.	k apron pivot screw,	439 C 116L	Collar (left hand) for rib shaft.
18-126	Screw Pivot for w	ork apron.	471 C 544	Work Apron Spring Hinge Joint.
18 C 135	Screw for adjustir	g work apron spring.	4117 C 120	Rib Shaft Support.
18 C 236	Screws for work a	pron cover.	4183 C 3B-1	Work Apron with bearings and bushings.
18 C 861	Screw for 75-212			



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## FEED PLATTEN GROUP

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PLATE 17	300-5	300-11	300-20	
17 C 66-2	Stud for fe	ed platten carr	ier.	
18 C 68	Screw for	bearing for fee	d plattens.	
18 C 97	Set Screw	for feed platter	carrier stud.	
18 C 103-4	Screws for	· adjusting tens	ion of spring #21 (	C 69-3.
20 C 104-\	Nut for loc	king feed platt	en carrier adjustir	g screws.
20 C 108	Nut for fee	d platten beari	ng screws.	
21 C 69-3	Spring for	feed platten ca	rriers.	
24 C 123-1	Feed Platt	en, left hand.		
24 C 124-1	Feed Platt	en, right hand.		
99 C 157	Feed Platt	en Carrier, ri	ght hand.	
99 C 158	Feed Platt	en Carrier, le	ft hand.	
164 C 213-4	Feed Platt	en Carrier Spa	cing Shims.	

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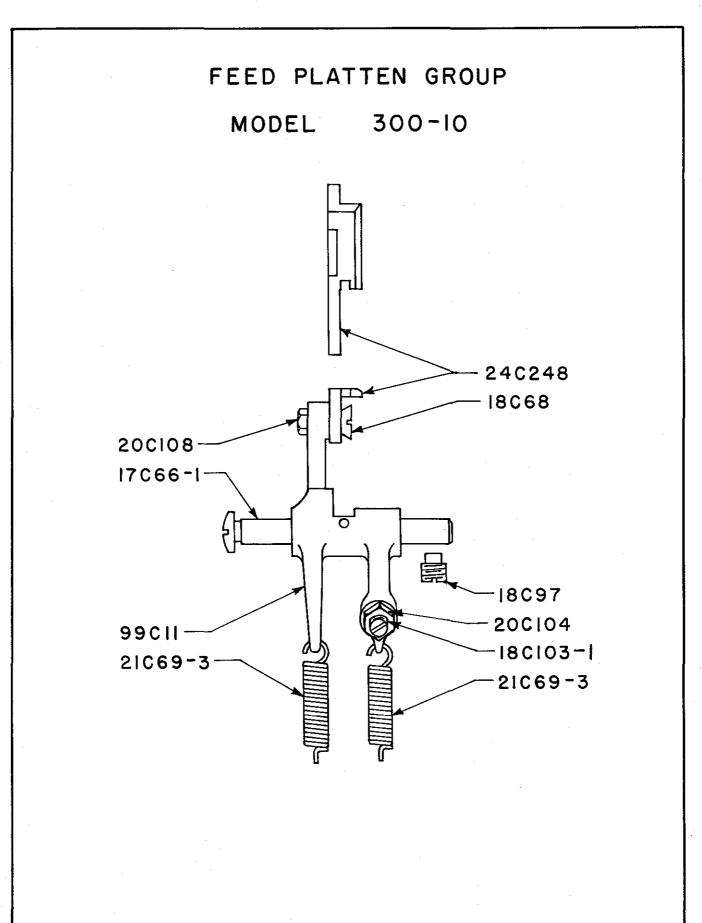
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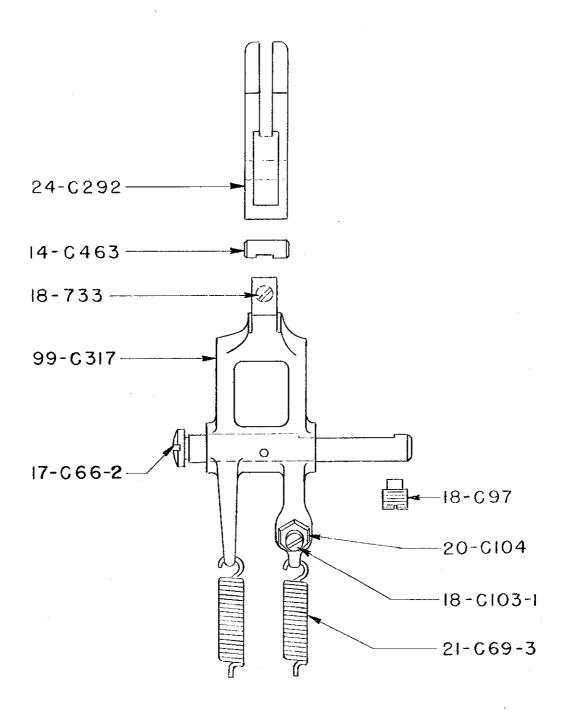
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PLATE 18	300-10
17 C 66-1	Stud for feed platten carrier.
18 C 68	Screw Bearing for feed platten.
18 C 97	Set Screw for feed platten carrier stud.
18 C 103-1	Screw for adjusting tension of spring, #21 C 69-3.
20 C 104	Nut for locking feed platten carrier adjusting screw.
20 C 108	Nut for feed platten bearing screw.
21 C 69-3	Spring for feed platten carrier.
24 C 248	Feed Platten.
99 C 11	Feed Platten Carrier.

