

CHANGES IN LUBRICATION SPECIFICATIONS  
WHICH APPLY TO ALL TELETYPE APPARATUS

The following lubricants have been standardized for use on all types of Teletype apparatus. These lubricants supersede those referred to in preceding Teletype specifications. The lubricants can be ordered from Teletype as follows:

88970	1 Qt. of KS-7470 Oil
88971	1 Gal. of KS-7470 Oil
88973	1 Lb. of KS-7471 Grease
*88975	KS-8319 Grease Gun
97116	4-oz. Tube of KS-7471 Grease

The above grease is recommended instead of oil for lubricating motors equipped with ball bearing. The 88975 grease gun should be used for injecting grease into the bearings of Teletype ball bearing motors. The gun may be used also for applying grease to other parts of the apparatus and no other grease container need be carried. If this grease gun is not available, the oil listed in the foregoing should be substituted for lubricating ball bearing motors.

\* Instructions for Filling the Grease Gun

1. Unscrew the lubricant tube from the cap casting of the grease gun.
2. Insert fresh lubricant through the open end of the tube with the fingers. Apply gradually to eliminate air pockets.
3. Tamp the lubricant down solidly in the tube by pounding the closed end solidly against the palm of the hand. Continue to add lubricant until the tube is completely filled and the metal follower rests against the perforated tube cover.
4. Fill the cap casting with lubricant flush to the bottom side of the tube threads.
5. Screw the lubricant tube into the cap casting part way only. Then insert a pencil or rod through the perforated tube cover and exert pressure against the metal follower so as to expel any entrapped air past the tube threads. When lubricant begins to coze through the threads, tighten the lubricant tube securely in the cap casting.
6. Operate the handle back and forth for several strokes or until lubricant is pumped from the nozzle. The gun is then ready for use. If the lubricant does not flow from the nozzle in a solid stream, it is an indication that all air has not been expelled from the lubricant tube. Invert the gun and pound the cap casting end against the palm of the hand to jar the lubricant into the pump cylinder.

\* Instructions for Lubricating Motor Ball Bearings

The motor bearings are packed with grease before the motor leaves the factory and under ordinary operating conditions need no additional lubrication for

\* Indicates change

Printed in U.S.A.

approximately two months. At the regular lubricating intervals one or two strokes of the plunger of the gun should apply sufficient grease to each bearing. To lubricate, press the nozzle of the gun against the ball oiler and force the grease into the hole by pushing on the plunger of the gun. Care should be taken that the bearings are not overloaded. Overloading will result in the grease oozing out of the end castings and being forced into the motor or being thrown on other parts of the mechanism. After lubricating, the motor should be run for a few minutes and then any excess grease that has been forced out of the ends of the castings should be wiped off. Each time that the gun is used for lubricating a motor bearing, the plunger should first be depressed slightly to make sure that grease will be delivered.

ADJUSTMENT OF THE AUTOMATIC CARRIAGE RETURN  
AND LINE FEED MECHANISM ON MODEL 15 PRINTER

To be used in conjunction with Teletype Model 15 Printer Adjustment Bulletin 138.

For printers equipped with the automatic carriage return and line feed mechanism, add the following adjustments after the carriage return adjustments sequence, and directly following the paragraph CARRIAGE RETURN CLUTCH SPRING COMPRESSION.

OPERATING BAIL LINE FEED EXTENSION ADJUSTMENT

With the printing bail in its extreme rear position and the automatic carriage return trigger held in its operated position, rotate the main shaft until the automatic carriage return and line feed function lever just touches the number one vane. There should be some clearance, not more than .010" between the line feed push bar and the bottom of the function bail blade. To adjust, position the line feed extension by means of its enlarged mounting holes. Reposition the function bail blade if necessary.

To check the function bail blade adjustment, select the combination for the letter "O" when the printing bail is in its rearmost position, then rotate the main shaft until the printing bail is in its extreme forward position. There should be some clearance between the upper edge of the line feed extension projection of the bail and the lower edge of the line feed push bar.

AUTOMATIC CARRIAGE RETURN AND LINE FEED FUNCTION LEVER ECCENTRIC SCREW ADJUSTMENT

There should be an equal amount of clearance (within .010") between the bottom edge of the carriage return latch bar and the latch bar latch when, first the carriage return function lever is fully selected and then the automatic carriage return and line feed function lever is fully operated. To adjust, position the automatic carriage return and line feed function lever eccentric screw.

\*MOUNTING BRACKET ADJUSTMENT

NOTE

If the shift-blank-stop motor control mechanism is not used on the typing unit on which the automatic carriage return and line feed mechanism is installed, subsequent references to the motor stop function lever blocking lever may be ignored.

With the trigger guide positioned in approximately the middle of its adjustable range, adjust the mounting bracket (a) approximately parallel to the 74019 spring plate, and (b) so that there is some, but not more than .002" clearance between the front edge of the motor stop function lever and the blocking end of the blocking lever when the space combination is selected and the main shaft is rotated until the function lever rests against the vanes.



With the "Figures H" combination selected and the motor stop function lever blocked by its blocking lever, the motor stop function lever should not block the travel of the printing bail.

#### TRIGGER GUIDE ADJUSTMENT

With the letter "O" combination selected and the main shaft rotated until the printing bail is in its extreme forward position, there should be some clearance, not more than .010" between the carriage return latch bar and the lobe on the carriage return extension of the bail assembly. To adjust, position the trigger guide by means of its elongated mounting holes.

Check: With the main shaft in the stop position, there should be at least .005" clearance between the blocking edge of the trigger extension and the front edge of the automatic carriage return and line feed function lever, when the play is taken up to make this clearance a minimum.

#### TRIGGER ADJUSTABLE SCREW ADJUSTMENT

The automatic carriage return and line feed mechanism is designed to operate on a 72 to 76 character range. The following procedure assumes a 76-character line range. The procedure for the 72-character line range is substituted wherever 76 appears.

To check this adjustment, space the carriage one less than the desired number of characters on the line. There should be a clearance of .015" to .020" between the left-hand edge of the trigger extension and the right-hand edge of the blocking extension on the automatic carriage return and line feed function lever when the play in the function lever is taken up to the left. To adjust for this clearance, loosen the lock nut of the trigger adjustable screw and position the screw. Tighten the lock nut.

#### CARRIAGE RETURN AND AUTOMATIC CARRIAGE RETURN AND LINE FEED FUNCTION LEVER SPRING TENSIONS

With the carriage return combination fully selected and with the carriage return function lever resting against the vanes, unhook the carriage return function lever spring from the spring plate. Insert the hook end of a 12 lb. scale into the free end of the spring. It should require 9 to 11 lbs. to stretch the spring to its position length. Rehook the spring.

Measure the tension of the automatic carriage return and line feed function lever spring in a similar manner, with the function lever unblocked and resting against the vanes.

#### TRIGGER SPRING TENSION

Hook an 8 oz. scale over the trigger at the spring hole and pull horizontally in line with the spring. It should require a pull of 3-1/2 to 5 ozs. to just start the trigger moving.

#### BELL CRANK RETAINER YIELD LEVER SPRING TENSION

Hook a 32 oz. scale over the end of the yield lever and pull horizontally in line with the spring. It should require 24 to 32 ozs. to start the arm moving.

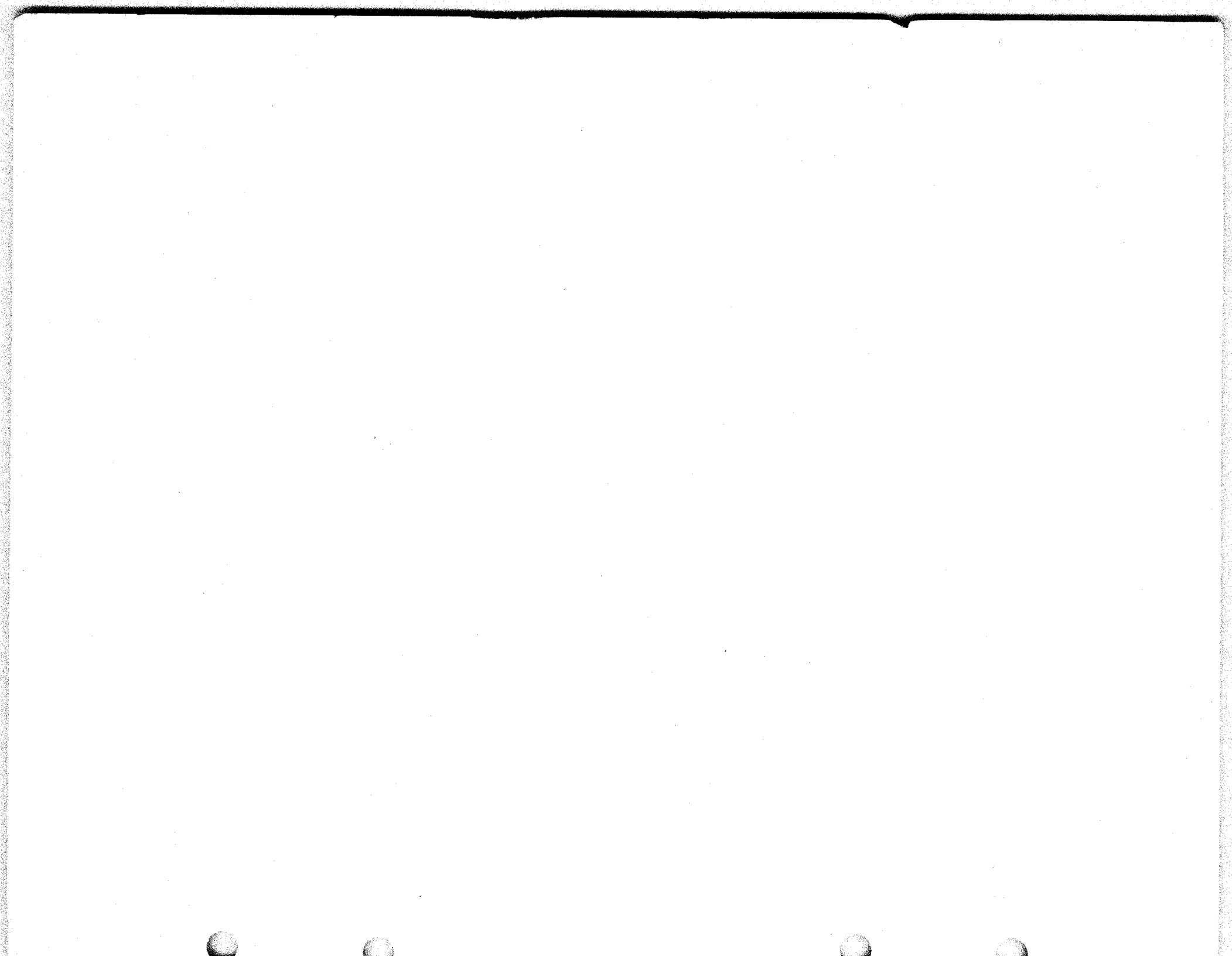


The adjusting procedure for the following adjustment must be changed as indicated below:

LINE FEED TURNBUCKLE ADJUSTMENT

Substitute the following for the first sentence: With the single-double line feed lever in the "single" line feed position, select the "line feed" combination and rotate the main shaft until the function bail is in its extreme rear position. Then manually move the line feed push bar to a position where it is just about to be disengaged from the function bail."

\* \* \*





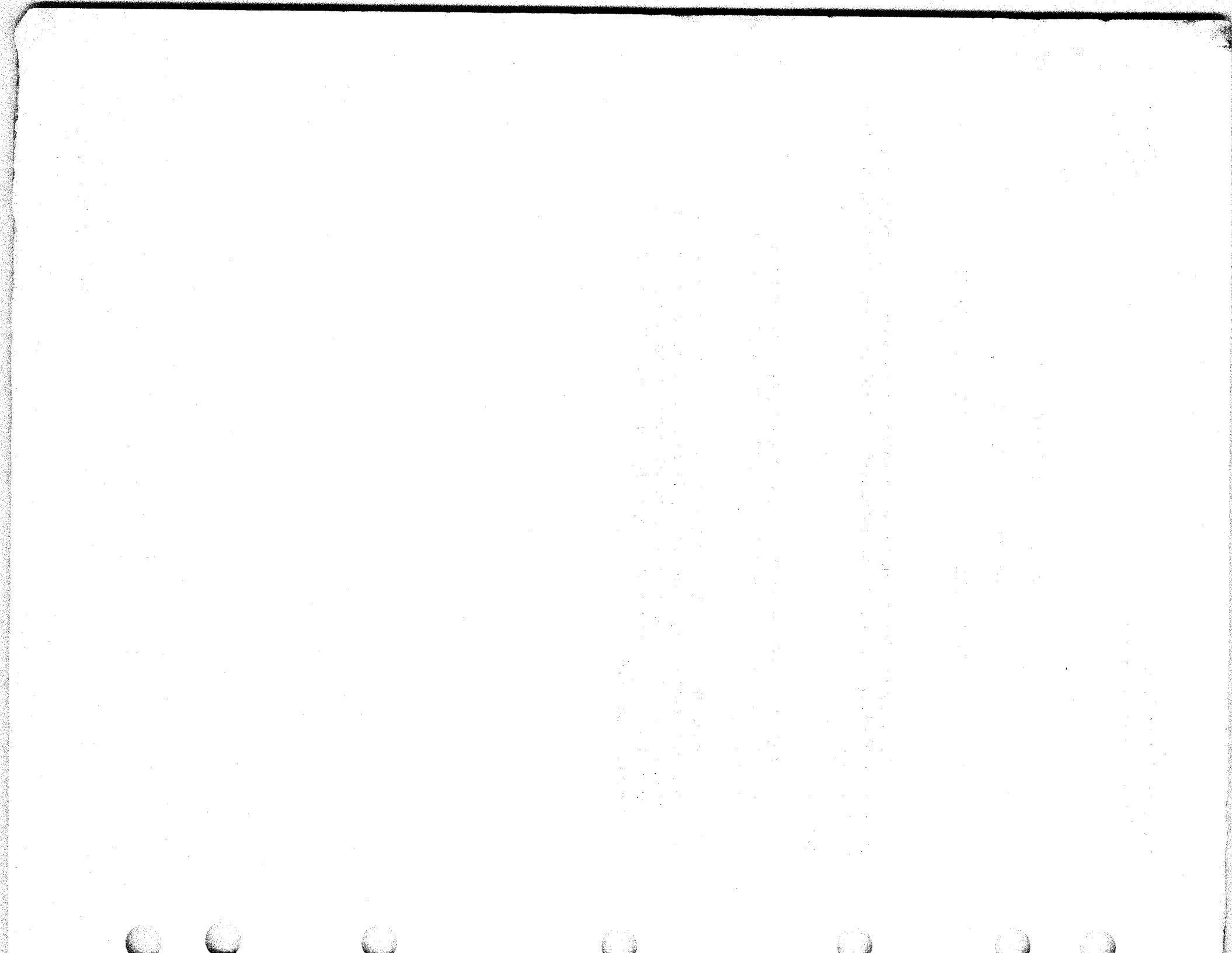
ADDITION AND CORRECTION  
TO BULLETIN 138, ISSUE 5,  
ADJUSTMENTS TYPE BAR PAGE PRINTER MODEL 15

This correction sheet is being reissued to correct an omission in Issue 1 of EE-508. Disregard the information found in Issue 1 and substitute the following:

PAGE 59

Omit the NOTE under "LEFT PRESSURE ROLLER LEVER SPRING TORSION" and add it under "RIGHT PRESSURE ROLLER LEVER SPRING TORSION."

Under "LEFT PRESSURE ROLLER LEVER SPRING TORSION" add the following statement: "To adjust, loosen the mounting screw which mounts the left pressure roller spring bracket to the platen bracket casting, and rotate the spring bracket. Tighten the mounting screw."



CHANGES AND ADDITIONS  
TO PARTS BULLETINS  
TYPE BAR PAGE PRINTER  
(MODEL 15)

1037, ISSUE 4, PAGE 12  
1094, ISSUE 2, PAGE 10  
1110, ISSUE 2, PAGE 10  
1114, ISSUE 1, PAGE 13

THE 74281 TYPE BAR BACKSTOP ASSEMBLY HAS BEEN REPLACED BY A 114188 TYPE BAR BACKSTOP ASSEMBLY ON 100 W.P.M. MACHINES AND DIFFERS AS SHOWN IN THE SKETCH BELOW:

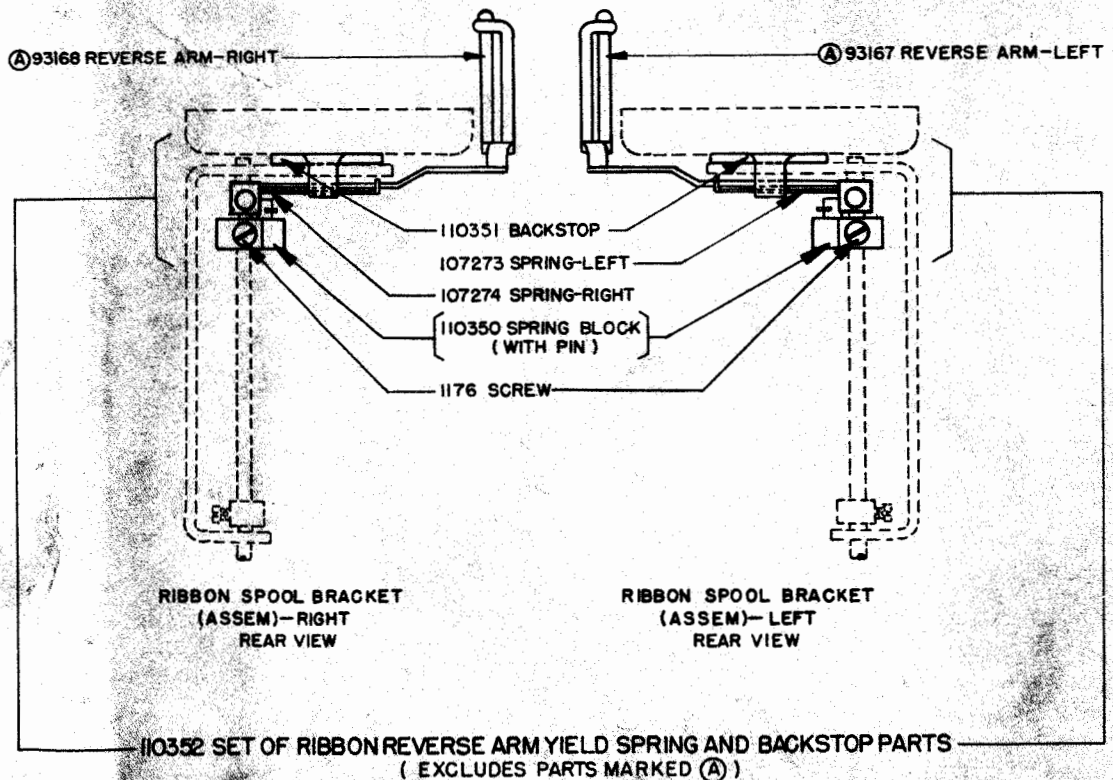
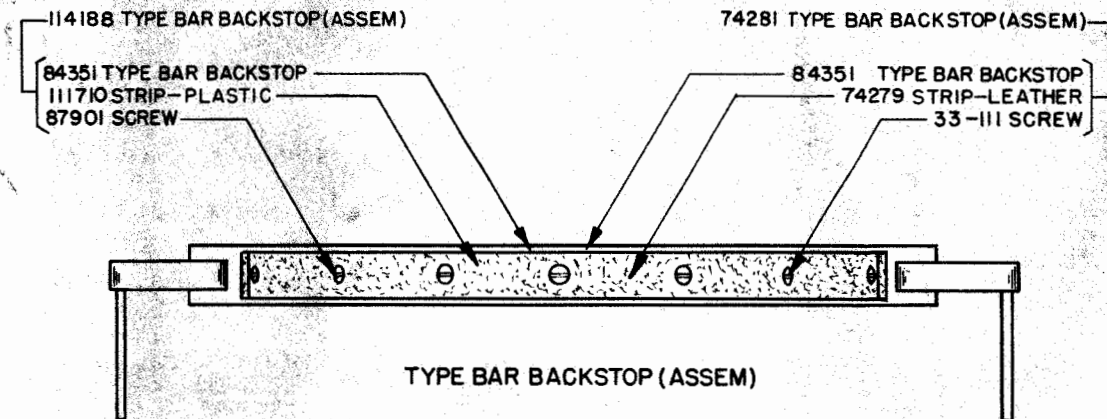
SCREWS ARE NOT INTERCHANGEABLE BETWEEN THE TWO STYLE PARTS.

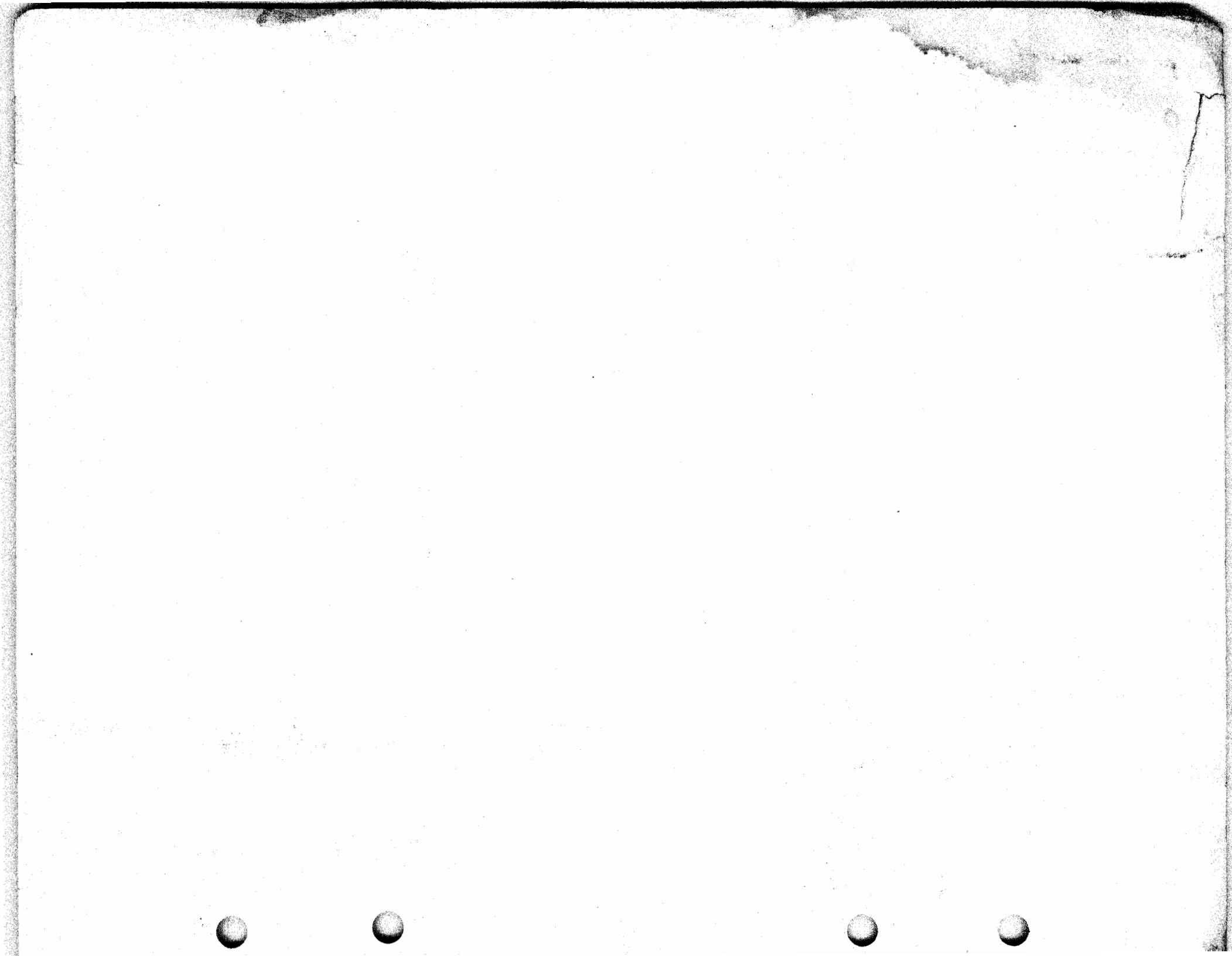
ALTHOUGH BOTH STYLE PARTS CAN BE USED INTERCHANGEABLY (WITH THE PROPER SCREWS), IT HAS BEEN FOUND THAT THE BALANCE OF LIFE IS IN FAVOR OF LEATHER FOR THE SLOWER SPEEDS AND IN FAVOR OF THE PLASTIC AT THE HIGHER SPEED.

CARBON TETRACHLORIDE, COMPOUNDS OF THIS SOLVENT, OR WATER SHOULD NOT BE USED IN CLEANING UNITS HAVING THE PLASTIC BACKSTOPS AS THEY CAUSE DETERIORATION OF THE PLASTIC MATERIAL.

FOR UNITS OPERATING AT 100 W.P.M.

FOR UNITS OPERATING AT 60 AND 75 W.P.M.

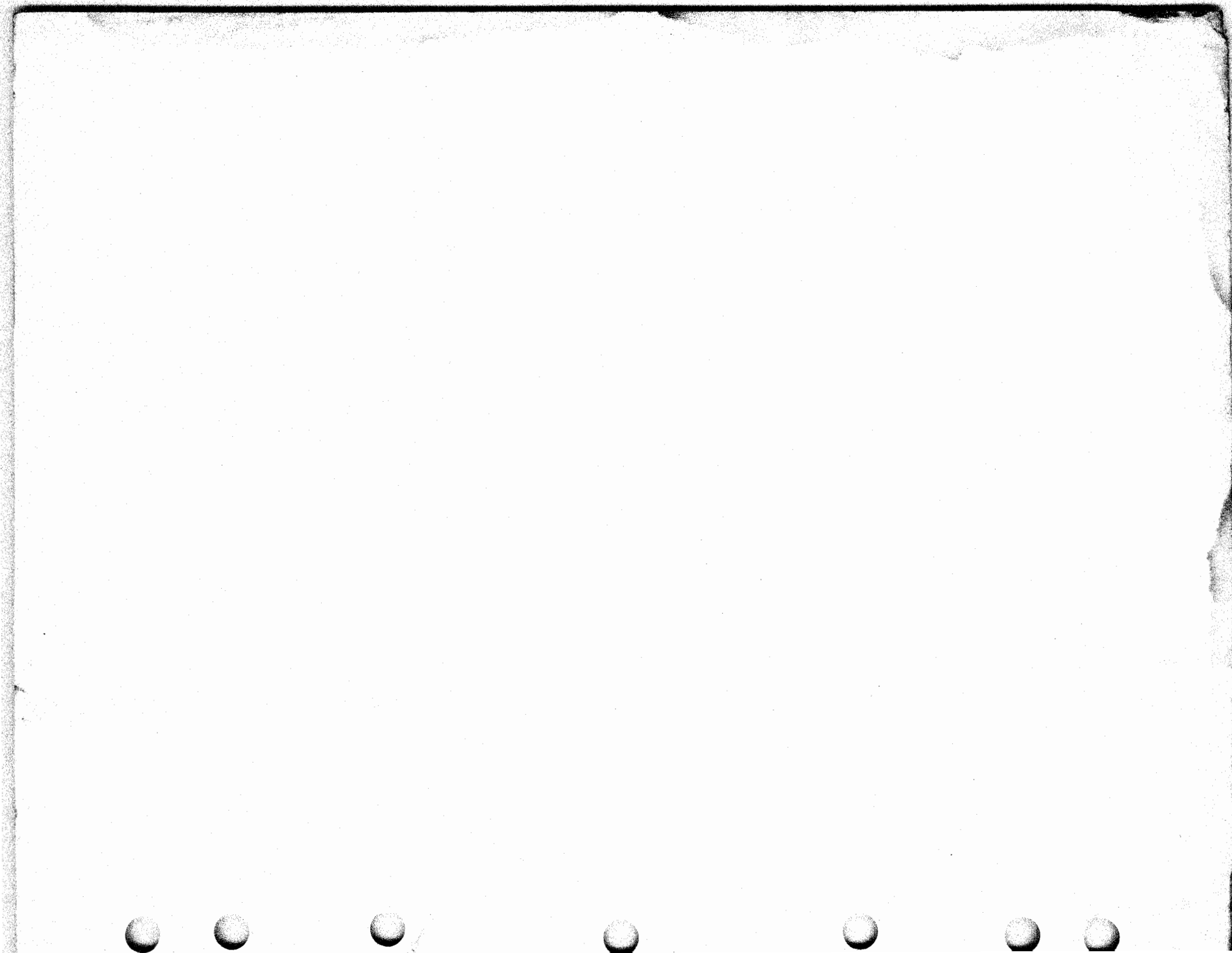




CHANGES AND ADDITIONS  
TO PARTS BULLETINS

1019 Issue 1	1064 Issue 2	1109 Issue 1
1028 Issue 2	1072 Issue 2	1110 Issue 2
1030 Issue 2	1080 Issue 1	1114 Issue 1
1031 Issue 3	1082 Issue 2	1116 Issue 1
1035 Issue 1	1088 Issue 2	1117 Issue 2
1036 Issue 3	1094 Issue 2	1119 Issue 1
1037 Issue 4	1095 Issue 1	1120 Issue 1
1041 Issue 4	1100 Issue 2	1122 Issue 2
1048 Issue 2	1101 Issue 1	1125 Issue 1
1051 Issue 1	1104 Issue 1	1127 Issue 1
1063 Issue 2	1105 Issue 1	

Reference is made in the above parts bulletins to the 77911 and 78873 brush holder caps. These two parts originally differed in that one (77911) had a tapped hole for a #6-32 screw to secure the filter lead and the other (70873) did not. The 70873 has recently been changed to include the tapped hole, thus making the two parts identical. The 77911 brush holder cap has been cancelled and on orders for such part the 70873 brush holder cap will be furnished.



CHANGES IN BULLETIN 138 (ISSUE 5)  
ADJUSTMENTS - TYPE BAR PAGE PRINTER  
MODEL 15

PAGE 9

TYPE BAR BACKSTOP ADJUSTMENT

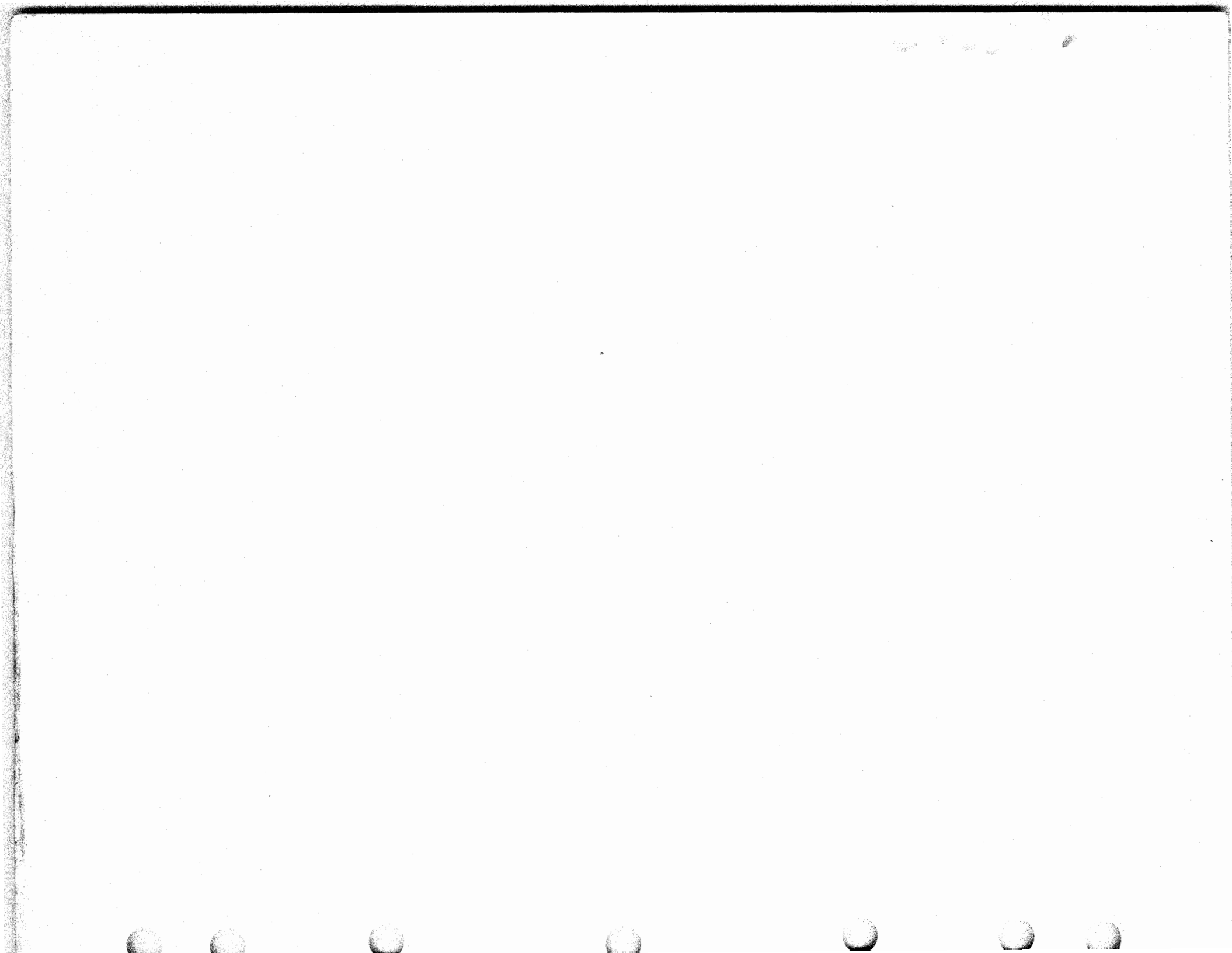
Add "See Note (A)" to the title and change the wording of the adjustment as follows:

With the pull bar bail in its extreme rear position, there should be not less than .010" clearance between the type bar backstop and the pull bars when the type bars are held in the type bar guide. Make this check on the two end pull bars and the middle pull bar.

To adjust, set the up and down position of the type bar backstop by means of its elongated mounting holes to meet this requirement. (See Figure 7 for location of parts.)

NOTE: When meeting the clearance requirement between the backstop and the pull bars, the backstop should be positioned low enough to eliminate any interference between adjacent type bar assemblies at the pallet ends which would be likely to cause "light" printing.

It is preferable that the end type bars rest against the backstop buffer strip along its entire width. It is permissible, however, to allow a clearance of not more than .010" between the front edge of the buffer strip and the type bars.



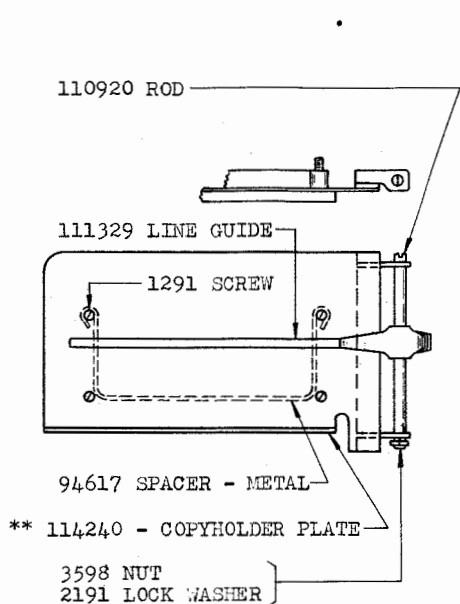


1025	ISSUE 3	1037	ISSUE 4	1082	ISSUE 2	1110	ISSUE 2
1028	ISSUE 2	1048	ISSUE 2	1088	ISSUE 2	1114	ISSUE 1
1030	ISSUE 2	1063	ISSUE 2	1090	ISSUE 2	1117	ISSUE 2
1031	ISSUE 3	1067	ISSUE 2	1094	ISSUE 2		

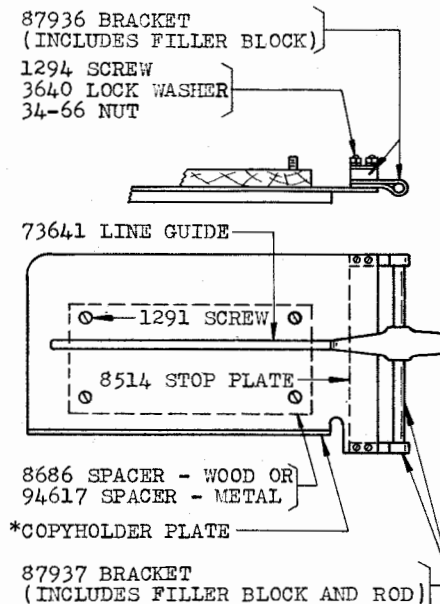
THE 6" COPYHOLDER ASSEMBLIES SHOWN IN THE ABOVE BULLETINS HAVE BEEN REDESIGNED AND ASSIGNED NEW ASSEMBLY NUMBERS. THE SKETCHES BELOW ILLUSTRATE THE DIFFERENCE BETWEEN THE NEW AND OLD ASSEMBLIES, WHICH ARE INTERCHANGEABLE, AND THE CHART LISTS THE NEW AND OLD ASSEMBLY NUMBERS.

THE 8686 SPACER (WOOD) IS NO LONGER AVAILABLE, 94617 SPACER (METAL) WILL BE FURNISHED INSTEAD.

THE 73641 LINE GUIDE HAS BEEN REPLACED BY 111329 LINE GUIDE, WHICH HAS THE CLIP HANDLE BENT FORWARD TO FACILITATE OPERATING THE GUIDE FROM THE FRONT RATHER THAN FROM THE SIDE.



NEW STYLE 6" COPYHOLDER (ASSEM.)



OLD STYLE 6" COPYHOLDER (ASSEM.)

NEW ASSEMBLY		FINISH		OLD ASSEMBLY	
NUMBER	SPACER	COLOR	SUFFIX	NUMBER	SPACER
115700AA	METAL	BLACK WRINKLE	AA	91752	WOOD
115700AB	METAL	GRAY GREEN WRINKLE	AB	—	METAL
115700AC	METAL	LIGHT BROWN WRINKLE	AC	101868	WOOD
115700AD	METAL	DARK BROWN WRINKLE	AD	113419	METAL
115700BA	METAL	BLACK HIGH GLOSS	BA	74833	WOOD
115700BA	METAL	BLACK HIGH GLOSS	BA	101276	METAL
115700BC	METAL	OLIVE GREEN	BC	80888	WOOD
115700CA	METAL	WALNUT	CA	74832	WOOD
115700CA	METAL	WALNUT	CA	101275	METAL
115700CB	METAL	MAHOGANY	CB	81881	WOOD
115700CB	METAL	MAHOGANY	CB	***84922	WOOD
115700CB	METAL	MAHOGANY	CB	101277	METAL

\* THE OLD STYLE COPYHOLDER PLATE IS NO LONGER AVAILABLE. WHEN IT BECOMES NECESSARY TO REPLACE AN OLD STYLE COPYHOLDER PLATE A NEW STYLE COPYHOLDER PLATE ALONG WITH ONE 110920 ROD, ONE 2191 LOCK WASHER AND ONE 3598 NUT SHOULD BE ORDERED INSTEAD.

\*\* ON ORDERS FOR NEW STYLE COPYHOLDER PLATES, CUSTOMER MUST INDICATE THE COLOR OF FINISH DESIRED BY ADDING A TWO-LETTER SUFFIX TO THE COPYHOLDER PLATE PART NUMBER. FOR EXAMPLE: ORDER "114240CA COPYHOLDER PLATE" WHEN A WALNUT FINISH COPYHOLDER PLATE IS DESIRED. (SEE "FINISH" COLUMN IN CHART ABOVE FOR FINISHES AND THEIR RESPECTIVE SUFFIXES.

\*\*\* THE 84922 COPYHOLDER ASSEMBLY (USED ON WHEATSTONE PERFORATOR COVER - WOOD) WAS LIKE 81881 COPYHOLDER ASSEMBLY, EXCEPT HAVING LONGER MOUNTING SCREWS. IN THE FUTURE, A STANDARD COPYHOLDER ASSEMBLY WILL BE FURNISHED IN PLACE OF 84922, AND THE LONGER MOUNTING SCREWS WILL BE INCLUDED WITH THE WHEATSTONE PERFORATOR COVER.