# FEED PLATTEN GROUP MODEL 300-14R



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# FEED PLATTEN GROUP

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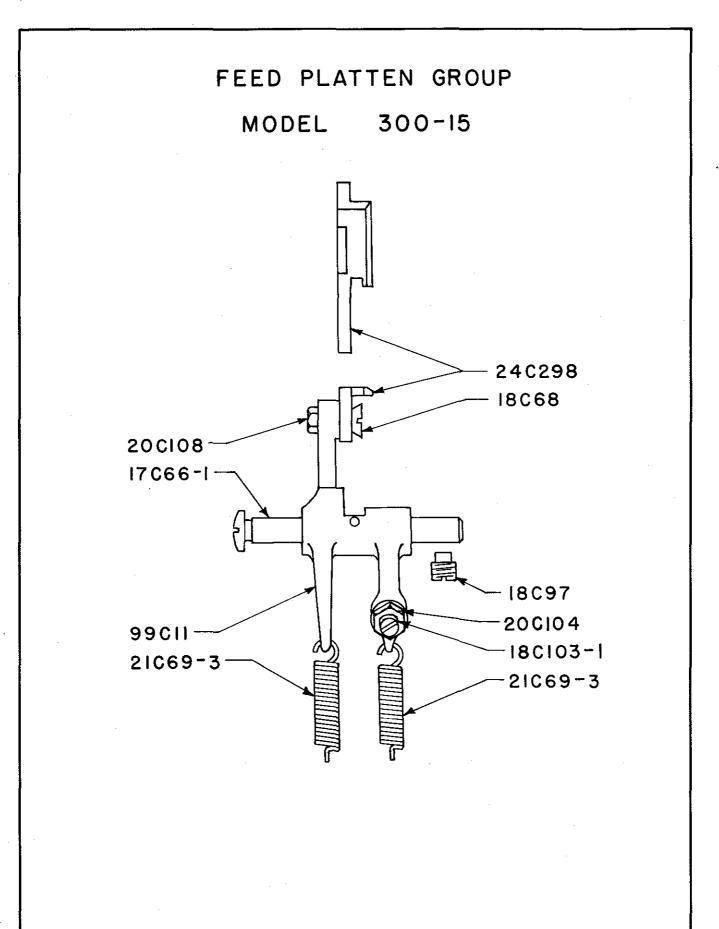
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# ${\tt MODEL}$

PLATE 19	300-14 R
14 C 463	Shaft for feed plate.
17 C 66-2	Stud for feed platten carrier.
18 C 97	Set Screw for feed platten carrier stud.
18 C 103-1	Screw for adjusting tension of spring 21 C 69-3.
18-733	Set Screw for 14 C 463.
20 C 104	Nut for locking 18 C 103-1.
21 C 69-3	Spring for feed platten carrier.
24 C 292	Feed Platten.
99 C 317	Feed Platten Carrier.



# FEED PLATTEN GROUP

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PLATE 20	300-15
17 C 66-1	Stud for feed platten carrier.
18 C 68	Screw Bearing for feed platten.
	-
18 C 97	Set Screw for feed platten stud.
18 C 103-1	Screw for adjusting tension of spring, #21 C 69-3.
20 C 104	Nut for locking feed platten carrier adjusting screw.
20 C 108	Nut for feed platten bearing screw.
21 C 69-3	Spring for feed platten carrier.
24 C 298	Feed Platten.
99 C 11	Feed Platten Carrier.