CHANGES AND ADDITIONS  
BULLETIN 138 (ISSUE 5)  
ADJUSTMENTS - TYPE BAR PAGE PRINTER  
MODEL 15

The following adjustments have been revised to merely include reference to Model 15 printers arranged to print six characters to the inch and forty-four characters per line:

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LEFT MARGIN ADJUSTING SCREW ADJUSTMENT (Figure 60)\*

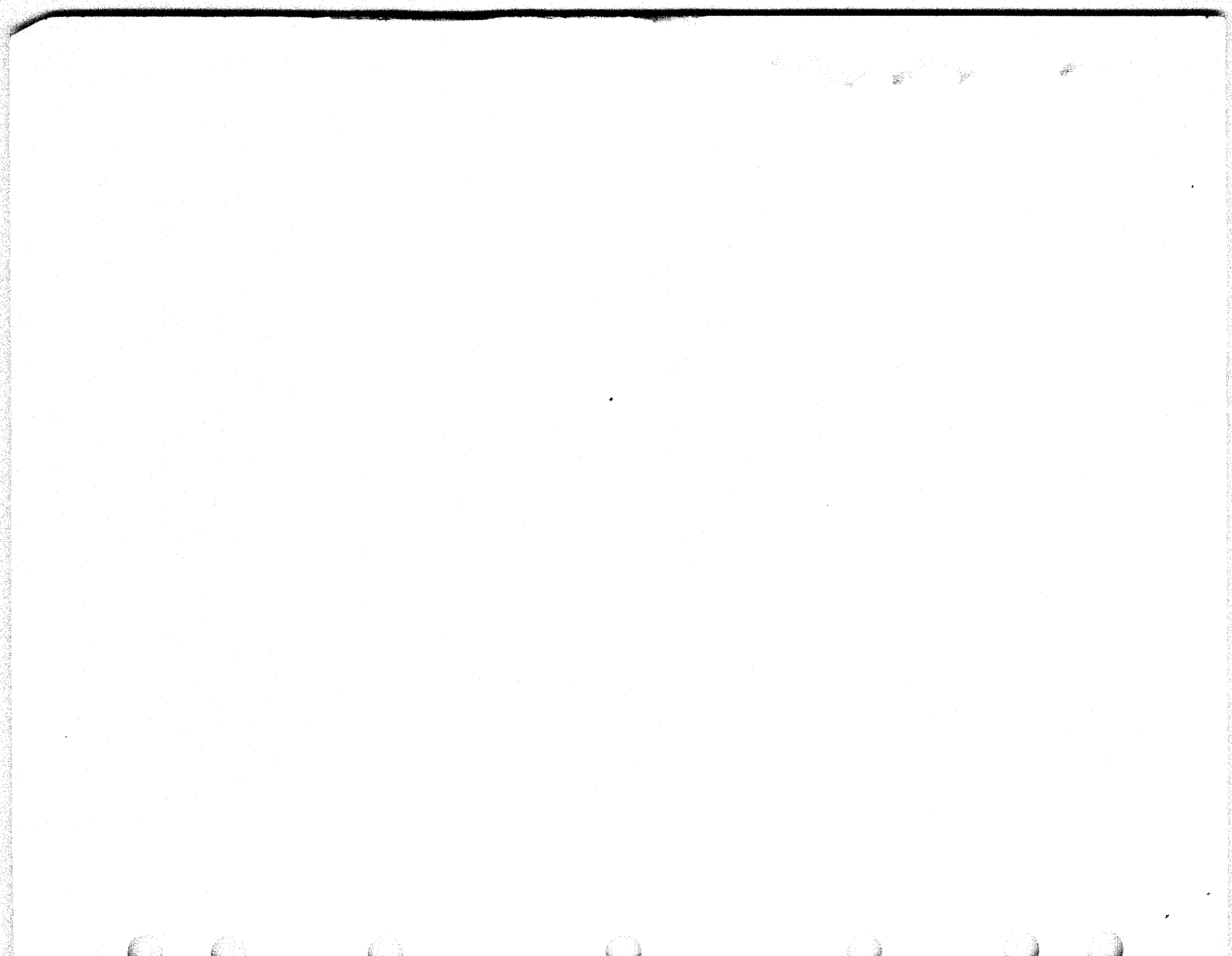
Change this adjustment to read as follows:

The left edge of the letter M should print  $7/8''$  (plus or minus  $1/16''$ ) from the left edge of the platen when used as the first character in lines of 72 character length. When lines of 76 character length are required, or when adjusting typing units that print six characters to the inch instead of the standard ten, the left edge of the letter M should print  $11/16''$  (plus or minus  $1/16''$ ) from the left edge of the platen. To adjust, turn the left margin adjusting screw inward and lock the carriage in place by operating the dashpot lever so that the carriage will be in a position to print the letter M the required distance from the left edge of the platen as specified in the foregoing. Make sure that the carriage clutch members are fully engaged. Then reposition the adjusting screw so that, when the lock nut is slightly tightened so as to take up the end play in the threads and a horizontal pull of 8 lbs. is exerted on the dashpot lever applied with a 12 lb. scale at right angles to the curved surface  $1/32''$  behind the margin and adjusting screw, there is a slight clearance (not more than  $.002''$ ) between the end of the screw and the dashpot lever. Turn the left margin adjusting screw  $1/6$ th turn in a direction to eliminate this clearance and tighten the lock nut.

RIGHT MARGIN ADJUSTING SCREW ADJUSTMENT (Figure 61)

Change this adjustment to read as follows:

The printer should normally print seventy-two characters on a line (forty-four characters for typing units that print six characters to the inch instead of the standard ten) before spacing is blocked by the spacing stop pawl. To adjust, return the carriage to the left end of the line and back off the right margin adjusting screw. Then, with the right margin adjusting screw arm in engagement with its detent, space the carriage one less space than the number of characters desired



per line; that is, seventy-one spaces for normal lines of seventy-two characters. (The carriage should then be in position to print the last character for desired length of line.) Adjust the stop screw so that the spacing stop lever is moved within .015" to .030" from a projection on the spacing stop sleeve.

NOTE: When printing seventy-two, seventy-six or forty-four characters per line, pile-ups should occur on the seventy-third, seventy-seventh and forty-fifth characters respectively.

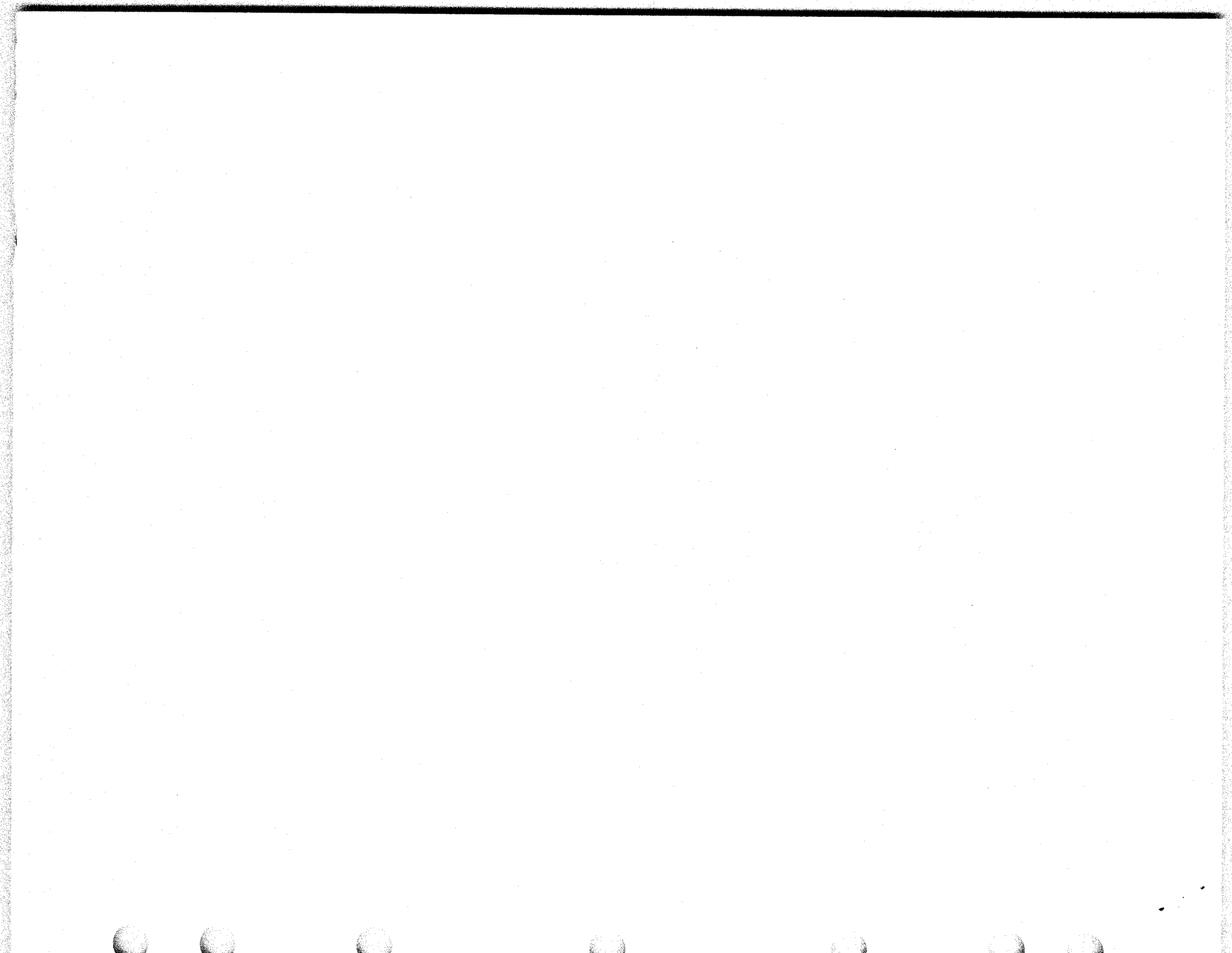
Page 46

#### MARGIN SIGNAL BELL ADJUSTMENT

Change this adjustment to read as follows:

The bell should ring on the sixty-sixth printed character for lines of seventy-two character length, on the seventieth for lines of seventy-six character length, and on the thirty-ninth for lines of forty-four character length. To adjust, return the carriage to the left end of the line. Then space the carriage sixty-six, seventy or thirty-nine spaces to the right, depending on the length of line being printed. Loosen the margin bell cam thumb screw and adjust the cam so that its right side is in contact with the margin bell pawl and tighten the thumb screw. (See Figure 58 for location of parts.)

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CHANGES AND ADDITIONS  
BULLETIN 138, ISSUE 5  
ADJUSTMENTS - TYPE BAR PAGE PRINTER  
MODEL 15

The following requirements apply to Model 15 printer bases equipped with the 114239 contact assembly which is used in conjunction with the tabulating mechanism for interrupting transmission by opening the control magnet circuit of the transmitter distributor during the tabulating interval. The 114239 contact assembly replaces the 82917 standard send-receive-break mechanism on the base and includes a single contact and contact lever. These requirements also apply where the standard send-receive-break mechanism has been modified to include the special features of the 114239 assembly.

PAGE 62

TABULATOR BAR ADJUSTMENT (Figure 96)

Change this adjustment to read as follows:

The tabulator bar should be parallel to the front carriage rail, within .010", as gaged by measuring the clearance between the tip of the tabulator pawl on the carriage and the tabulator stops located at each end of the tabulator bar. There should also be .030" to .060" clearance between the left-hand edge of the tabulator bar extension and the contact lever bracket on the base. The tabulator bar should have some end play not over .004".

The parallel position of the tabulator bar with relation to the front carriage rail may be adjusted by means of the right-hand pivot bushing. The end play and the clearance between the tabulator bar extension and the contact lever bracket may be adjusted by means of the pivot screws.

Add the following adjustments immediately after the "Tabulator Bar Adjustment":

CONTACT LEVER SCREW ADJUSTMENT

With the tabulator latch bar (Figure 98) in its upper position, and the handle of the send-receive-break mechanism (if present) in the SEND position, there should be some clearance not more than .008" between the adjusting screw on the contact lever and the tabulator bar extension when the arm of the contact lever is touching the bakelite insulator of the longer contact spring. Adjust by positioning the contact lever screw. Recheck after tightening the lock nut.

Check the adjustment of the send-receive-break mechanism reset lever upper adjusting screw.

PAGE 63

Add the following immediately after the "Tabulator Stops Adjustment":

TRANSMITTER DISTRIBUTOR CONTROL CONTACT REQUIREMENTS

- (1) The contact springs and points should be in line. Adjust, if necessary, by positioning the springs on their mounting screws.
- (2) There should be some clearance not more than .008" between the fiber insulator on the lower end of the longer contact spring and the tabulator contact lever extension.

When checking this clearance the tabulator contact lever extension should be held firmly against the mounting bracket. Adjust by bending the shorter contact spring.

- (3) The longer contact spring should exert pressure against the shorter contact spring. Hook an 8 oz. scale around the longer contact spring just below the contact point and pull horizontally toward the left. It should require 1 to 2 ozs. to just break contact.

Adjust by bending the longer contact spring.

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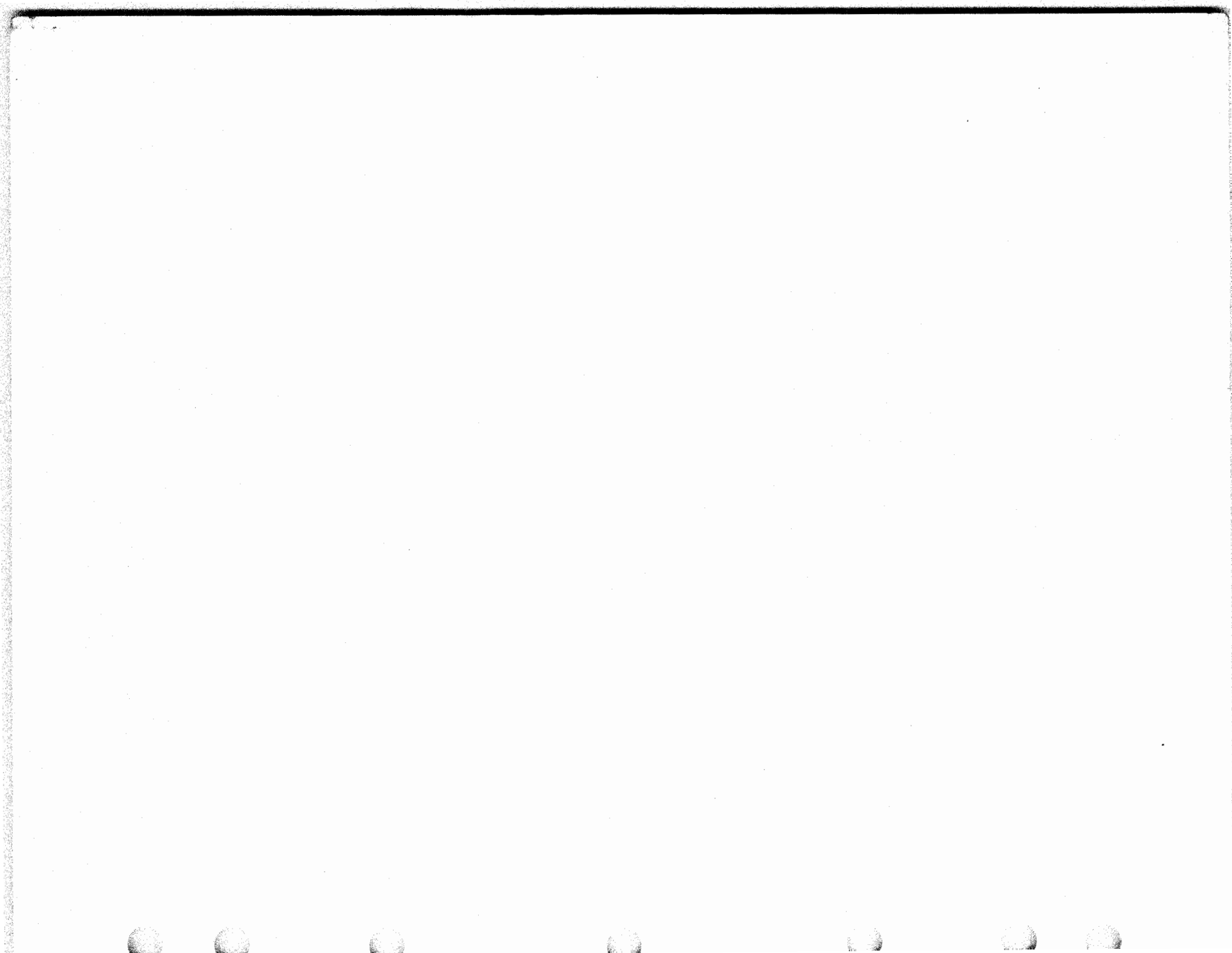
Teletype Corporation  
Chicago, Illinois, U.S.A.

EE-559  
Issue 1  
October, 1946

ADDITION TO BULLETIN 138 (ISSUE 5)  
ADJUSTMENTS - TYPEBAR PAGE PRINTER  
MODEL 15

Add the following note immediately after the text of the "Function Lever Bail Adjustment - Two Piece (Figures 23 and 24)" on page 13 and after Paragraph (3) of "Function Lever Bail Adjustment - One Piece (Figure 24)" on page 14:

NOTE: A minimum clearance of .025" is permissible between the rear edge of the No. 1 vane and the front edge of the transfer contact function lever when the typing unit is equipped with the station selector mechanism.



CHANGES IN BULLETINS

- 127, Issue 3, Model 14 Type Bar Tape Printer, Page 13
- 138, Issue 5, Model 15 Type Bar Page Printer, Page 26
- 159, Issue 2, Model 26 Type Wheel Page Printer, Page 5
- 165, Issue 2, Model 14 Typing Reperforator, Page 14
- 178, Issue 1, Reperforator Transmitter Distributor, Page 9
- 182, Issue 1, Multiplex Start-Stop Extensor Set, Page 16
- 193, Issue 1, Model 14 Reperforator Transmitter Distributor, Page 7
- 197, Issue 1, Multiple Reperforator Set, Page 15
- 198, Issue 1, Model 27 Type Wheel Page Printer, Page 18

SELECTOR ARM SPRING TENSION

Change this adjustment to read as follows:

Unhook the selector arm stop detent spring. With the armature extension on a high part of its cam, and the locking lever held away from the locking wedge, hook an 8 oz. scale over the end of the locking wedge and pull parallel to the selector arm spring. It should require 1-1/4 to 1-3/4 ozs. to start the selector arm moving. Reform the outer loop of the selector arm spring, if necessary, to meet this requirement. Replace the detent spring.

CAUTION: Care should be taken not to nick, crimp, or otherwise deform the spring or spring wire when reforming the loops.



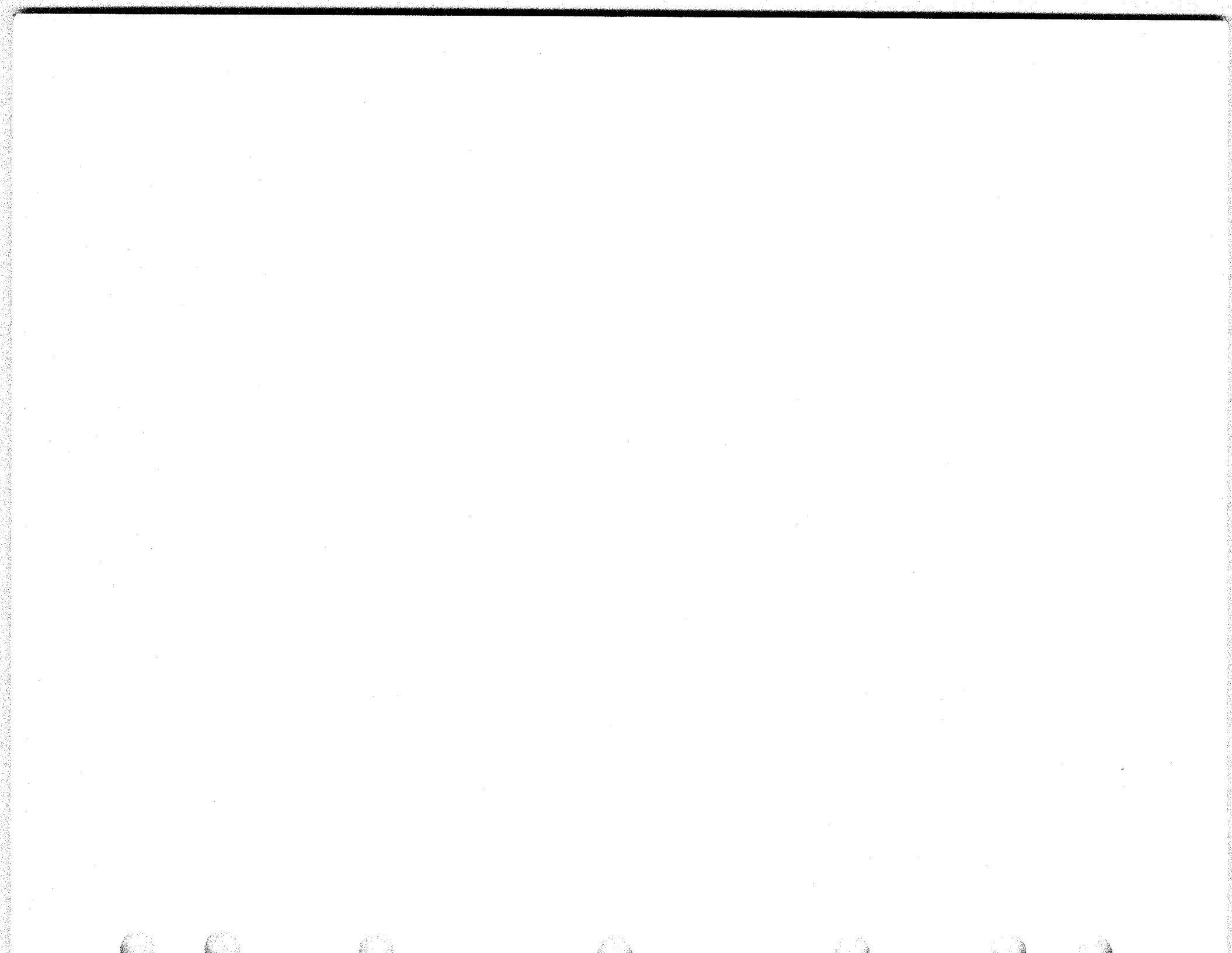
CHANGES AND ADDITIONS  
TO ADJUSTING BULLETINS

138, Issue 5, Model 15 Type Bar Page Printer - Page 18  
147, Issue 2, Single Magnet Reperforator - Page 4  
165, Issue 2, Model 14 Typing Reperforator - Page 8  
171, Issue 2, Model 14 Typing Reperforator - Page 7

ARMATURE STOPS ADJUSTMENT

Change the clearance requirement of this adjustment to specify  
.035" to .037" instead of .040" to .042" and add the following note:

NOTE: The upper limit may be increased up to .042" only if  
necessary in order to permit meeting the requirement  
for clearances given under the heading "Armature Trip-  
Off Eccentric Screw Adjustment."