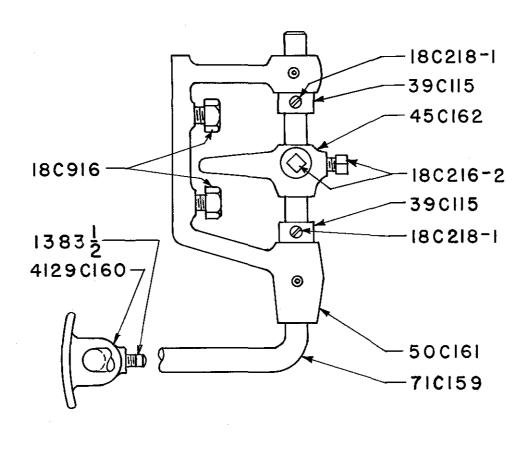
KNEE LIFT GROUP

MODELS 300-10

300-11

300-12

300-14R



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# KNEE LIFT GROUP

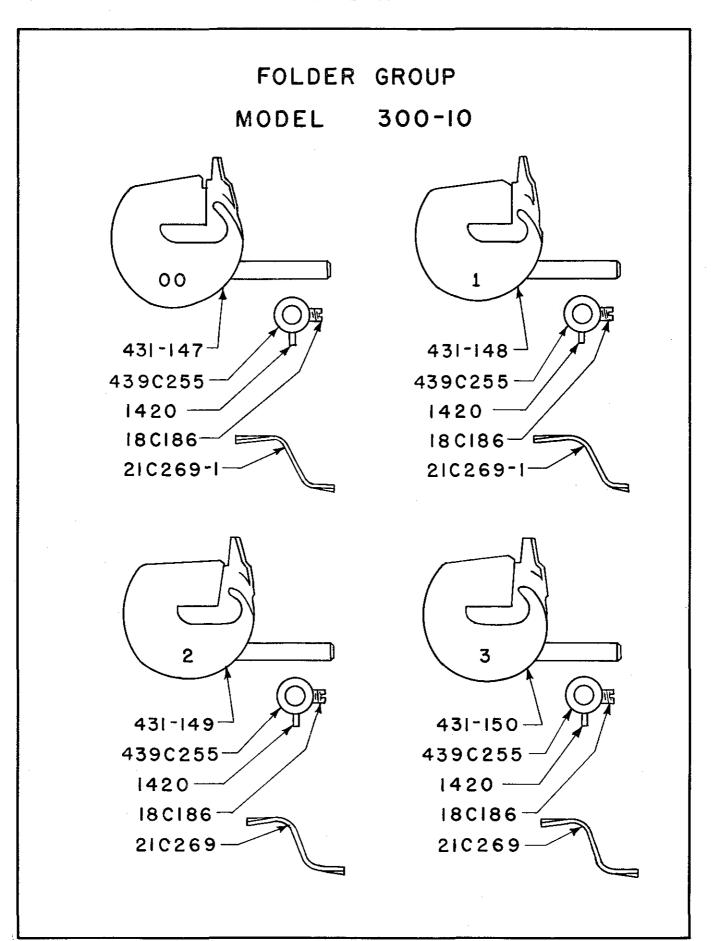
# MODELS

PLATE 21	300-10 300-11	300-12 300-14 R
18 C 216-2	Set Screw for knee lift r	od lever.
18 C 218-1	Set Screws for knee lift	rod collars.
18 C 916	Screws for knee lift bra	cket.
39 C 115	Collars for knee lift roo	l <b>.</b> .
45 C 162	Knee Lift Rod Lever.	·
50 C 161	Knee Lift Bracket.	
71 C 159	Knee Lift Rod.	
4129 C 160	Knee Press Pad.	
1383-1/2	Screw for knee press pa	d.

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# FOLDER GROUP

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# ${\tt MODEL}$

PLATE 22	300-10
	ROLLED EDGE FOLDERS
18 C 186	Set Screws for folder collar.
21 C 269	Spring for No. 2, No. 3 and No. 4 folder.
21 C 269-1	Spring for No. 00 and No. 1 folder.
1420	Folder Collar Locating Pin.
431-147	Folder No. 00 for extra light material.
431-148	Folder No. 1 for light material.
431-149	Folder No. 2 for medium material.
431-150	Folder No. 3 for medium heavy material.
431-159	Folder No. 4 for extra heavy material. (Not illustrated)
439 C 255	Collar for folders, complete with pin 1420.



431-175 3 L

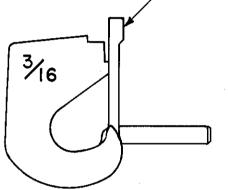
 $431-175 \frac{1}{4}L$ 

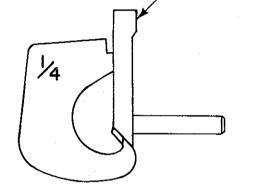
431-175 3 M

 $431 - 175 \frac{1}{4} M$ 

431-175 <del>|</del> H

431-175 3 H





NOTE: FOLDERS ALSO AVAILABLE FOR

 $\frac{5}{16}$ AND  $\frac{3}{8}$  SEAMS.