CHANGES IN BULLETINS

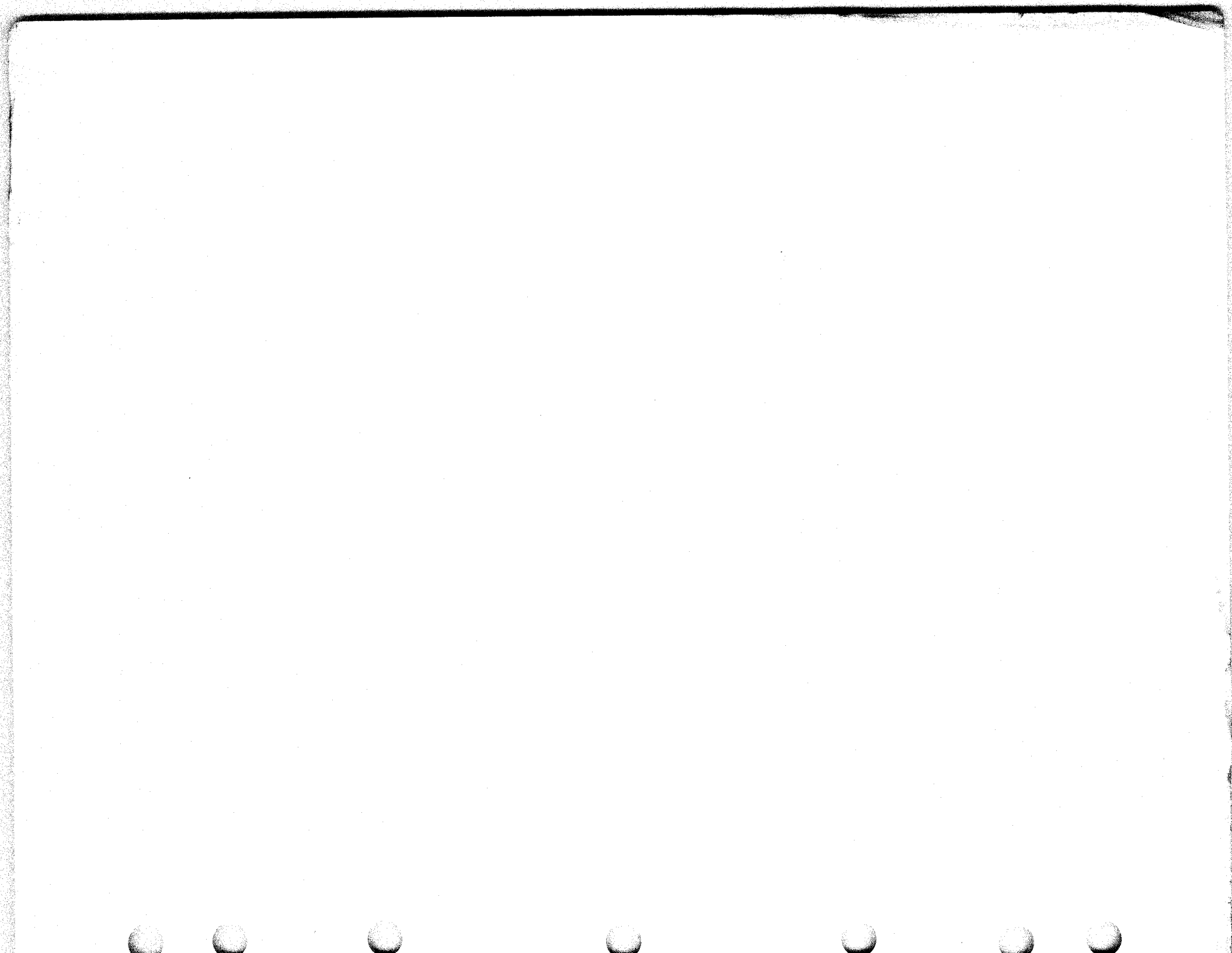
138, Issue 5, Model 15 Typebar Page Printer, Page 22  
159, Issue 2, Model 26 Type Wheel Page Printer, Page 1  
182, Issue 1, Multiplex Start-Stop Extensor Set, Page 12

SELECTOR MAGNET ADJUSTMENT

Change the note to read as follows:

"NOTE: When the cores are in proper adjustment, it should require at least 3-1/2 lbs. pull, with a 64 oz. scale applied at right angle to the armature edge on the same level as the armature extension, to separate the armature from the cores when a current of .020 amperes is flowing through the magnet coils. (Coils in series shunted by a 5000 ohm resistor.)"

\* \* \*





CHANGE IN BULLETINS 138, ISSUE 5, AND  
160, ISSUE 1, ADJUSTMENTS  
TYPE BAR PAGE PRINTER  
MODELS 15 AND 20

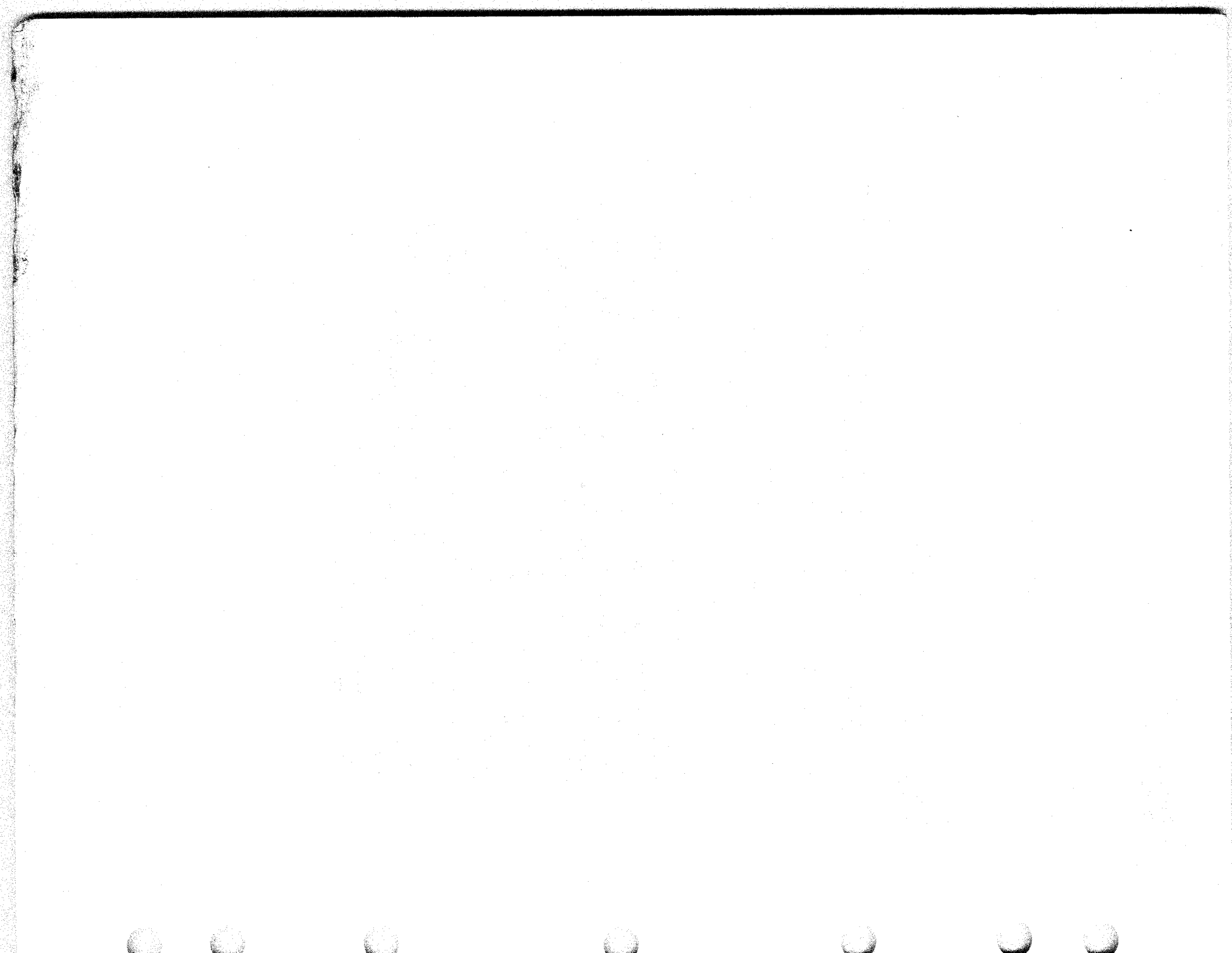
Bulletin 138, Issue 5, Page 11  
Bulletin 160, Issue 1, Page 8

Add the following immediately following "CARRIAGE SUPPORT  
AND PULL BAR BAIL PLUNGER ROLLERS ADJUSTMENT:"

INSTRUCTIONS FOR REPLACING A TYPE BAR

**CAUTION:** The type bar guide adapter plate, located between the type bar guide and the type bar segment, is positioned at the factory for type alignment and should not be disturbed as it may seriously affect the alignment.

Remove the type bar carriage, the ribbon, the two screws and lock washers mounting the type bar guide to the adapter plate, and the ribbon carrier after disengaging it from hook on ribbon oscillator lever, and then lift the type bar guide off its dowels; raise the type bar in question until it passes the ribbon oscillator lever, then raise the selected pull bar until it is disengaged from the type bar and remove the type bar from its slot in the type bar segment. Insert the new type bar in the slot just vacated engaging the teeth on the pull bar so the top of the pull bar is even with that of the other pull bars when the type bar is resting against its back-stop. (New type bars are usually oversize and the section that fits in the segment will probably have to be stoned down to permit it to operate freely. Do not remove more metal than is necessary for freedom of movement.) Reassemble the type bar guide on the adapter plate using the two screws and lock washers previously removed, the ribbon carrier on the type bar guide engaging its lower end in the ribbon oscillator lever hook, and the type bar carriage on the typing units.



CHANGES AND ADDITIONS  
TO PARTS BULLETINS  
COVERING TYPE BAR PAGE PRINTERS  
(MODEL 15 AND 20)

Model 15

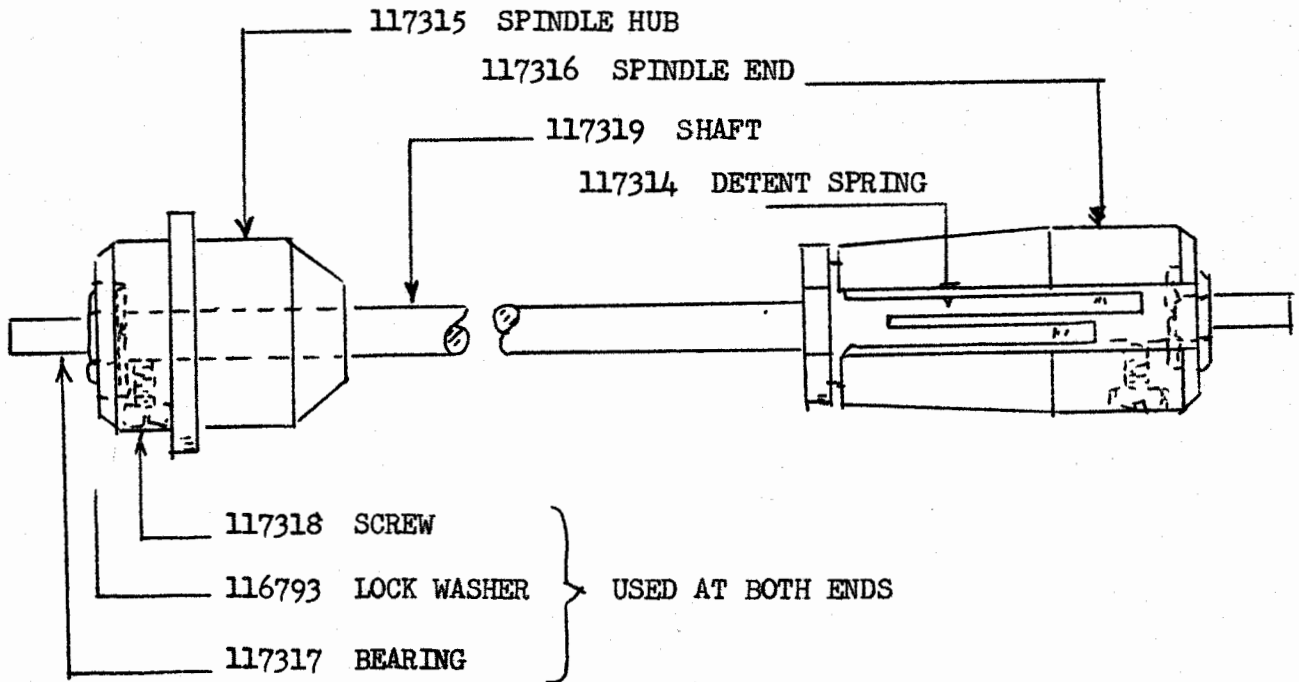
1037 Issue 4  
1094 Issue 2  
1110 Issue 2  
1114 Issue 1

Model 20

1063 Issue 2

The 74876, 74922, 80455, 88020, and 91111 paper roll spindle assemblies (wood) shown in the above bulletins, have been replaced by a new style 117313 Paper Roll Spindle Assembly (Metal).

The 117313 is adjustable so as to accommodate all widths of paper. The drawing below illustrates the component parts of the new design.



117313 PAPER ROLL SPINDLE (ASSEM.)  
(ADJUSTABLE)



ADDITION TO BULLETINS

Bulletin 127, Issue 3, Type Bar Tape Printer (Model 14), Page 36  
Bulletin 137, Issue 2, Typewheel Tape Printer (Ticker), Page 29  
Bulletin 138, Issue 5, Type Bar Page Printer (Model 15), Page 50  
Bulletin 141, Issue 3, Transmitter, Page 18  
Bulletin 147, Issue 2, Single Magnet Reperforator, Page 14  
Bulletin 159, Issue 2, Typewheel Page Printer (Model 26), Page 36  
Bulletin 160, Issue 1, Type Bar Printer (Model 20), Page 38  
Bulletin 170, Issue 1, Multiple Transmitter Distributor and Base, Page 9  
Bulletin 171, Issue 2, Typing Reperforator, Page 22  
Bulletin 175, Issue 1, Single Unit Transmitter and Base, Page 8  
Bulletin 176, Issue 1, Translator Unit, Receiving Distributor and Pane, Page 8  
Bulletin 178, Issue 1, Reperforator Transmitter Distributor, Page 46  
Bulletin 182, Issue 1, Multiplex, Start-Stop Extensor Set, Page 22  
Bulletin 183, Issue 1, Portable Signal Distortion Test Set, Page 5  
Bulletin 185, Issue 1, Multiple Transmitter Distributors and Base, Page 12  
Bulletin 186, Issue 1, Two Channel Start-Stop Transmitter Distributor, Page 20  
Bulletin 189, Issue 1, XD79 and XD95 Distributors, Page 15  
Bulletin 192, Issue 1, Teletype Automatic Wheatstone Perforator Set, Page 19  
Bulletin 193, Issue 1, Reperforator Transmitter Distributor (Model 14) Page 39  
Bulletin 197, Issue 1, Multiple Reperforator Set Page 25

Add the following adjustment immediately preceding the "SPEED  
ADJUSTING WHEEL FRICTION WASHER SPRING TENSION ADJUSTMENT":

ADJUSTMENTS FOR ALIGNMENT AND SQUARENESS OF GOVERNOR CONTACTS

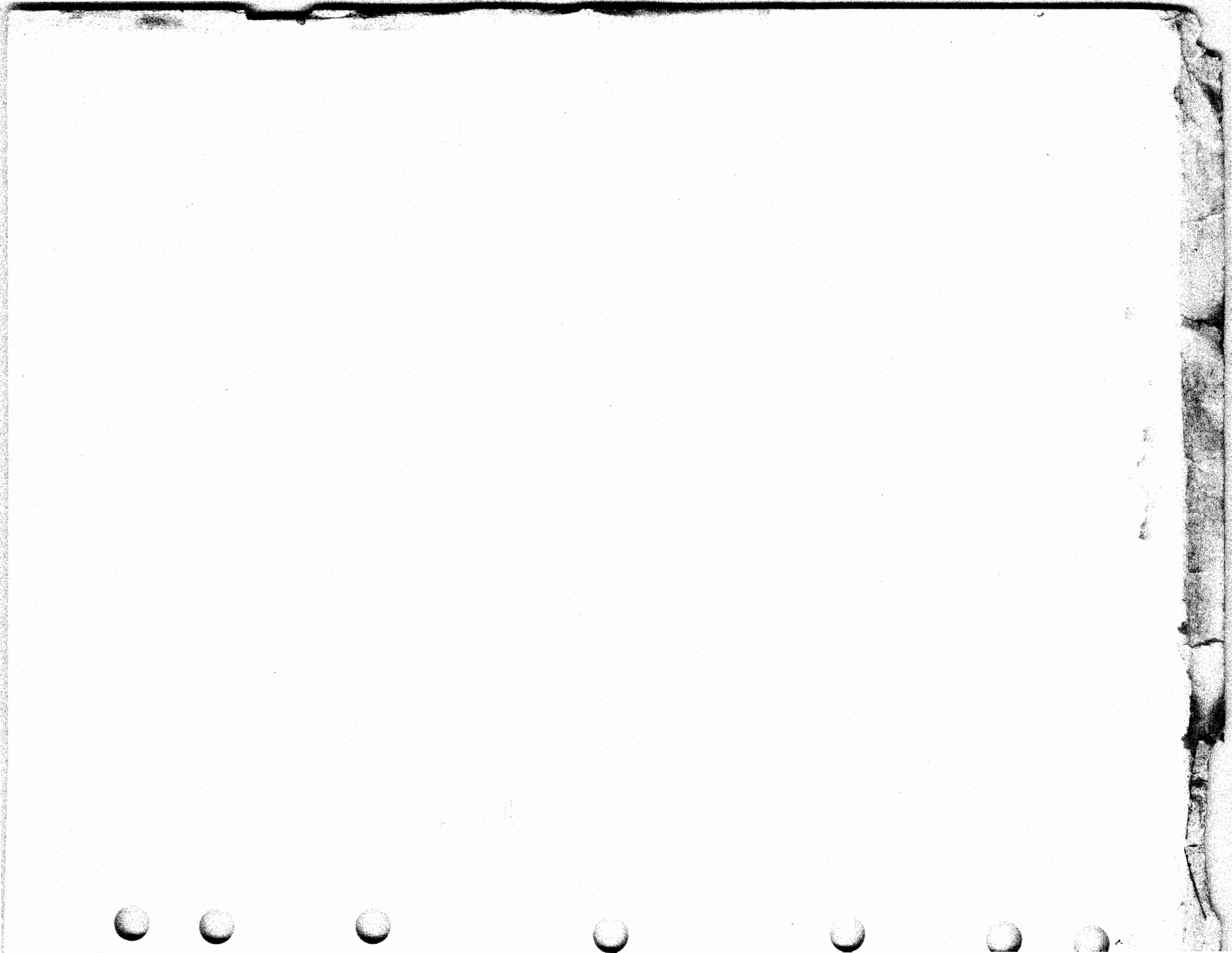
All governor contacts can be adjusted for alignment of edges; only those governor shells which provide elongated mounting holes for the fixed contact bracket permit adjustment of the contact for height by positioning the contact bracket.

The governor contacts should be in line and meet squarely so that maximum contact surface is provided. (Check with the retractile spring tension. Adjusted so that the contacts just make, or the limit of the adjusting screw.)

- (a) Line up edges of contacts by means of the floating contact hinge mounting screw.
- (b) Adjust contacts for squareness from right to left by positioning the height of the fixed contact bracket using the elongated mounting holes in the governor shell.
- (c) To adjust from front to back, twist the floating contact hinge, applying pressure to the arm near the contact.

NOTE: Check by use of a .002" gauge (smaller if available). Check with gauge between edges of contacts to see that gauge enters (or does not enter equally on all sides.

\* \* \*



CHANGES IN  
BULLETIN 138 (ISSUE 5)  
ADJUSTMENTS - TYPE BAR  
PAGE PRINTER MODEL 15  
AND  
BULLETIN 160 (ISSUE 1)  
ADJUSTMENTS - TYPE BAR  
PAGE PRINTER MODEL 20

BULLETIN 138, PAGE 55  
BULLETIN 160, PAGE 47

ADJUSTMENTS OF SEND-RECEIVE-BREAK MECHANISM HAVING SINGLE UPPER CONTACT

SEND-RECEIVE-BREAK CONTACT SPRINGS ADJUSTMENT

Change Paragraph (B) - (1) and (2); (Paragraph (B) - (a) and (b) in Bulletin 160) to read as follows:

- (1) With the left end of the upper contact lever held against the top of the notch in the safety pawl, there should be at least .008" clearance between the fibre insulator on the No. 6 contact spring and the extension on the upper contact lever. Make certain that contacts No. 5 and No. 6 are separated by at least .015" when the break lever is operated. Adjust by bending contact spring No. 5.
- (2) Contact No. 6 should exert a pressure on contact No. 5. Hook an 8 oz. scale around contact spring No. 6 just above the contact point and pull horizontally to the right. It should require 4-1/2 to 5-1/2 ozs. to just open the contacts. Adjust by bending contact spring No. 6. Recheck (1).

REFER TO FIGURES INDICATED IN RESPECTIVE BULLETINS.