#### FOLDER GROUP

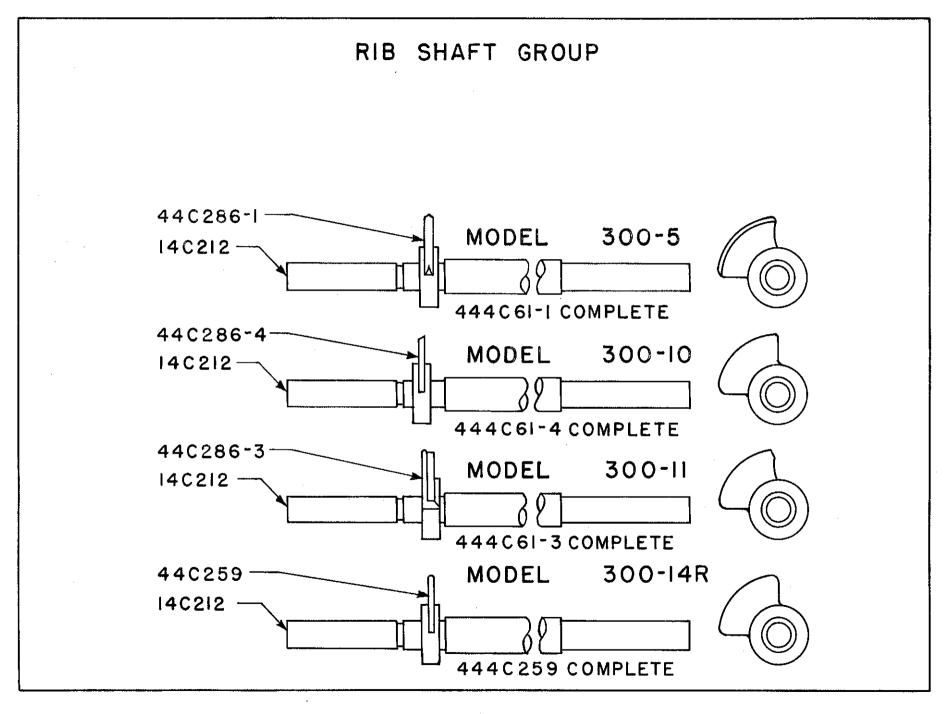
#### MODEL

#### PLATE 23

300-15

#### BOOK SEAM FOLDERS

431-175-3/16 L	Folder for light material, 3/16 inch inturn.
431-175-3/16 M	Folder for medium material, 3/16 inch inturn.
431-175-3/16 H	Folder for heavy material, 3/16 inch inturn.
431-175-1/4 L	Folder for light material, 1/4 inch inturn.
431-175-1/4 M	Folder for medium material, 1/4 inch inturn.
431-175-1/4 H	Folder for heavy material, 1/4 inch inturn.
431-175-5/16 L	Folder for light material, 5/16 inch inturn.
431-175-5/16 M	Folder for medium material, 5/16 inch inturn.
431-175-5/16 H	Folder for heavy material, 5/16 inch inturn.
431-175-3/8 L	Folder for light material, 3/8 inch inturn.
431-175-3/8 M	Folder for medium material, 3/8 inch inturn.
431-175-3/8 H	Folder for heavy material, 3/8 inch inturn.



#### RIB SHAFT GROUP

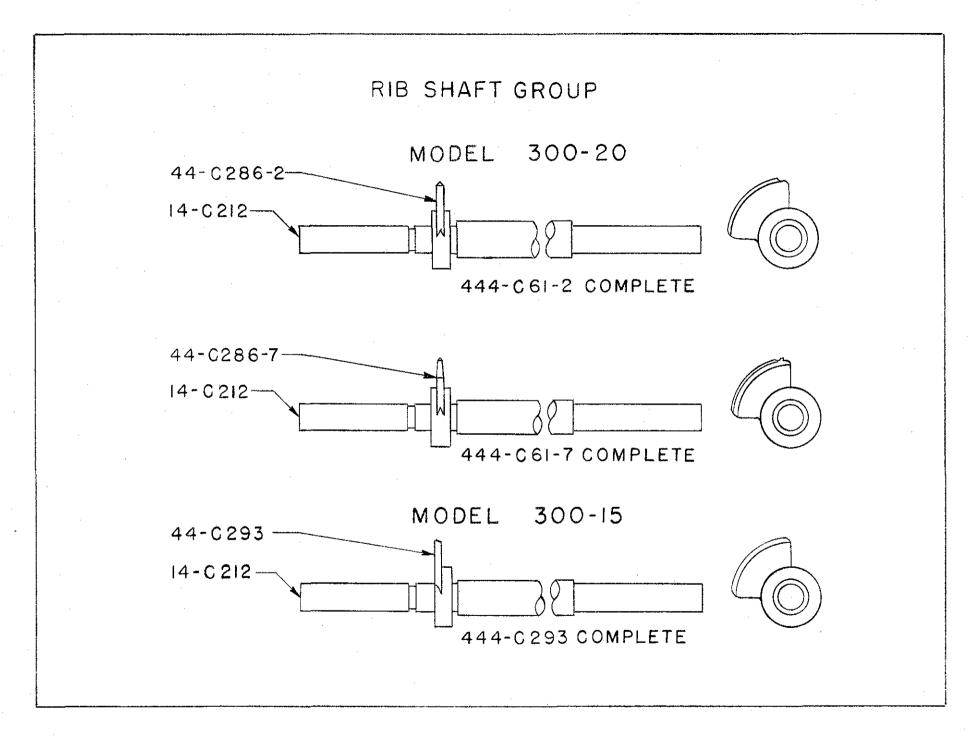
300-11 300-14 R

#### MODELS

PLATE 24	300-5 300-10
	MODEL 300-5
14 C 212	Rib Shaft.
44 C 286-1	Rib.
444 C 61-1	Rib Shaft with rib.
	MODEL 300-10
14 C 212	Rib Shaft.
44 C 286-4	Rib.
444 C 61-4	Rib Shaft with rib.
•	MODEL 300-11
14 C 212	Rib Shaft.
44 C 286-3	Rib.
444 C 61-3	Rib Shaft with rib
	MODEL 300-14 R
14 C 212	Rib Shaft.
44 C 259	Rib.

Rib Shaft with rib.

444 C 259



#### RIB SHAFT GROUP

#### MODELS

PLATE 25 300-20

MODEL 300-15

14 C 212 Rib Shaft.

44 C 293 Rib.

444 C 293 Rib Shaft with rib.

MODEL 300-20

14 C 212 Rib Shaft.

44 C 286-2 Rib.

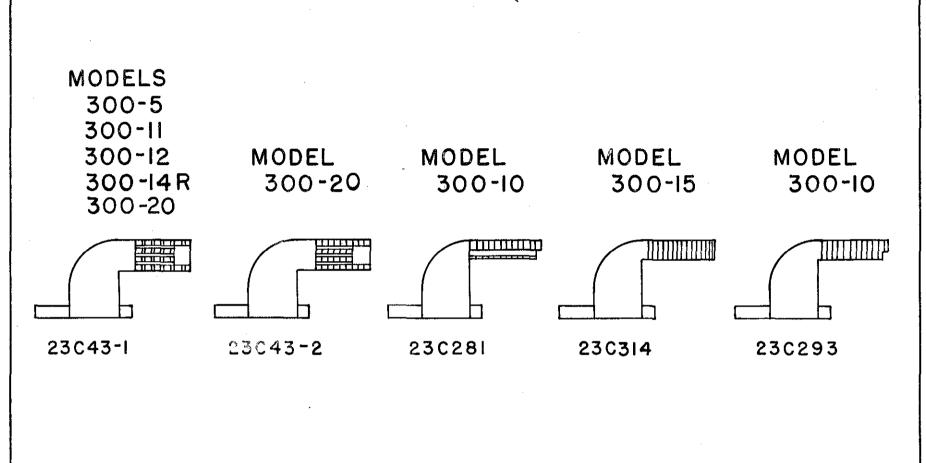
444 C 61-2 Rib Shaft with rib.

14 C 212 Rib Shaft.

44 C 286-7 Rib.

444 C 61-7 Rib Shaft with rib.

# FEED POINT GROUP



#### FEED POINTS

MODELS

PLATE 26 300-5 300-11 300-14 R 300-10 300-12 300-20

MODELS 300-5, 300-11, 300-12 and 300-14 R

23 C 43-1 Feed Point, coarse.

MODEL 300-10

23 C 281 Feed Point used for fine rolled edge.

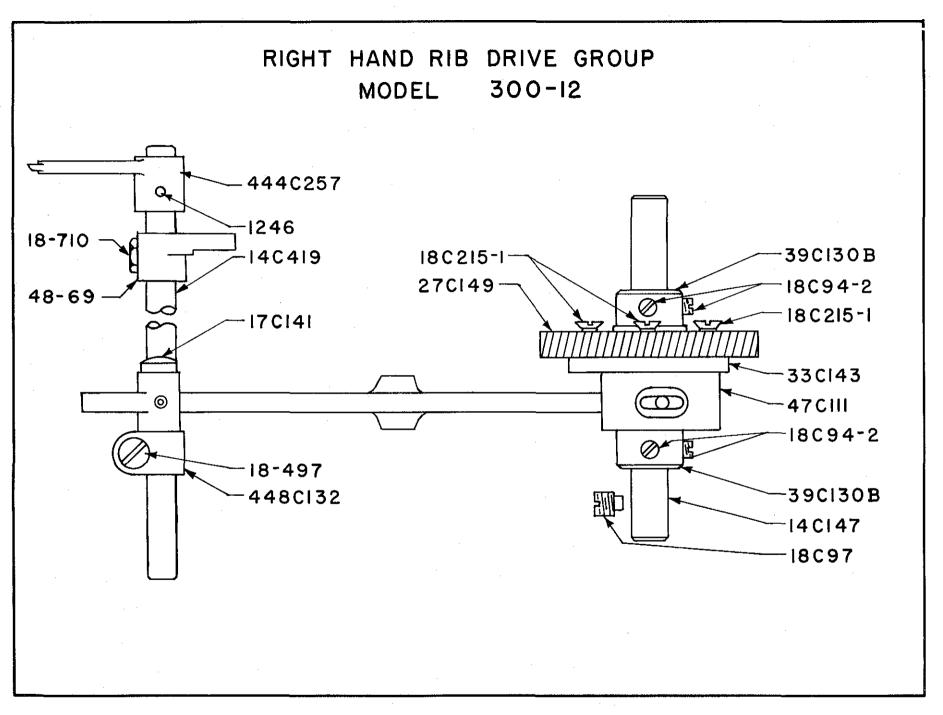
23 C 293 Feed Point - regular.