BULLETIN 138, PAGE 56  
BULLETIN 160, PAGE 48

ADJUSTMENTS OF SEND-RECEIVE-BREAK MECHANISM HAVING TWO UPPER CONTACTS

SEND-RECEIVE-BREAK CONTACT SPRINGS ADJUSTMENT

Change this adjustment to read as follows:

Viewing the base from the front, the send-receive-break contact springs are numbered 1, 2, 3, 4, 5, and 6 from left to right.

- (A) Move the send-receive lever to the SEND position (up).
  - (1) All contact springs and points should be in line.
  - (2) There should be some clearance, not more than .008" between the fibre insulator on the lower end of No. 1 contact spring and the extension on the lower contact lever to the right of it.





When checking this clearance, the lower contact lever should be held firmly against its top. Adjust by bending contact spring No. 2.

- (3) Contact No. 1 should exert a pressure against contact No. 2. Hook an 8 oz. scale around contact spring No. 1, just below the contact point, and pull horizontally toward the left. It should require 1 to 2 ozs. to just separate contacts No. 1 and No. 2. Adjust by bending contact spring No. 1. Recheck (2).
- (4) All the clearance requirements, pertaining to contact springs No. 3 to No. 6 inclusive, given in the following paragraphs will most always be met if these 3 preliminary requirements are met:
  - (a) The stiffeners for contact springs No. 4 and No. 5 should be straight.
  - (b) Contact springs No. 4 and No. 5 should rest against their respective stiffeners with perceptible tension. There should be no gaps between the ends of the stiffeners and the contact springs when the contacts are open. However, a gap or not more than .004" will be permissible at any other point.
  - (c) With the send-receive lever in the RECEIVE position (down), the extension on the upper contact lever should be approximately midway between imaginary lines extending up from contact springs No. 4 and 5. If necessary, bend the extension on which the double contact springs are mounted to meet this requirement. It will be permissible to vary this requirement if necessary, in cases where the clearance requirements given in the following paragraphs cannot be met.
- (5) With the send-receive lever in the SEND position (up), there should be a clearance of at least .015" between No. 3 and No. 4 contacts. If necessary to adjust, see (4).
- (6) Move the send-receive lever to the RECEIVE position (down) and make sure that No. 3 and No. 4 contacts close.
- (7) There should be at least .015" clearance between No. 1 and No. 2 contacts. Adjust by bending contact spring No. 2. Recheck (2).
- (8) Contact No. 3 should exert a pressure against contact No. 4. Hook an 8 oz. scale around contact spring No. 3 just above the contact point and pull horizontally toward the left. It should require 1 to 2 ozs. to just separate contacts No. 3 and No. 4. Adjust by bending contact spring No. 3. Recheck (5).



- (9) With the left end of the upper contact lever held against the stop lug on the stop lever plate, there should be at least .008" clearance between the fibre insulator on No. 6 contact spring and the extension on the upper contact lever. Make certain that contacts No. 5 and No. 6 are separated by at least .015" when the break lever is operated. If necessary to adjust, see (4).
- (10) Contact No. 6 should exert a pressure against contact No. 5. Hook an 8 oz. scale around contact spring No. 6 just above the contact point and pull horizontally toward the right. It should require 4-1/2 to 5-1/2 ozs. to just separate contacts No. 5 and No. 6. Adjust by bending contact spring No. 6. Recheck (9).

\* \* \*



CHANGES AND ADDITIONS  
TO PARTS BULLETINS  
SHOWN BELOW

In order to facilitate identification of selector cam sleeve assemblies they are stamped with identifying letters. The chart below shows the cam sleeve assembly numbers and identifying letters.

BULLETIN NUMBER	TYPE OF APPARATUS	CAM SLEEVE ASSEMBLY NUMBER	STAMPED WITH LETTERS
1028 Issue 2	Type Bar Tape Printer (Model 14)	*8507	CX
1030 Issue 2			
1031 Issue 3			
1048 Issue 2			
1082 Issue 2	Typing Reperforator (Model 14)	*8507 **91265	CX MX
1088 Issue 2			
1100 Issue 2			
1117 Issue 2	Reperforator Transmitter (Model 14)	**91265	MX
1108 Issue 1			
1126 Issue 1	Multiple Reperforator (RPE)	**111506	QX
1130 Issue 1			
1083 Issue 1	Non-Typing Selector (Model 14)	**91265	MX
1107 Issue 1			
1072 Issue 2	Regenerator Unit & Panel (RED)	**00010	HX
1121 Issue 1	Multiplex Extensor Unit (AME)	**103891	PX
1064 Issue 2	Reperforator Model 14 Model 20	*86158	GX
1080 Issue 1		*91020	LX
A 1037 Issue 4	Type Bar Page Printer	*8507 **91265	CX MX
B 1063 Issue 2			
1094 Issue 2	Model 20	*91019	KX
1110 Issue 2			
A1114 Issue 1	Type Wheel Page Printer (Model 24)	**90493	JX
1073 Issue 1			
1074 Issue 2			

A In Bulletins 1037 and 1114, Page 3, the stamping for the 8507 and 91265 cam sleeve assemblies should read "CX" and "MX" respectively.

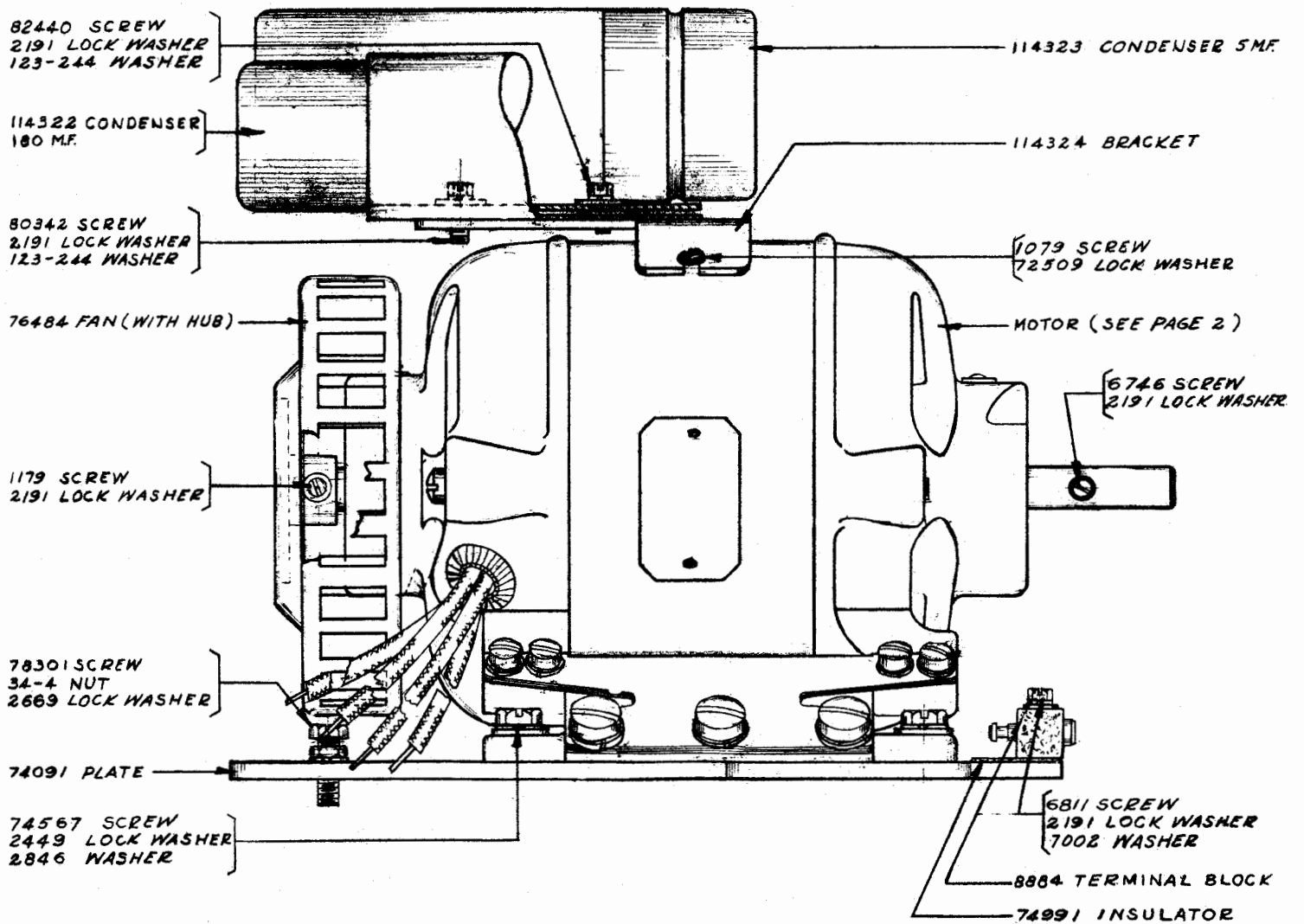
B In Bulletin 1063, top of Page 27, the stamping for the 91019 should read "KX".

\* For use with "Pulling Magnet Selectors".

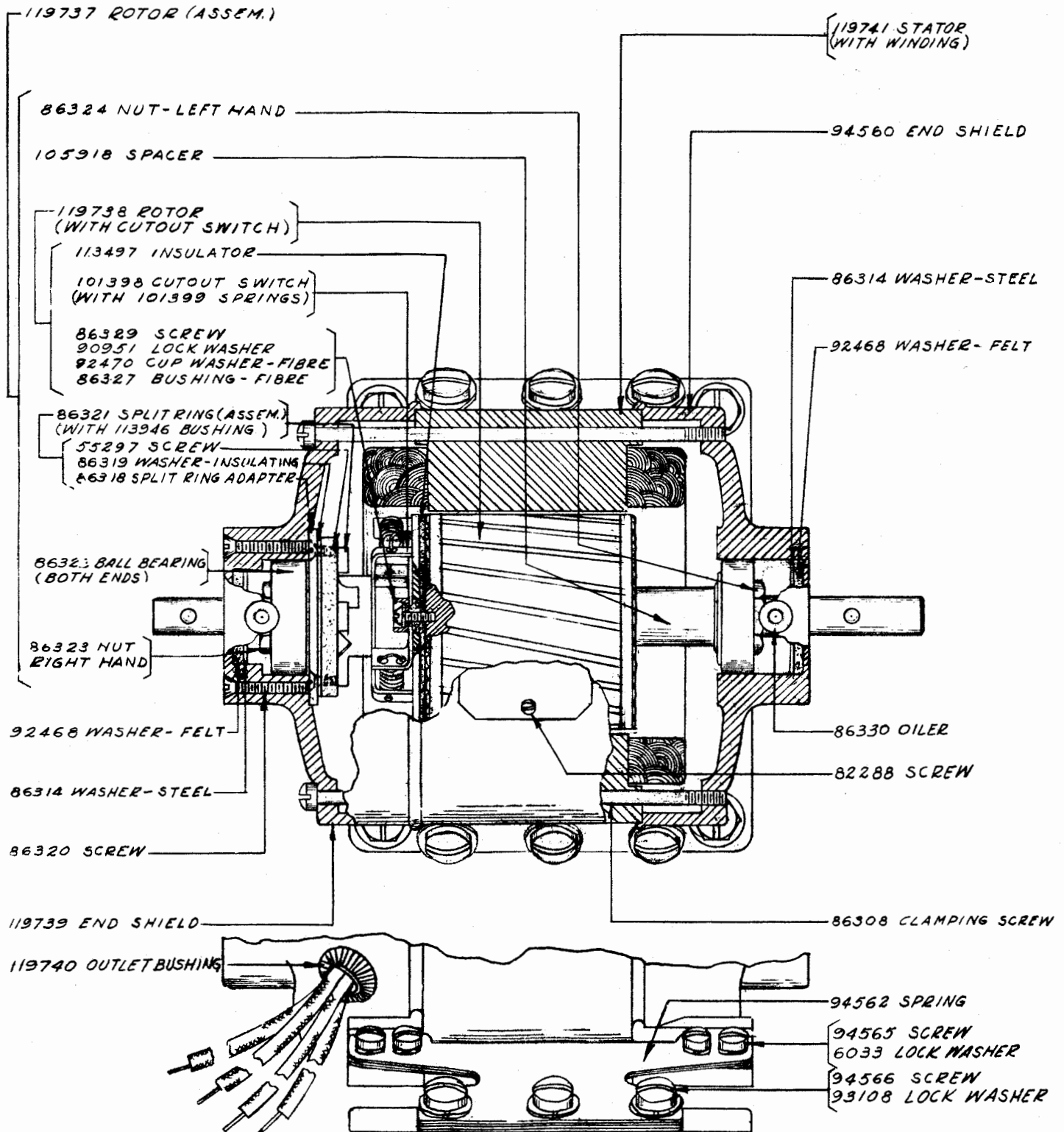
\*\* For use with "Holding Magnet Selectors".



CHANGES AND ADDITIONS  
TO BULLETINS 1037, 1094 AND 1114  
TO COVER PARTS ORDERING INFORMATION FOR  
MU33 (25 CYCLE) SYNCHRONOUS MOTOR UNIT.



MU33 MOTOR UNIT (INCLUDES 114321 MOTOR) SHOWN ON PAGE 2  
AND ALL PARTS LISTED ON THIS PAGE.



114321 SYNCHRONOUS MOTOR 1/40 H.P. 115V., 25 CYCLE A.C. (H.C. MODEL S-9060)



CHANGES AND ADDITIONS  
TO PARTS BULLETINS

B-1014 (Issue 3)	B-1048 (Issue 2)	B-1088 (Issue 2)	B-1114 (Issue 1)
B-1015 (Issue 2)	B-1051 (Issue 1)	B-1094 (Issue 2)	B-1116 (Issue 1)
B-1019 (Mar. 1928)	B-1063 (Issue 2)	B-1095 (Issue 1)	B-1117 (Issue 2)
B-1028 (Issue 2)	B-1064 (Issue 2)	B-1100 (Issue 2)	B-1119 (Issue 1)
B-1030 (Issue 2)	B-1072 (Issue 2)	B-1101 (Issue 1)	B-1120 (Issue 1)
B-1031 (Issue 3)	B-1073 (Issue 1)	B-1104 (Issue 1)	B-1121 (Issue 1)
B-1035	B-1074 (Issue 2)	B-1105 (Issue 1)	B-1122 (Issue 2)
B-1036 (Issue 3)	B-1079 (Issue 2)	B-1107 (Issue 1)	B-1125 (Issue 1)
B-1037 (Issue 4)	B-1080 (Issue 1)	B-1109 (Issue 1)	B-1127 (Issue 1)
B-1041 (Issue 4)	B-1082 (Issue 2)	B-1110 (Issue 2)	

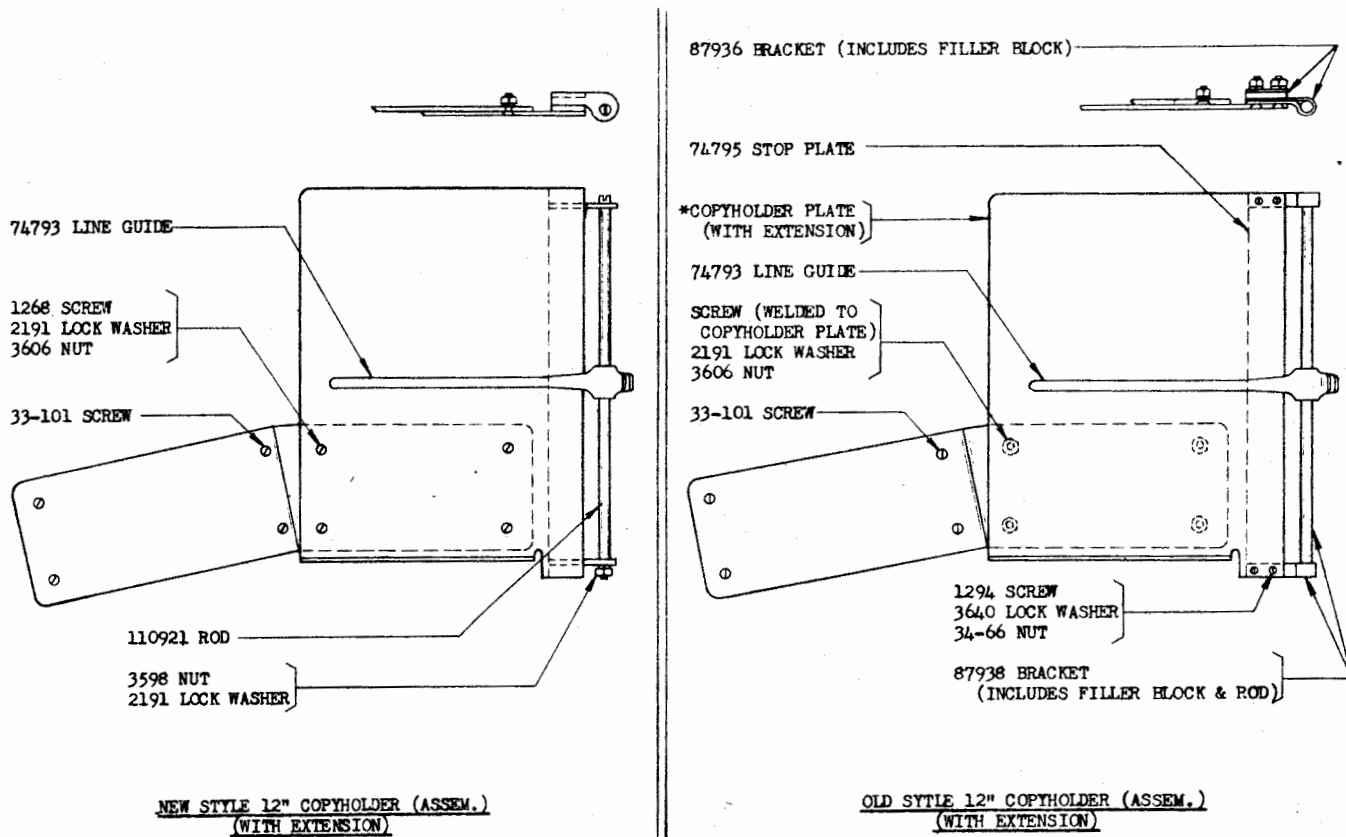
The 6314 contact spring (assem.), used on governors shown in the above bulletins, has been redesigned to provide a smoother, flatter and thicker all-tungsten contact for greater service life. In the new design, which retains its original assembly number, the tungsten contact is welded directly to the contact spring, whereas in the old design the tungsten contact was welded to a screw (comprising the 72835 contact point) and then threaded into a tapped hole in the contact spring.

The 72835 contact point is no longer available; when it becomes necessary to replace this part a new style 6314 contact spring (assem.), which includes an 86868 bushing and an 86869 post, should be ordered.



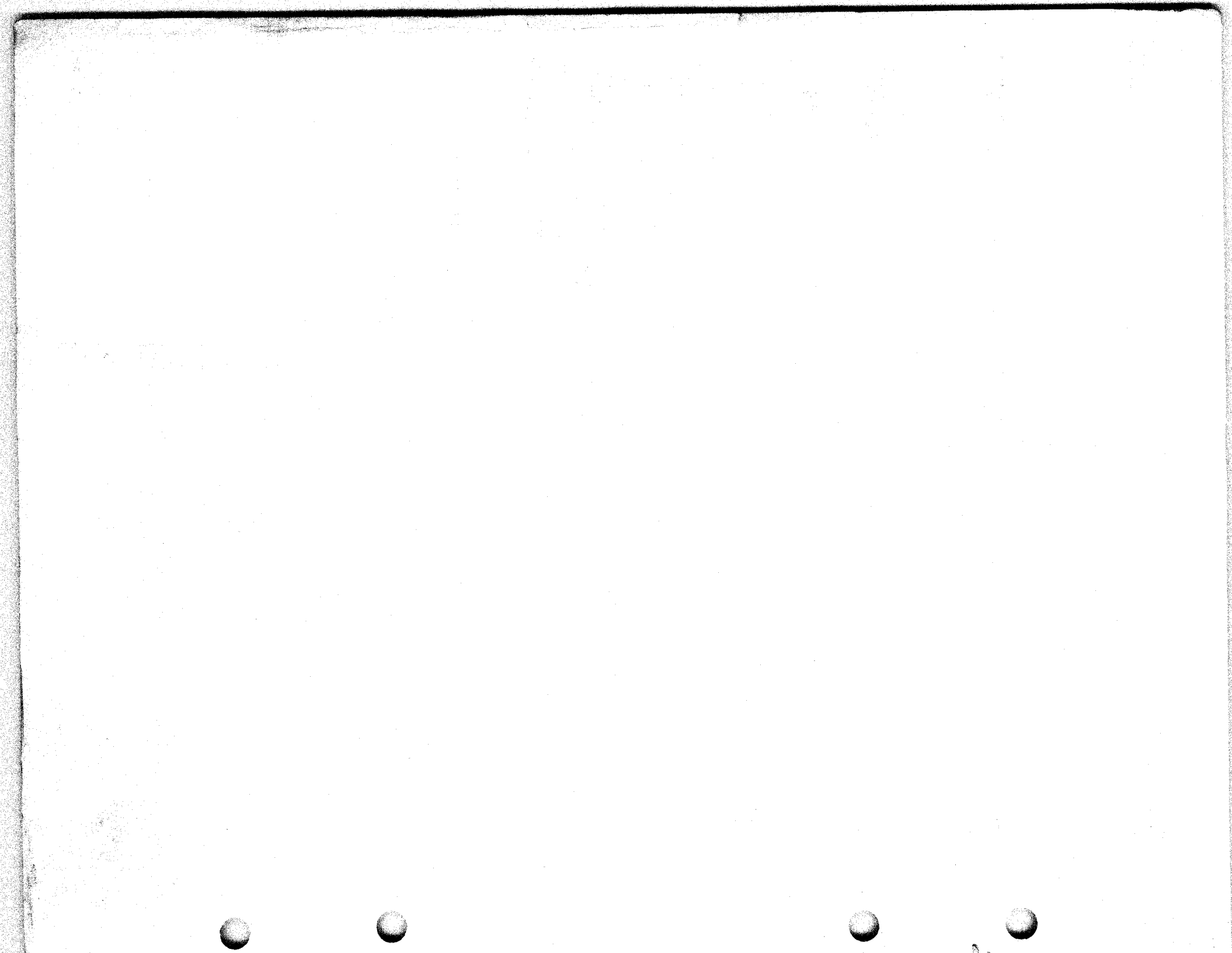
CHANGES AND ADDITIONS  
TO PARTS BULLETINS  
1037 (ISSUE 4)  
1063 (ISSUE 2)  
1067 (ISSUE 2)  
1114 (ISSUE 1)

The 12" copyholder assemblies (with extension) shown in the above bulletins have been redesigned and assigned new assembly numbers. The sketches below illustrate the difference between the new and old style assemblies, which are interchangeable and the chart lists the new and old assembly numbers.