MODEL 300-15

23 C 314 Feed Point.

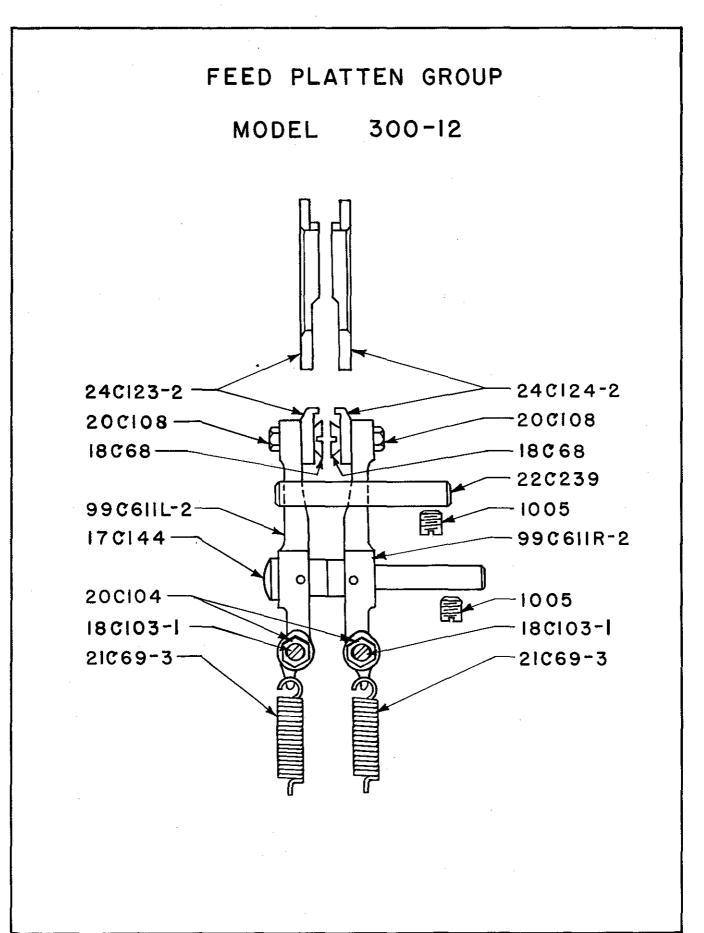
MODEL 300-20

23 C 43-2 Feed Point, fine.



#### RIGHT HAND DRIVE RIB GROUP

PLATE 27	300-12
14 C 147	Shaft for driven gear.
1 <b>4 C</b> 419	Shaft for right hand rib.
17 C 141	Stud for connecting rod, 47 C 111.
18 C 97	Set Screw for driven gear shaft.
18 C 94-2	Set Screw for collar, 30 C 130B, for driven gear.
18 C 215-1	Screws for eccentric to driven gear.
18 497	Screw for clamping crank, 448 C 132 for right hand rib shaft.
18-710	Screw for clamping crank, 48-69 for driving left hand rib.
27 C 149	Gear (driven) for ribs.
33 C 143	Eccentric for oscillating ribs.
39 C 130B	Collar for driven gear, 27 C 149.
47 C 111	Connecting Rod for oscillating ribs.
48-69	Crank on right hand rib for driving left hand rib.
1246	Pin for right hand rib.
444 C 257	Right Hand Rib Complete with rib shaft and pin 1246.
448 C 132	Crank for right hand rib shaft.



# FEED PLATTEN GROUP

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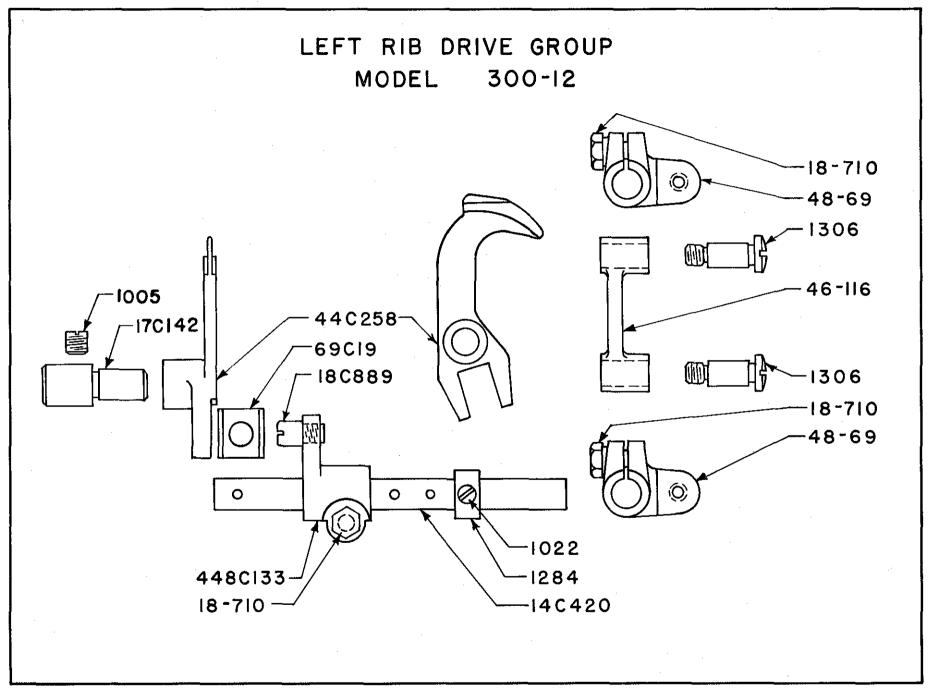
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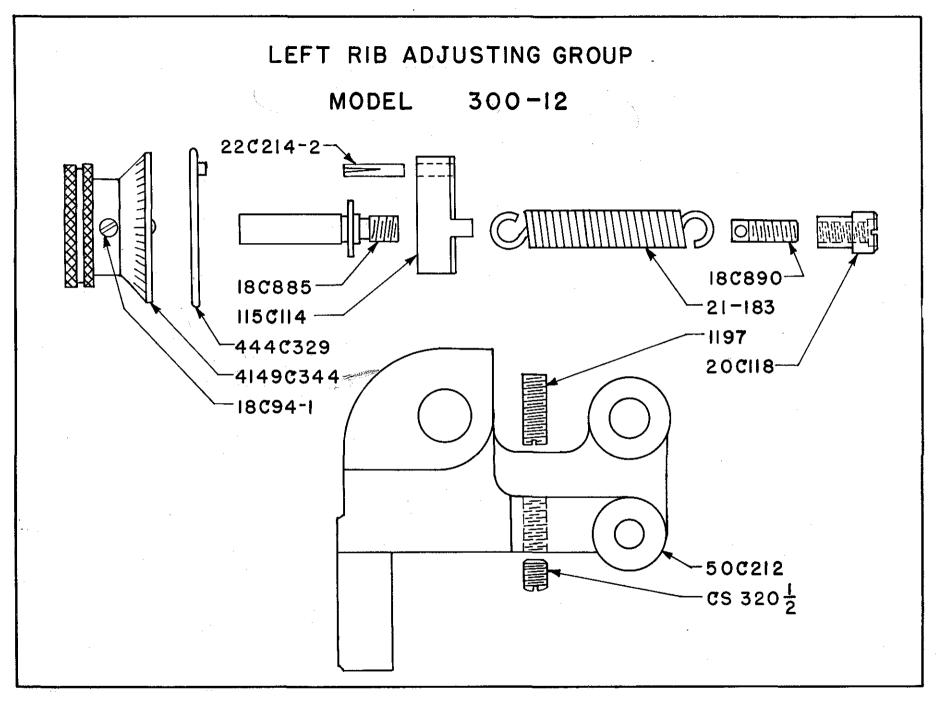
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PLATE 28	300-12
17 C 144	Stud for feed platten carriers.
18 C 68	Screw Bearing for feed plattens.
18 C 103-1	Screws for adjusting tension of springs, #21 C 69-3.
20 C 104	Nut for locking carrier adjusting screws, #18 C 103-1.
20 C 108	Nut for Screw bearings for feed plattens.
21 C 69-3	Springs for feed platten carriers.
22 C 239	Pin Stop in work apron for feed platten carriers.
24 C 123-2	Feed Platten, left hand.
24 C 124-2	Feed Platten, right hand.
1005	Set Screw for pin stop for carriers. Set Screw for feed platten carrier stud.
99 C 611L-2	Feed Platten Carrier, left hand.
99 C 611R-2	Feed Platten Carrier, right hand.



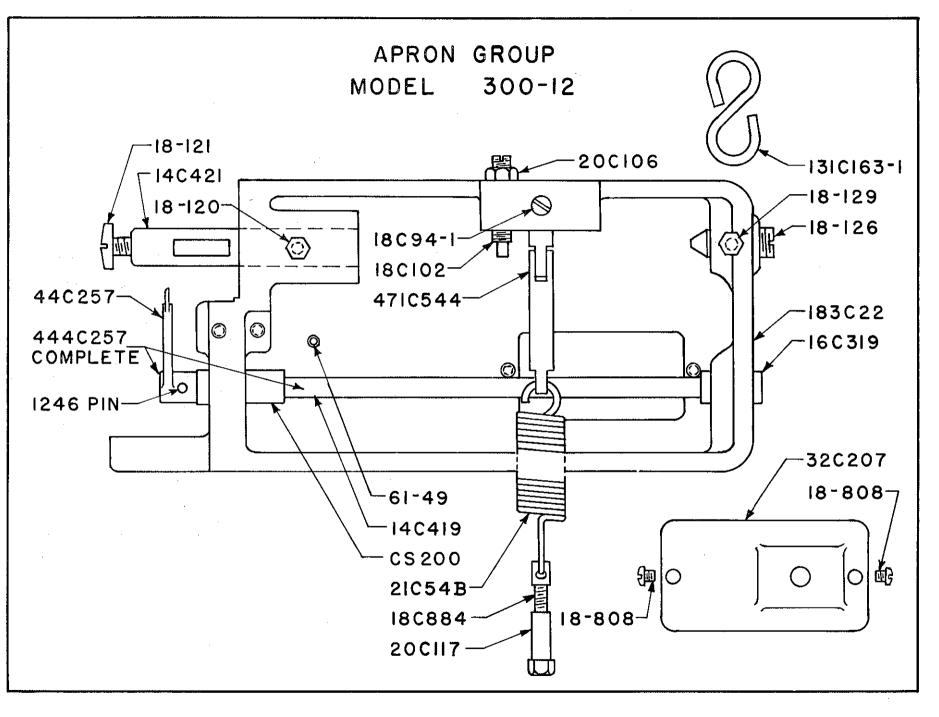
#### LEFT HAND RIB GROUP

PLATE 29	300-12
14 C 420	Jack Shaft for oscillating left hand rib.
17 C 142	Stud for left hand rib.
18-710	Screw for clamping crank, 448 C 133. Screw for clamping crank, 48-69, for oscillating left hand rib.
18 C 889	Screw for slide block for left hand rib.
44 C 258	Rib Left Hand.
46-116	Link for oscillating left hand rib.
48-69	Crank on Jack shaft for left hand rib. Crank on right hand rib shaft, see Plate No. 27.
69 C 19	Slide Block for left hand rib.
1005	Set Screw for left hand rib stud.
1022	Set Screw for collar, 1284 on Jack shaft.
1284	Collar on left hand rib Jack shaft.
1306	Screws, Bearing, for link 46-116 to oscillate left hand rib.
448-133	Crank with screw for oscillating left hand rib.