TELETYPE CODE (NEW ASSEMBLY)	FINISH		TELETYPE CODE (OLD ASSEMBLY)
	COLOR	SUFFIX	
115709CA	WALNUT	CA	74794
115709EA	BLACK HIGH GLOSS	EA	74831
115709CB	MAHOGANY	CB	82510
115709AC	LIGHT BROWN WRINKLE	AC	102446
115709AA	BLACK WRINKLE	AA	91210
115709AD	DARK BROWN WRINKLE	AD	-
115709AB	GREY GREEN WRINKLE	AB	-

\*The old style copyholder plate (with extension) is no longer available. When it becomes necessary to replace an old style copyholder plate (with extension) a complete new style 12" copyholder (assem.) - (with extension) should be ordered.



CHANGE IN  
BULLETIN 138, ISSUE 5  
ADJUSTMENTS - TYPE BAR PAGE PRINTER  
(MODEL 15)  
AND  
BULLETIN 160, ISSUE I  
ADJUSTMENTS - TYPE BAR PAGE PRINTER  
(MODEL 20)

Bulletin 138, Page 5 (Figures 6 and 7)  
Bulletin 160, Page 3 (Figures 5 and 6)

RIBBON FEED SHAFT BEARING PLATES ADJUSTMENT

Change the first sentence of this adjustment to read as follows:

"The left end of the ribbon feed shaft should be flush with or extend not more than .015" over the inner end of the left vertical feed shaft bevel gear teeth, when the ribbon feed shaft is in its left position and the left vertical feed shaft bevel gear is held in engagement with the ribbon shaft gear."

Add the following note after the adjustment:

NOTE: Check the lateral movement of the ribbon feed shaft (movement from one detented position to the other); it should measure at least  $3/16$ ". If necessary, refine the ribbon feed shaft bearing plates adjustment.

\* \* \*

W. J. L. W. G.  
1947  
1948

ADDITION TO  
BULLETIN 138, (ISSUE 5)  
ADJUSTMENTS - TYPEBAR  
PAGE PRINTER MODEL 15

PAGE 41

SEND-RECEIVE T LEVER FRICTION WASHER (Figure 65A)

Add the following immediately after this adjustment:

To adjust, replace friction washer with a new one.

NOTE: On units equipped with the send-receive-break mechanism operating on a double blank signal, the friction requirement to 5 to 6-1/2 ozs. may be obtained by adjusting the position of the stop nut when the send-receive "T" lever is equipped with the 119925 elastic stop nut and 71047 shim in place of the 3598 nut and 2191 lockwasher previously furnished.





ADDITION TO BULLETIN 138, ISSUE 5  
ADJUSTMENT - TYPE BAR PAGE PRINTER  
MODEL 15

PAGE 30

PLATEN BALANCE SPRING TENSION

Change the second sentence to read as follows: It should require 3-1/2 to 5 lbs. to pull the spring to position length on units equipped with cast iron platen brackets: 1-1/4 to 2 lbs. on units equipped with aluminum platen brackets.

\* \* \*



CHANGES IN  
BULLETIN 138 (ISSUE 5)  
ADJUSTMENTS - TYPE BAR PAGE PRINTER MODEL 15  
AND  
BULLETIN 160, (ISSUE 1)  
ADJUSTMENTS - TYPE BAR PAGE PRINTER MODEL 20

BULLETIN 138, Page 7  
BULLETIN 160, Page 5

RIBBON REVERSE SHAFTS LINKS ADJUSTMENT

Change the requirement to read .015" to .050" instead of .015" to .040".

BULLETIN 138, Page 11  
BULLETIN 160, Page 8

CARRIAGE SUPPORT AND FULL BAR BAIL PLUNGER ROLLERS ADJUSTMENT

Change the requirements to read, with a barely perceptible amount of end play, instead of without end play.

BULLETIN 138, Page 32  
BULLETIN 160, Page 22

LINE FEED CHECK LEVER ADJUSTMENT

Change the requirement to read, not more than .008" end play, instead of not more than .004".

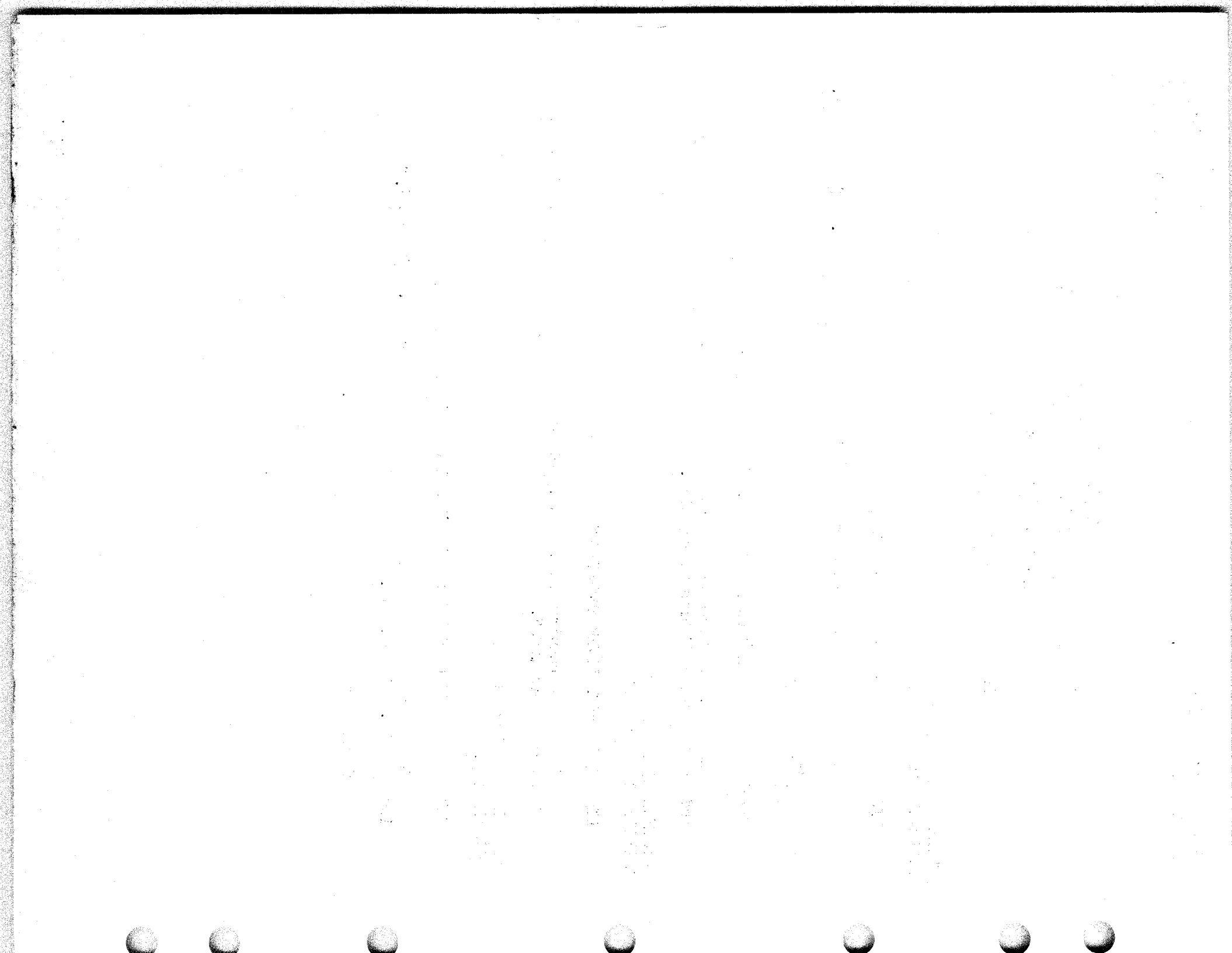
BULLETIN 138, Page 37  
BULLETIN 160, Page 26

CARRIAGE RETURN LOCK BAR LATCH ECCENTRIC SCREW ADJUSTMENT

Change the requirement in this adjustment to read .006" to .020" instead of .006" to .015".

Change corresponding figures accordingly.

\* \* \* \* \*



ADDITION TO ADJUSTMENT BULLETINS

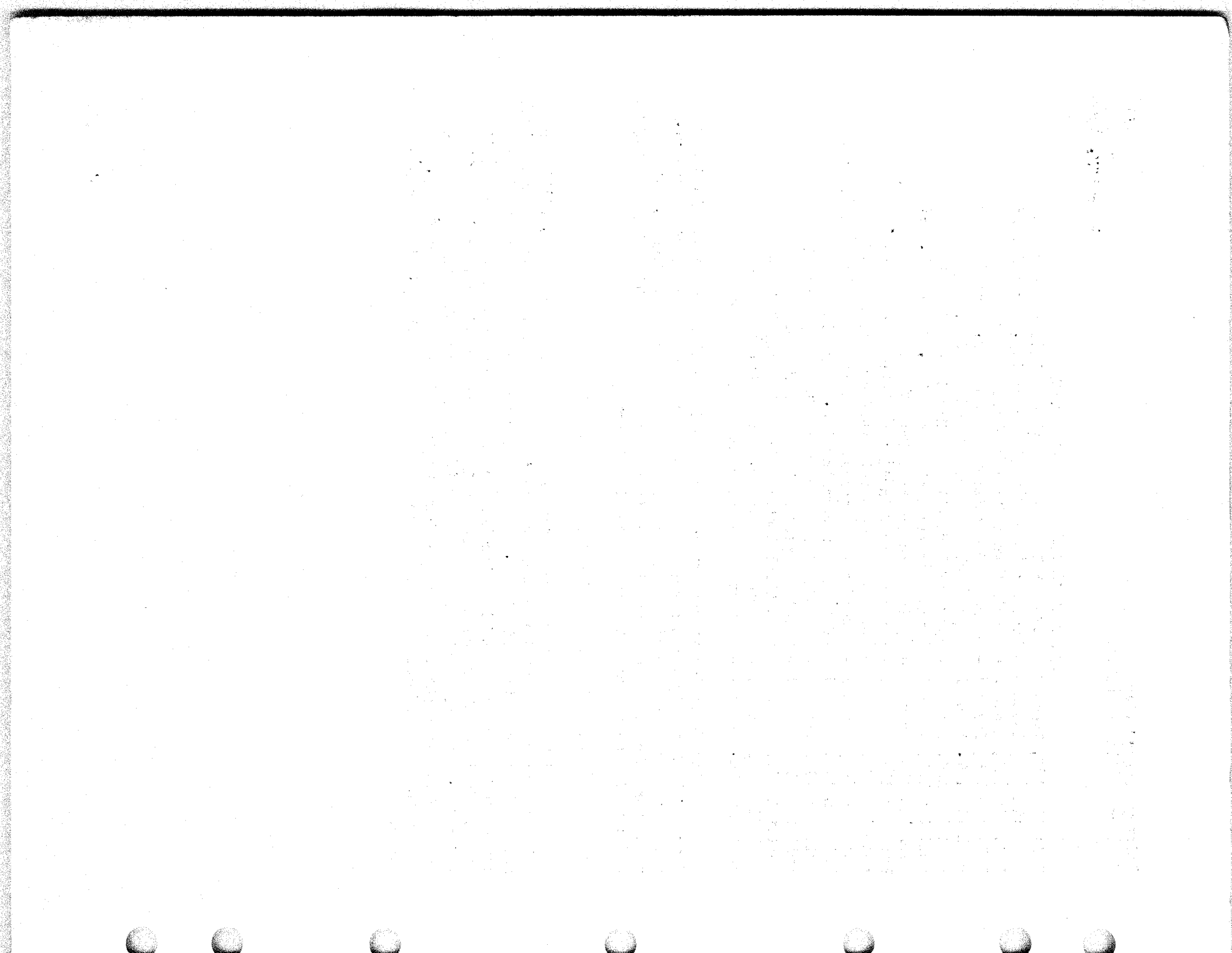
- Bulletin 127, Issue 3 - Type Bar Tape Printer (Model 14), Pages 7, 13
- Bulletin 138, Issue 5 - Type Bar Page Printer (Model 15), Pages 21, 26
- Bulletin 147, Issue 2 - Single Magnet Reperforator, Page 6
- Bulletin 155, Issue 1 - Start-Stop Regenerative Repeater, Page 8
- Bulletin 159, Issue 2 - Type Wheel Page Printer (Model 26), Page 6
- Bulletin 160, Issue 1 - Type Bar Page Printer (Model 20), Page 16
- Bulletin 165, Issue 3 - Typing Reperforator (Model 14), Pages 2-5, 2-8
- Bulletin 171, Issue 2 - Typing Reperforator, Page 7
- Bulletin 178, Issue 1 - Reperforator Transmitter Distributor, Page 9
- Bulletin 182, Issue 1 - Multiplex Start-Stop Extensor Set, Page 17
- Bulletin 193, Issue 1 - Reperforator Transmitter Distributor (Model 14), Page 8
- Bulletin 197, Issue 1 - Multiple Reperforator Set. Page 16
- Bulletin 198, Issue 1 - Type-Wheel Page Printer (Model 27), Page 18
- Bulletin 199, Issue 1 - Simplex-Diplex Converter, Page 2-4
- Bulletin 201, Issue 1 - Sequential Control (SECO) System, Page 5-5
- Bulletin 203, Issue 1 - Reperforator Transmitter (Model 14), Page 2-5
- Bulletin 204, Issue 1 - Sequential Selector (SOTUS), Page 3-6

The following adjustment applies to units equipped with the Adjustable Range Scale Assembly which permits regulation of the engagement between the stop arm on the selector cam sleeve and the stop lever on the range finder. The adjustment should be made immediately after the STOP LEVER SPRING TENSION ADJUSTMENT; bulletins and affected pages are listed above.

SELECTOR STOPARM AND STOP LEVER ENGAGEMENT ADJUSTMENT

With the selector magnet armature in the spacing position, rotate the selector cam sleeve until the stop arm moves the stop lever to its maximum travel beyond the step of the trip latch. Loosen the range scale assembly mounting screws and the positioning link mounting screw just enough to make them friction tight. Position the range scale assembly so that the overtravel of the stop lever beyond the trip latch is at least half but not more than the width of the stop lever. This should be checked with the range indicator set at 0, 60, and 120 on the range scale. Tighten the mounting screws and the positioning link screw.

\* \* \*



ADDITION TO PARTS BULLETINS  
LISTED BELOW

1028 (Issue 2)	1080 (Issue 1)	1114 (Issue 1)
1039 (Issue 2)	1082 (Issue 2)	1116 (Issue 1)
1031 (Issue 3)	1083 (Issue 1)	1117 (Issue 2)
1037 (Issue 4)	1088 (Issue 2)	1121 (Issue 1)
1063 (Issue 2)	1094 (Issue 2)	1126 (Issue 1)
1064 (Issue 2)	1100 (Issue 2)	1130 (Issue 1)
1072 (Issue 2)	1107 (Issue 1)	1141 (Issue 1)
1073 (Issue 1)	1108 (Issue 2)	1142 (Issue 1)
1074 (Issue 2)	1110 (Issue 2)	1143 (Issue 1)

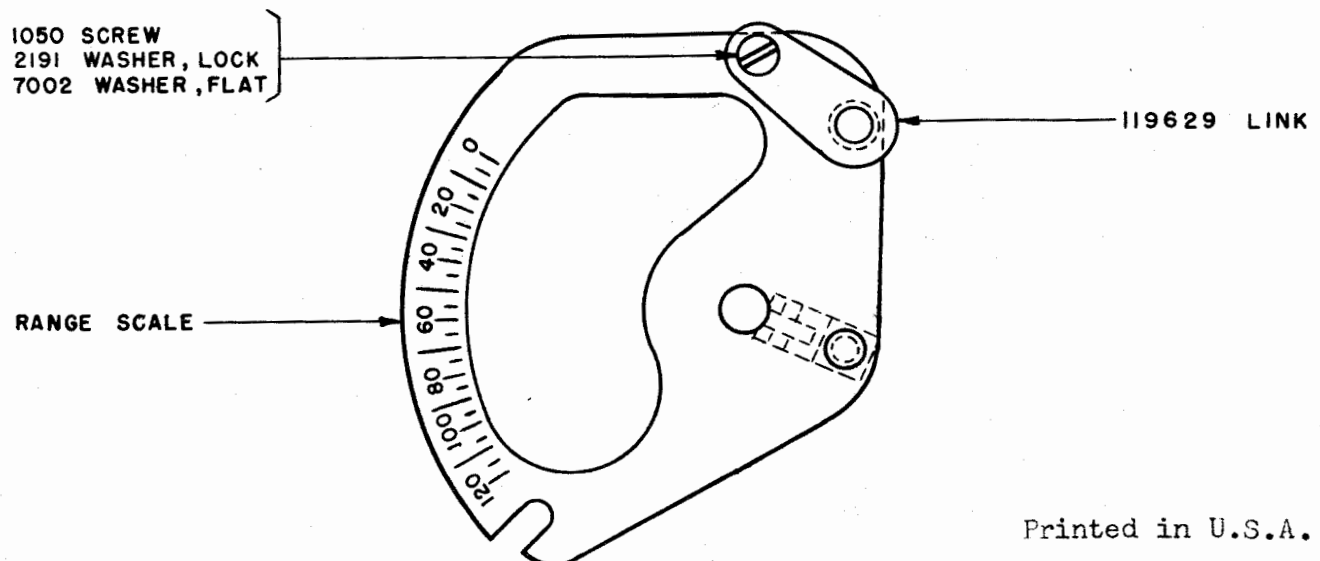
This correction sheet covers parts ordering information for the Adjustable Range Scale assembly. This assembly includes an adjusting link that mounts on the 90775 modified range scale to allow regulation of the engagement between the stop arm on the selection cam sleeve and the stop lever on the range scale assembly.

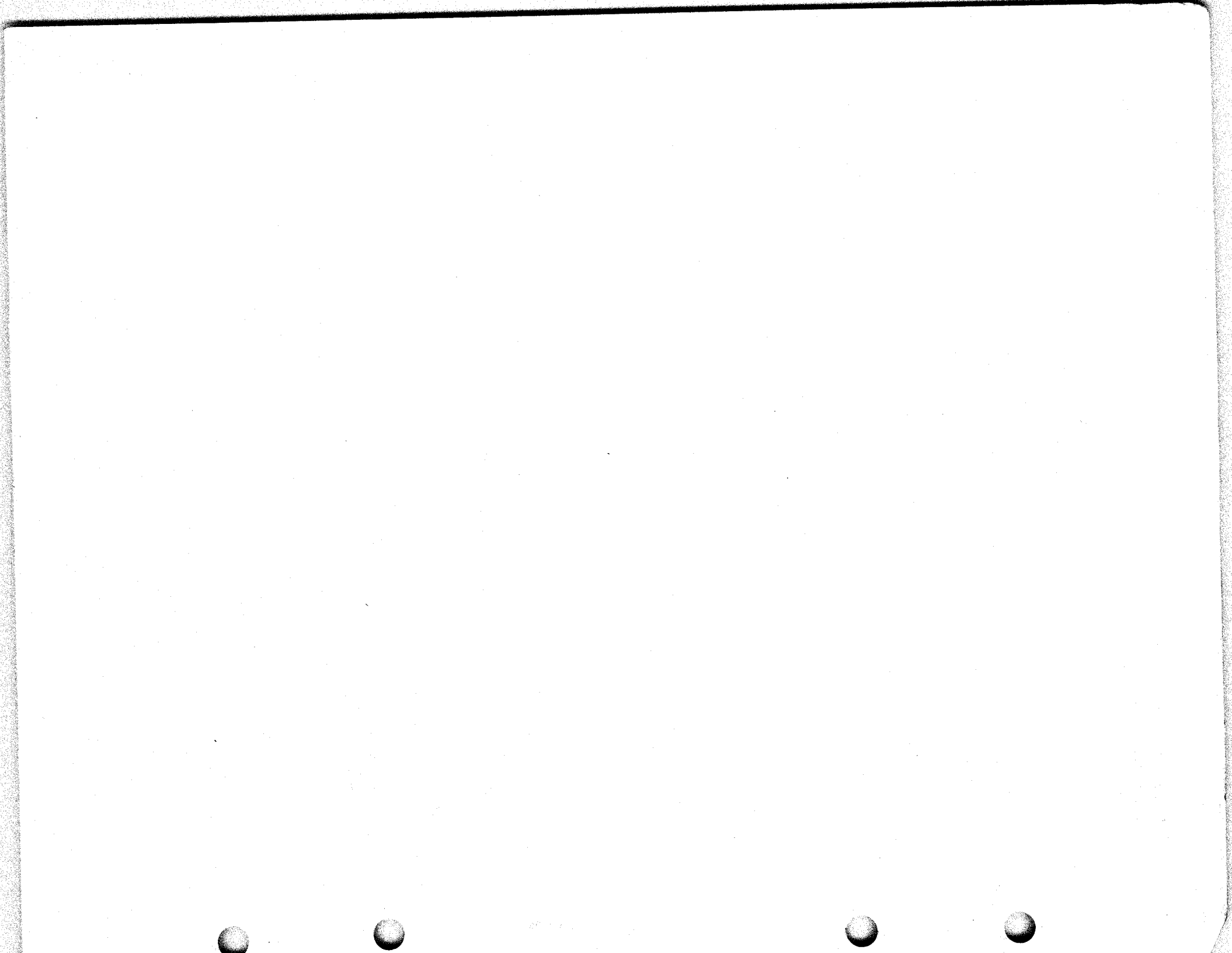
In the bulletins listed above, and in connection with each range scale assembly shown (71696, 83562, 86154, 90086, 90775, or 90776 depending on the unit), add the following parts:

119629 Link  
1050 Screw  
2191 Lock Washer  
7002 Washer

The part numbers of the other equipment in the assembly are unchanged. The Adjustable Range Scale Assembly replaces the previous Range Scale Assembly, and orders for the old part numbers will be filled accordingly.

The two assemblies are interchangeable on the printer. Due to the modifications in the range scale, however, it is necessary to order a complete assembly to convert existing apparatus.







ADDITION TO  
BULLETIN 138, ISSUE 5  
ADJUSTMENTS  
TYPE BAR PAGE PRINTER MODEL 15

For special features of BP99 and BP105 typing units, the following adjustments apply:

1. SIGNAL BELL HAMMER BACKSTOP SCREW ADJUSTMENT

With the bell latch bar in its latched position there should be .020" to .040" clearance between the bell hammer extension and the bell operating lever. To adjust, position the signal bell hammer backstop screw.

2. FIGURES CONTACT AND BELL HAMMER BACKSTOP BRACKET ADJUSTMENT

Position the contact and backstop bracket by means of its mounting screws to provide at least .015" clearance between the bracket and the spacing shaft, and so that the shift push bar engages the contact operating lever at approximately the center of the engaging section of the contact lever.

3. FIGURES CONTACT ADJUSTMENT

a. FIGURES CONTACT ASSEMBLY ADJUSTMENT

Select the figures combination and rotate the main shaft until the figures contact operating lever just touches the bakelite extension on the long figures contact spring. The lobe on the contact operating lever should contact the bakelite extension approximately in the center. To adjust, position the contact assembly by means of its mounting screws.

NOTE

Make certain that the lobe of the contact operating lever stays within 1/16" of the edge of the bakelit extension when the contact lever is fully operated.

b. UPPER FIGURES CONTACT SPRING ADJUSTMENT

With the blank combination fully selected, there should be from .005" to .010" clearance between the bakelite extension of the upper contact spring and the lobe on the figures contact operating lever. To adjust, bend the upper contact spring.

c. LOWER FIGURES CONTACT SPRING ADJUSTMENT

Hook an 8 oz. scale at the contact point of the lower contact spring. It should require from 2 to 3 ozs. to start the spring moving away from its stiffener. To adjust, bend the lower contact spring.

#### FIGURES CONTACTS GAP ADJUSTMENTS

d. When the printing bail is in its extreme rear position, there should be from .020 inches to .025 inches clearance between the contact points. To adjust, bend the lower contact spring stiffener.

e. Recheck Adjustment C.

#### 4. "H" CONTACT ADJUSTMENTS

##### a. LONG CONTACT SPRING POSITION ADJUSTMENT

Apply the push end of an 8 ounce scale to bakelite tip on the long contact spring. It should require from  $\frac{1}{2}$  to  $1\frac{1}{2}$  ounces to start the spring moving away from its stiffener. To adjust, bend the long contact spring.

##### c. CONTACT GAP ADJUSTMENT

There should be from .015 inches to .020 inches clearance between contact points of the long and short contact spring. To adjust, bend the short contact spring stiffener.

##### d. SHORT CONTACT SPRING ADJUSTMENT

Hook an 8 ounce scale over the end of the short contact spring at the contact point. It should require from 2 to 3 ounce to start the short contact spring moving away from its stiffener. To adjust, bend the short contact spring.

e. Recheck Adjustment C.

#### 5. UNIVERSAL SWITCHING CONTACT ADJUSTMENT

##### NOTE

Contact springs are numbered 1, 2, 3, 4, and 2 counting in from the head of the pile-up mounting screw.

##### a. NUMBER 4 UNIVERSAL CONTACT SPRING STIFFENER ADJUSTMENT

Rotate the main shaft until the printing bail is in its extreme forward position. There should be a clearance of .005 inches to .010 inches between the Number 4 contact spring and the end of its stiffener. To adjust, bend the contact spring stiffener.

b. CONTACT GAP ADJUSTMENT BETWEEN NO. 4 AND NO. 5 CONTACT SPRINGS

Rotate the main shaft until the printing bail is in its extreme rear position. There should be from .015" to .020" gap between the contact points on the No. 4 and No. 5 contact springs. To adjust, bend the No. 5 contact spring.

c. NO. 4 CONTACT SPRING ADJUSTMENT

With an 8 oz. scale hooked over the end of the No. 4 contact spring at the contact point, it should require from 2 to 3 ozs. to just start the contact spring moving away from its stiffener. To adjust, bend the No. 4 contact spring.

d. NO. 3 CONTACT SPRING STIFFENER ADJUSTMENT

There should be some clearance, not more than .008", between the bakelite extension on the No. 2 contact spring and the No. 5 contact spring. To adjust bend the No. 3 contact spring stiffener.

e. NO. 3 CONTACT SPRING ADJUSTMENT

With a printing selection set up in the vanes and the printing bail in its forward (unblocked) position, hook an 8 oz. scale over the end of the No. 3 contact spring at the contact point. It should require from 3 to 4 ozs. to just start the contact spring moving away from its stiffener. To adjust, bend the No. 3 contact spring.

f. NO. 2 CONTACT SPRING ADJUSTMENT

With the printing bail in its rear position, hook an 8 ozs. scale over the end of No. 2 contact spring at the contact point. It should require from 2 to 3 ozs. to just open the contacts between No. 2 and No. 3 contact springs. To adjust, bend the No. 2 contact spring.

g. CONTACT GAP ADJUSTMENT BETWEEN NO. 1 AND NO. 2 CONTACT SPRINGS

There should be from .010" to .015" gap between the contact points of No. 1 and No. 2 contact springs. To adjust, bend the No. 1 contact spring stiffener.

h. NO. 1 CONTACT SPRING ADJUSTMENT

Hook an 8 oz. scale over the No. 1 contact spring at the contact point. It should require from 2 to 3 ozs. to just start the contact spring moving away from its stiffener. To adjust, bend the No. 1 contact spring.

i. UNIVERSAL CONTACT OPERATING LEVER ADJUSTMENT

With the upper case "H" combination selected and the main shaft rotated slowly until the upper case "H" contacts just close, there should be from .020" to .025" clearance between the engaging surface of the contact operating lever and the bakelite cam on the No. 5 contact spring. To adjust, position the contact operating lever by means of its clamping screws.

j. Replace the universal contact assembly cover.

k. TWO-COLOR RIBBON CONTROL MECHANISM

For adjusting and lubrication information see Teletype Correction Sheet EE-425.

m. ELECTRICAL WORD AND OPERATIONS COUNTER MECHANISM

For installation and adjusting information see Teletype Specification S-5196.

n. ANTI SPIN DEVICE ON PULLING MAGNET SELECTORS OPERATING AT 368 O.P.M.

For installation and adjusting information see Teletype Specification S-5577.

o. TABULATING INDICATOR (SCALE AND POINTER) MECHANISM

For installation and adjusting information see Teletype Specification S-5071.

p. MODEL 15 TYPING UNITS EQUIPPED WITH 32 TYPE BARS AND A TRANSMISSION SUPPRESSION MECHANISM - BP153

For adjusting and lubrication information see Teletype Specification S-5599.

6. "H" FUNCTION LEVER SPRING TENSION (FUNCTION LEVER IN SLOT NO. 13)

With the function lever resting against the rear edges of the vanes but not in selection, hook a 32 oz. scale under the extreme front end of the lever at the bend and pull at right angle to the lever toward the top of the printer. It should require from 24 to 32 ozs. to start the lever moving.

7. UPPER CASE "H" FUNCTION LEVER SPRING TENSION (FUNCTION LEVER IN SLOT NO. 6)

With the printing bail in its extreme rear position, unhook the function lever spring from the spring plate. Hook a 64 oz. scale in the spring eye and pull horizontally away from the typing unit. It should require from 40 to 50 ozs. to pull the spring to position length. Rehook the spring.

8. FIGURES CONTACT OPERATING LEVER SPRING TENSION

Rotate the main shaft until the printing bail is in its extreme rear position. Hook an 8 oz. scale over the spring post in the figures contact operating lever and pull horizontally toward the rear of the typing unit. It should require from 5 to 7 ozs. to just start the figures contact operating lever moving.

9. UNIVERSAL CONTACT OPERATING LEVER SPRING TENSION

Rotate the main shaft until the printing bail is in its extreme rear position. Unhook the contact operating lever spring from the contact spring bracket. Hook a 32 oz. scale in the end of the spring. It should require from 22 to 26 ozs. to pull the spring to position length. Rehook the spring.

10. LUBRICATION

Apply grease to the following points:

- a. Engagement of figures contact operating lever with shift push bar.

- b. Figures contact operating lever pivot.
- c. Engagement of figures contact operating lever with bakelite extension on upper contact spring.
- d. Bakelite cam on No. 5 universal contact spring at engagement with contact operating lever.
- e. Engagement of upper case "H" function lever with bakelite tip on long upper case "H" contact spring.

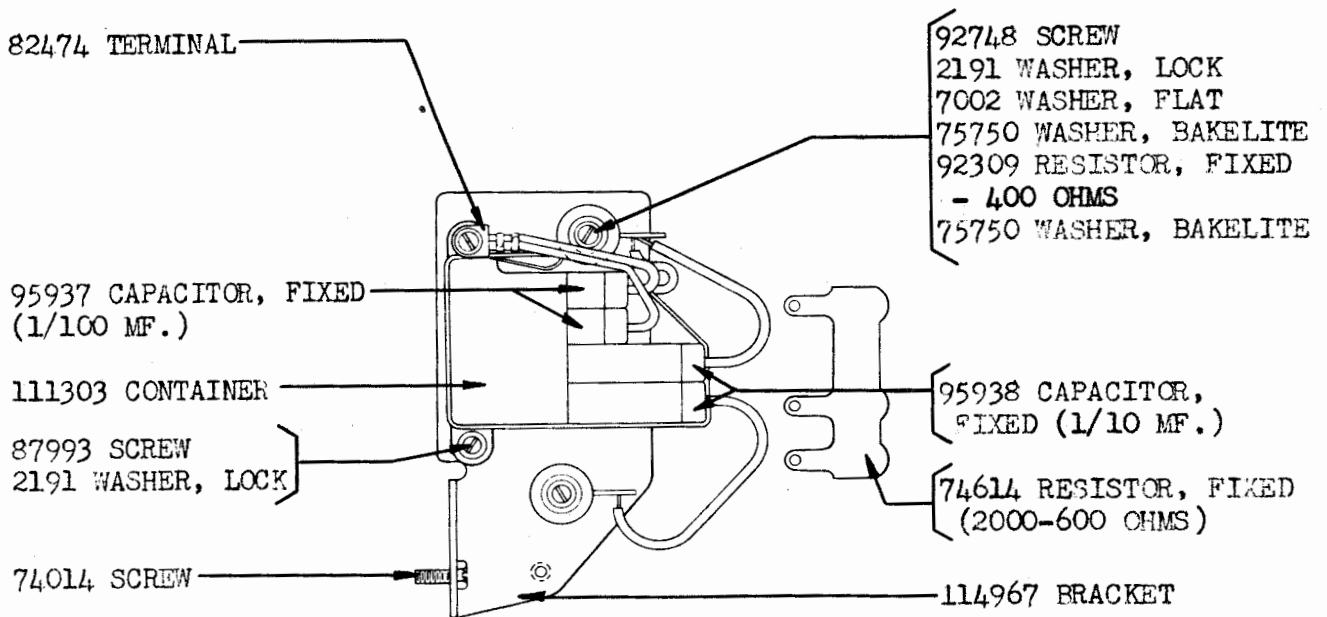
\* \* \*



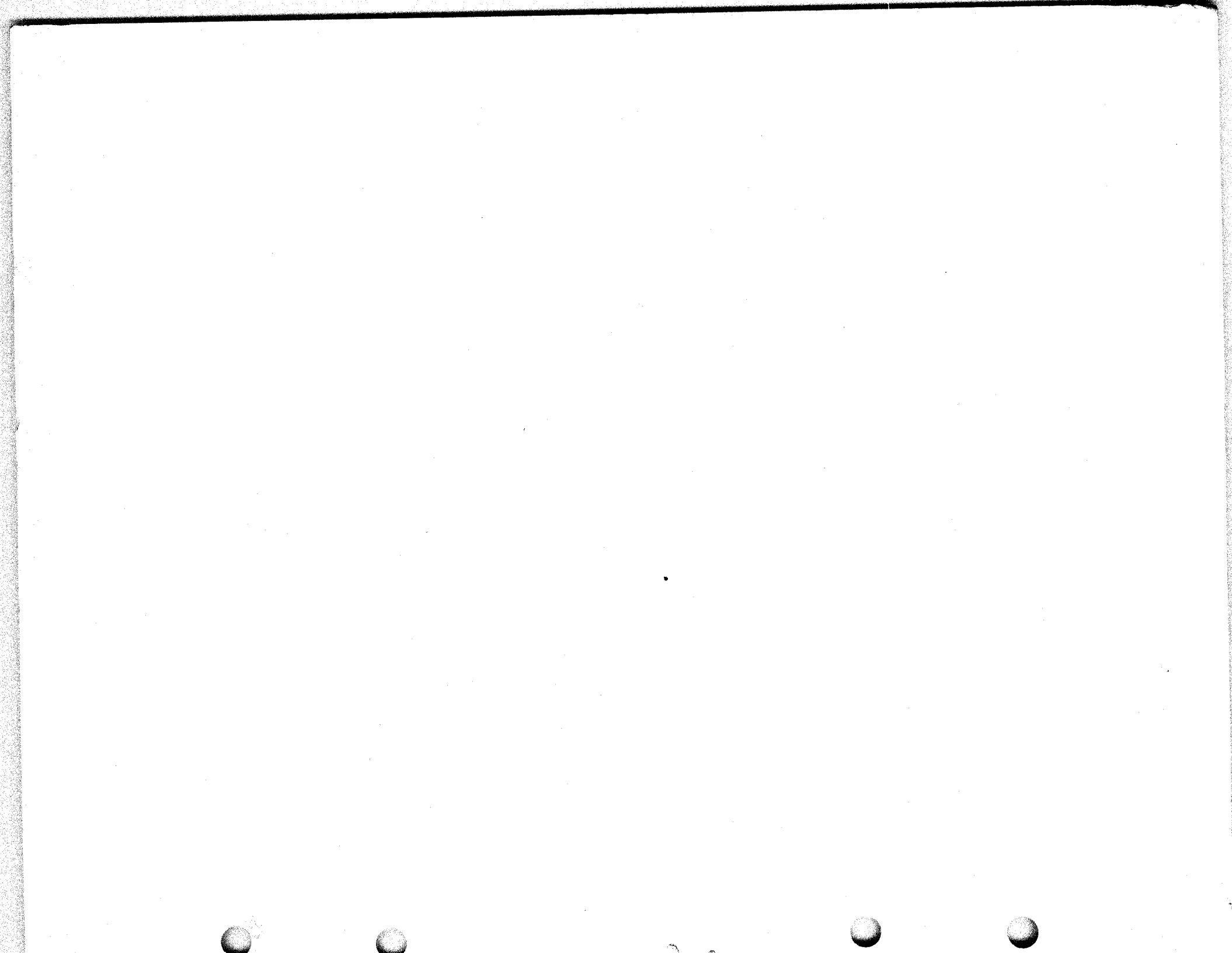
CHANGES IN PARTS  
BULLETINS - MODEL 15 PRINTER

1037, Issue 4, Page 34  
1094, Issue 2, Page 22  
1114, Issue 1, Page 28

The 92227 Line Relay Filter Assembly has been superseded by a 114965 Assembly.



114965 LINE RELAY FILTER (ASSEM.)





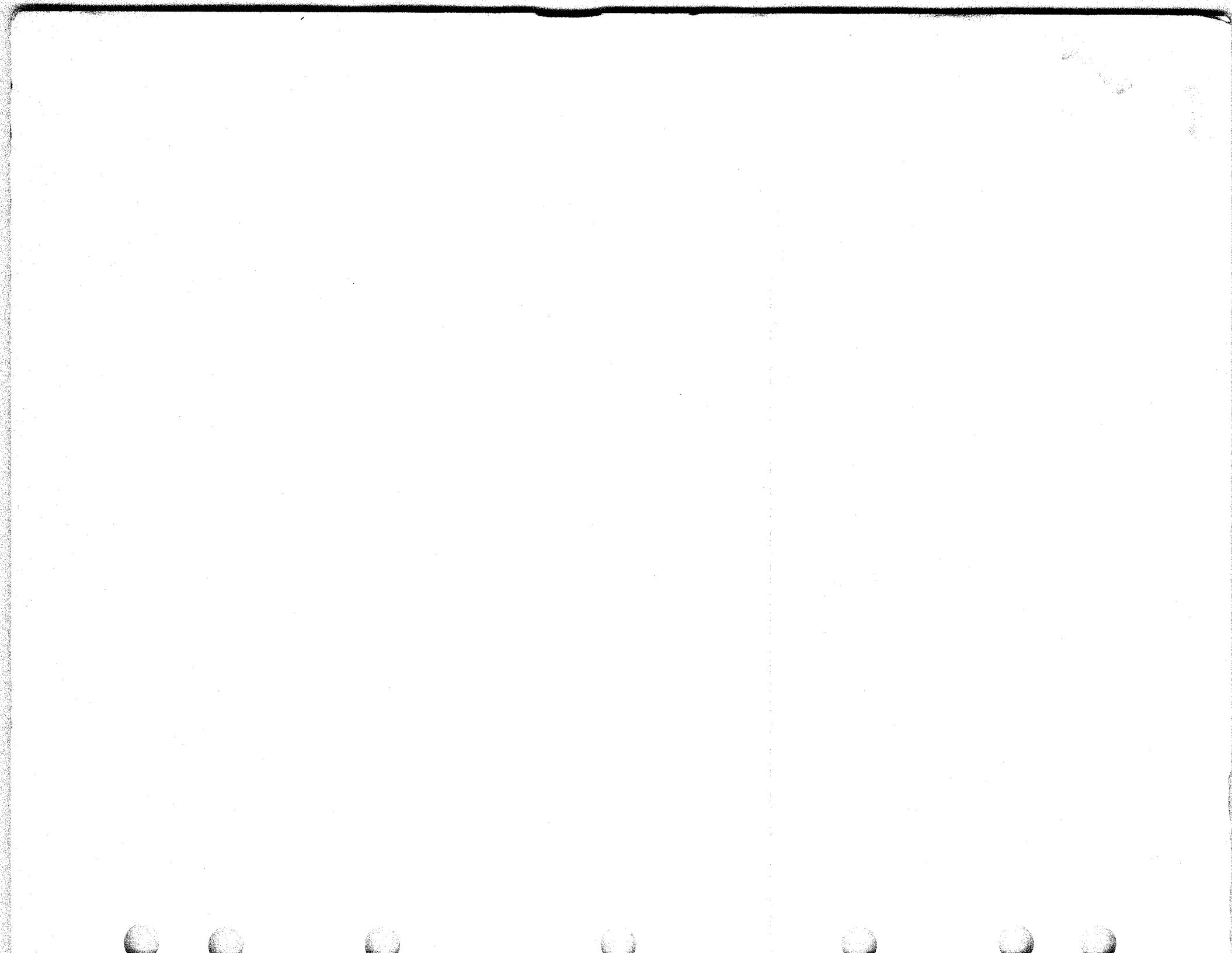
ADDITION TO ADJUSTMENT BULLETINS

- Bulletin 127, Issue 3 - Type Bar Tape Printer (Model 14), Pages 8, 14
- Bulletin 138, Issue 5 - Type Bar Page Printer (Model 15), Pages 21, 27
- Bulletin 147, Issue 2 - Single Magnet Reperforator, Page 7
- Bulletin 155, Issue 1 - Start-Stop Regenerative Repeater, Page 9
- Bulletin 159, Issue 2 - Type Wheel Page Printer (Model 26), Page 6
- Bulletin 160, Issue 1 - Type Bar Page Printer (Model 20), Page 16
- Bulletin 165, Issue 3 - Typing Reperforator (Model 14), Pages 2-5, 2-9
- Bulletin 171, Issue 2 - Typing Reperforator, Page 8
- Bulletin 178, Issue 1 - Reperforator Transmitter Distributor, Page 9
- Bulletin 182, Issue 1 - Multiplex Start-Stop Extensor Set, Page 17
- Bulletin 193, Issue 1 - Reperforator Transmitter Distributor or (Model 14) Page 8
- Bulletin 197, Issue 1 - Multiple Reperforator Set, Page 16
- Bulletin 198, Issue 1 - Type-Wheel Page Printer (Model 27), Page 18
- Bulletin 199, Issue 1 - Simplex-Diplex Converter, Page 2-5
- Bulletin 201, Issue 1 - Sequential Control (SECO) System, Page 5-5
- Bulletin 203, Issue 1 - Reperforator Transmitter (Model 14), Page 2-5
- Bulletin 204, Issue 1 - Sequential Selector (SOTUS), Page 3-6

Trip-Off Screw Adjustment

After the first sentence in this adjustment add the following: (Bulletins and affected pages are listed above.)