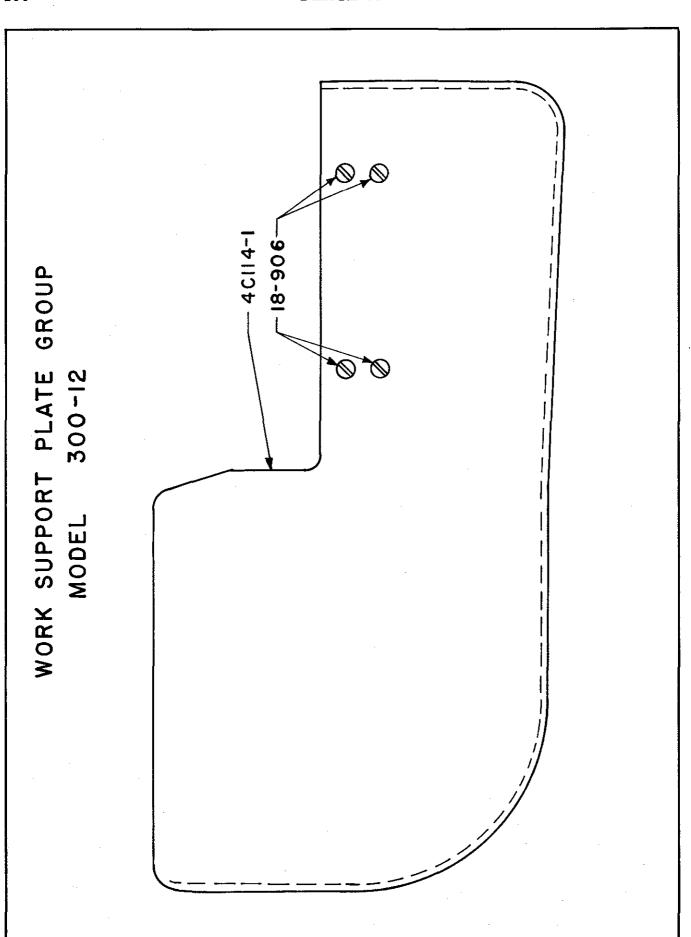
#### LEFT RIB ADJUSTING GROUP

PLATE 30	300-12
18 C 94-1	Set Screw for left hand rib dial knob.
18 C 885	Screw for adjusting left hand rib.
18 C 890	Screw for adjusting tension of spring for left hand rib bracket.
20 C 118	Nut for adjusting screw, 18 C 890 for left hand rib bracket.
21-183	Spring for left hand rib bracket.
22 C 214-2	Pin for guiding left hand rib adjustment block.
50 C 212	Left Hand Rib Bracket.
115 C 114	Left Hand Rib Adjustment Block.
<b>444</b> C 329	Left Hand Rib Adjustment Disc with pin.
4149 C 344	Left Hand Rib Dial Adjusting Knob.
CS 320-1/2	Screw for locking stop screw for left hand rib bracket.
1197	Stop Screw for left hand rib bracket.



#### WORK APRON GROUP

PLATE 31	3	300-12	
t		•	
1 <b>4 C</b> 419	Shaft for right hand rib.	20 C 106	Nut for adjustable stop screw for work apron.
14 C 421	Shaft in apron for left hand rib bracket.	20 C 117	Nut for work apron spring adjusting screw.
16 C 319	Bushing for rib shaft, right hand end.	21 C 54B	Work Apron Spring.
10.5		32 C 207	Cover for work apron.
18 C 94-1	Set Screw for work apron spring hinge joint.	44 C 257	Right Hand Rib.
18 C 102	Screw (adjustable stop) for work	61-49	Oil Tube for connecting link.
	apron.	131 C 163-1	"S" Hook for knee lifter.
18-120	Set Screw for left hand rib bracket shaft.	183 C 22	Work Apron.
18-121	Screw in end of left hand rib	CS 200	Bushing for rib shaft left hand end.
	bracket shaft.	1246	Pin for right hand rib.
18-126	Screw Pivot for work apron.	444 0 0 5 5	_
18-129	Set Screw for work apron pivot screw.	444 C 257	Right Hand Rib complete with rib shaft and pin, 1246.
18-808	Screws for work apron cover, 32 C 207.	471 C 544	Work Apron Spring Hinge Joint.
18 C 884	Screw for adjusting work apron spring.		



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#### WORK SUPPORT GROUP

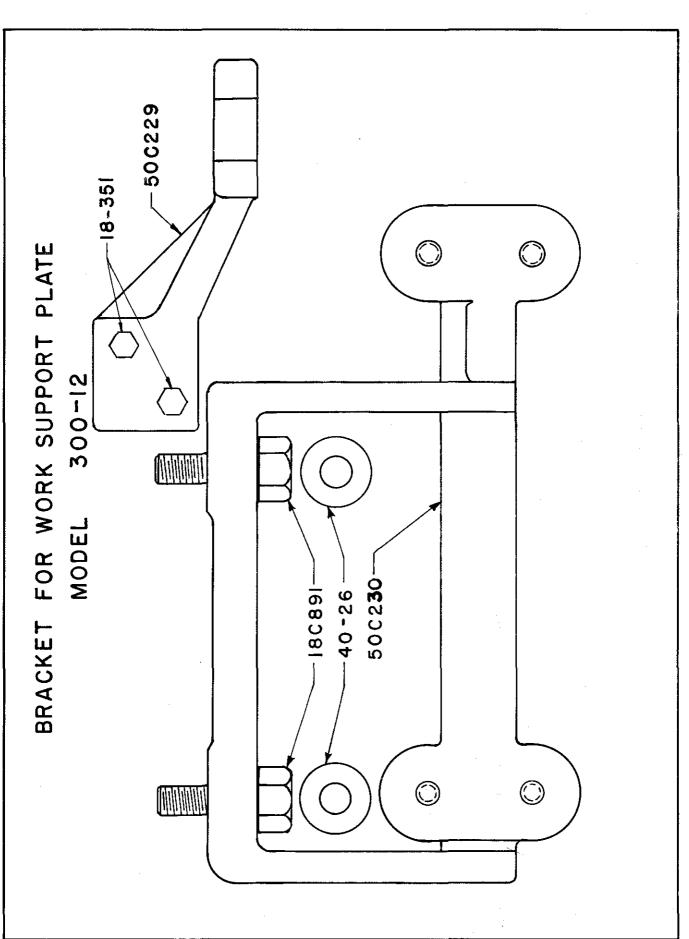
MODEL

PLATE 32

300-12

4 C 114-1 Work Support Plate.

18-906 Screws for attaching work support plate.



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## WORK SUPPORT BRACKET GROUP

PLATE 33	300-12
18-351	Screws for 50 C 229.
18 C 891	Screws for attaching work support bracket to machine.
40-26	Washers for work support bracket attaching screws, 18 C 891.
50 C 229	Support Bracket for left hand rib mechanism.
50 C 230	Bracket for work support plate.

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