While checking the above clearance, take up the play in the stop lever with a screwdriver applied axially adjacent to the spring hole as close to the bearing as possible with thrust in the direction of the trip latch.



ADJUSTMENTS FOR MODEL 15 PRINTERS  
EQUIPPED WITH MECHANICAL MOTOR  
STOP MECHANISM TO OPERATE ON  
"SHIFT-BLANK-STOP"

To be used in conjunction with Teletype Model 15 Printer Adjustment Bulletin 138.

Insert the following adjustments immediately before the INTERMEDIATE LEVER STOP BRACKET ADJUSTMENT:

(1) Set up the "space" combination on the vanes, rotate the main shaft until the function levers rest against the vanes, and loosen the adapter plate or trigger assembly mounting screws (the trigger assembly is part of the Automatic Carriage Return and Line Feed Assembly.) Adjust by moving the left end of the adapter plate or trigger plate in or out so that the blocking surface of the blocking lever clears the front edge of the motor stop function lever by not more than .002", and its rear extension is in contact with the right side of the motor stop function lever. Tighten the adapter plate or trigger assembly mounting screws. With the "Figures H" combination selected and the motor stop function lever blocked by its blocking lever, the motor stop function lever should not block the travel of the printing bail.

(2) This adjustment applies only to units equipped with the Automatic Carriage Return and Line Feed Mechanism. Make the following adjustments (a) and (b) simultaneously.

(a) With the letter "O" combination selected and the main shaft rotated until the printing bail is in its extreme forward position, there should be some clearance, not more than .010", between the carriage return latch bar and the lobe on the carriage return extension of the bail assembly.

(b) With the main shaft in the stop position, there should be at least .005" clearance between the blocking edge of the trigger extension and the front edge of the automatic carriage return and line feed function lever, when the play is taken up to make this clearance a minimum. To adjust, position the trigger guide by means of its elongated mounting holes.

(3) Position the 88969 spring above the blocking lever.

Insert the following adjustments after the SEND-RECEIVE RESET LEVER UPPER ADJUSTING SCREW ADJUSTMENT:

(1) Adjust the height of the 88969 spring so that as the send-receive lever is moved from the "send" to the "receive" position and vice versa, the humps of the spring travel an equal amount above and below the center of the forward end of the blocking lever.

(2) With the send-receive mechanism in the "send" position, set up the "blank" selection and rotate the main shaft until the blank function lever rests against the vanes. See that the intermediate lever is not under the blank function lever. Rotate the "T" lever clockwise until



it touches the blank function lever. See that the extension of the blocking lever rests against the line feed function lever. Bend the left-hand arm of the 88969 spring so that there is a clearance of not more than .004" between the hump on the spring and the forward extension of the blocking lever.

(3) With the printing bail in its extreme rear position rotate the "T" lever clockwise. With the send-receive mechanism in the "send" position, set up the "T" selection on the vanes (5 marking) and rotate the main shaft until the printing bail is in its extreme forward position. See that the blocking edge of the blocking lever is in front of the motor stop function lever, and that the extension of the blocking lever rests against the side of the motor stop function lever. With the universal function lever in contact with the "T" lever, bend the right-hand arm of the 88969 spring so that there is a clearance of not more than .004" between the hump on the spring and the forward extension of the blocking lever.

\* \* \*



ADDITIONS TO BULLETINS

- 127, Issue 3, Adjustments - Model 14 Printer, Page 23
- 138, Issue 5, Adjustments - Typebar Page Printer (Model 15), Page 46
- 147, Issue 2, Adjustments - Non-Typing Reperforator, Page 8
- 155, Issue 1, Description and Adjustments - Start-Stop Regenerative Repeater, Page 9
- 159, Issue 2, Adjustments - Type Wheel Page Printer (Model 26), Page 29
- 160, Issue 1, Adjustments - Typebar Page Printer (Model 20), Page 34
- 165, Issue 3, Adjustments - Typing Reperforator (Model 14), Page 2-18
- 171, Issue 2, Adjustments - Typing Reperforator (Model 14), Page 21
- 178, Issue 1, Adjustments - Reperforator Transmitter (Model 14), Page 49
- 193, Issue 1, Adjustments - Model 14 Reperforator Transmitter, Page 35
- 201, Issue 1, Teletype Sequential Control (SECO) System, Page 5-8
- 203, Issue 1, Adjustments - Reperforator Transmitter (Model 14), Page 2-25
- 204, Issue 1, Description and Adjustments - Sequential Selector, Page 3-9
- \*197, Issue 1, Adjustments - Multiple Reperforator Set, Page 24

1. This correction sheet supersedes EE-661 dated August, 1949, and applies to all bulletins listed above.

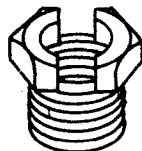
2. Add the information contained in paragraphs 3 and 4 below to the SELECTOR CLUTCH TORQUE requirement.

3. A more convenient method of regulating the selector clutch torque has been devised by the substitution of a 119540 keyed nut, a 122974 capstan nut, and a 122838 spacer for the 72515 nut and 72517 keyed nut on the main shaft. Where these new parts are present, the torque may be regulated by positioning the capstan nut in the proper direction with a screwdriver.

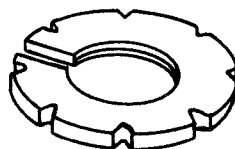
NOTE: The 122974 capstan nut is split and the open ends are offset to insure a tight fit on the 119540 slotted nut. To install the capstan nut the offset ends must be held approximately in line by using a pair of pliers or a clamp. The slotted nut can then be screwed into place. To regulate the selector torque the capstan nut may be positioned with a screwdriver. To prevent the capstan nut from being turned downward against the bearing, the 122838 spacer should be installed between the 119540 slotted nut and the bearing.

4. On units equipped with the 72515 nut and 72517 keyed nut, the selector clutch torque may be adjusted by the use of shims which may be placed between the clutch spring and the 72515 nut. The selector clutch spring must be removed from the shaft in order to apply the shims. Shims are available under the following numbers:

- 96763 Shim (.012" thick)
- 96764 Shim (.016" thick)
- 96765 Shim (.020" thick)



119540 NUT, KEYED



122974 NUT, CAPSTAN



122838 SPACER



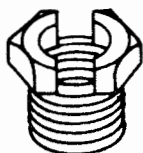


ADDITIONS TO PARTS BULLETINS

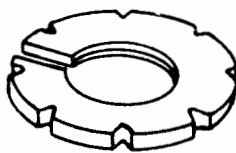
- 1028, Issue 2 - Model 14 Type Bar Tape Printer, Page 5
- 1030, Issue 2 - Model 14 Type Bar Tape Printer, Page 5
- 1031, Issue 3 - Model 14 Type Bar Tape Printer, Page 7
- 1037, Issue 4 - Model 15 Type Bar Page Printer, Page 3
- 1063, Issue 2 - Model 20 Type Bar Page Printer, Page 2
- 1064, Issue 2 - Single Magnet Reperforator (Models 14 and 20 Nontyping), Page 2
- 1072, Issue 2 - Regenerator Unit and Panel, Page 2
- 1074, Issue 2 - Type Wheel Page Printer (Model 26), Page 8
- 1080, Issue 1 - Single Magnet Reperforator (Model 14 Nontyping), Page 2
- 1082, Issue 2 - Typing Reperforator (Model 14), Page 18
- 1088, Issue 2 - Typing Reperforator (Model 14), Page 10
- 1094, Issue 2 - Model 15 Type Bar Page Printer, Page 3
- 1100, Issue 2 - Typing Reperforator (Model 14), Page 8
- 1107, Issue 1 - Nontyping Selector, Page 6
- 1108, Issue 2 - Reperforator Transmitter (Model 14), Page 13
- 1110, Issue 2 - U.S. Army Signal Corps Printers TG-7-A and TG-7-B (Teletype Model 15), Page 3
- 1114, Issue 1 - Model 15 Type Bar Page Printer, Page 3
- 1116, Issue 1 - Nontyping Selector, Page 5
- 1117, Issue 1 - U.S. Army Signal Corps Reperforator Transmitters TG-26-A and TG-27-A (Teletypewriter), Page 7
- 1126, Issue 1 - Reperforator Transmitter Distributor (Model 14), Page 11
- 1130, Issue 1 - Multiple Reperforator, Page 6
- 1141, Issue 1 - Teletype Sequential Control (SECO) System Equipment, Page 13
- 1143, Issue 2 - Sequential Selector, Page 13

1. This correction sheet which supersedes EE-687 covers parts ordering information for the redesigned capstan nut associated with the selector clutch.
2. To permit adjustment of the selector clutch torque without the necessity of removing the selector cam sleeve, a 119540 keyed nut, a 122974 capstan nut, and a 122838 spacer replaces the 72517 nut and 72515 keyed nut.
3. Shims formerly supplied to adjust the selector clutch torque in the field are still available under the following numbers:

96763 Shim (.012" thick)  
96764 Shim (.016" thick)  
96765 Shim (.020" thick)



119540 NUT, KEYED



122974 NUT, CAPSTAN



122838 SPACER

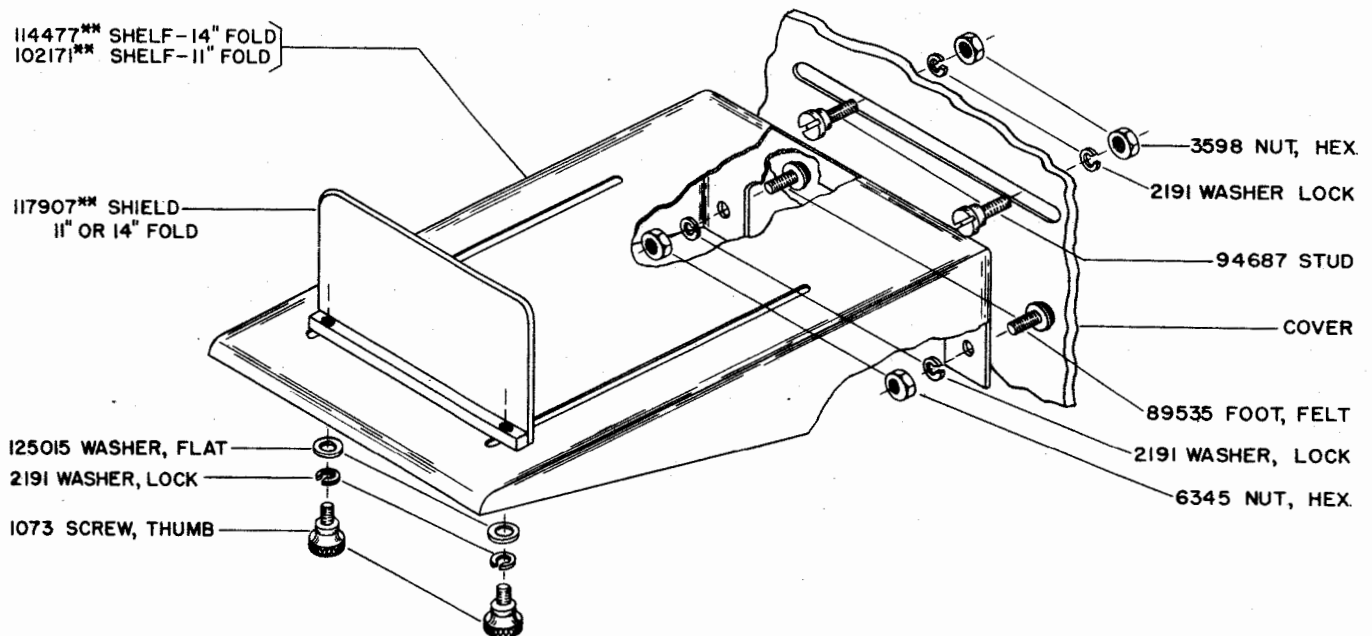


CHANGES AND ADDITIONS  
TO BULLETINS 1037 ISSUE 4, PAGE 50  
AND 1114 ISSUE 1, PAGE 43

Parts Ordering Information For The 115765\*\* or 115766\*\* Form  
Accumulating Shelf Assembly For Use With Sprocket Feed Model 15 Printers.

The 115766\*\* assembly is the same as the 115765\*\* assembly except  
that the 102171\*\* shelf is replaced by a 114477\*\* shelf as indicated in drawing.

The following information replaces corresponding information for the  
94681 Form Accumulating Shelf Assembly shown in the bulletins indicated above.



115765\*\* Form Accumulating Shelf Assembly accommodates forms with 11 inch fold.

115766\*\* Form Accumulating Shelf Assembly accommodates forms with 14 inch fold.

NOTE: The double asterisk (\*\*) represents a two-letter suffix which designates  
the paint finish. The following four standard wrinkle finishes and a  
walnut finish are now available:

AA - Black  
AB - Gray-Green  
AC - Light-Brown

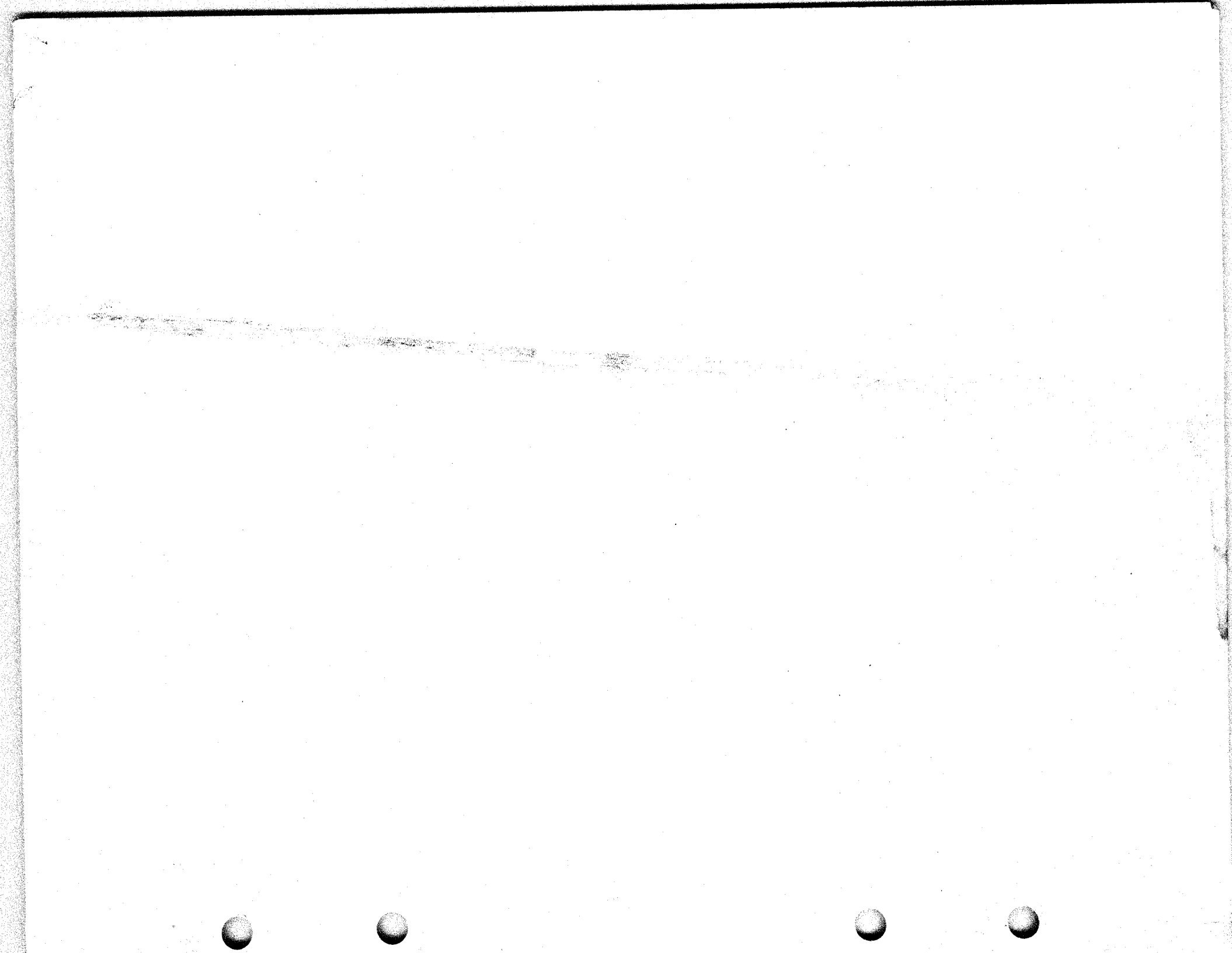
AD - Dark-Brown  
CA - Walnut (for 115765\*\* only)



The following have been renumbered to fit into the new finish designating system:

Old Number	New Number
94681	115765CA
94682	102171CA
94683	117907CA
*102115	117907AC
*114474	115766AA
*114475	114477AA
*114476	117907AA

\*Used with the 115766 Form Accumulating Shelf Assembly only.



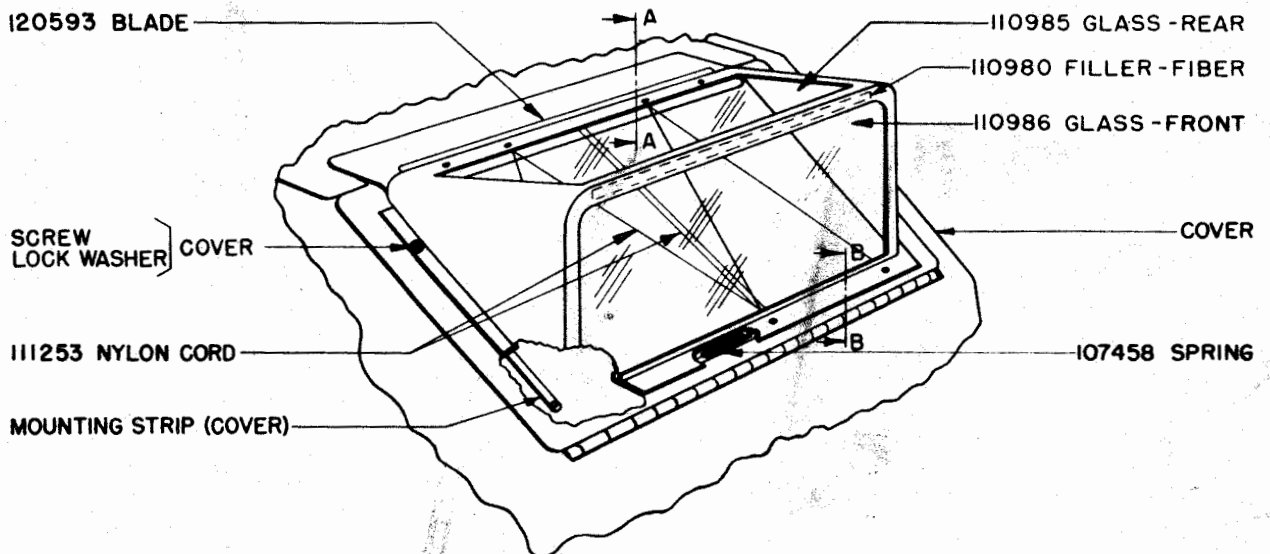
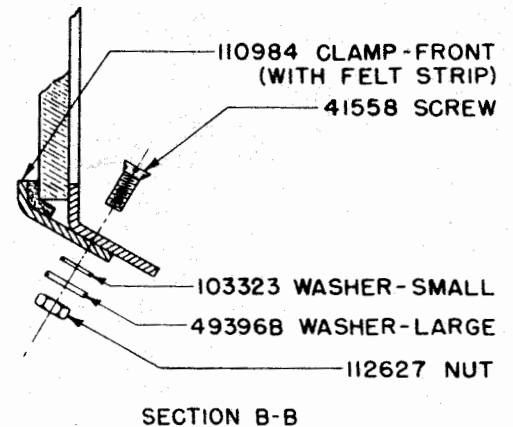
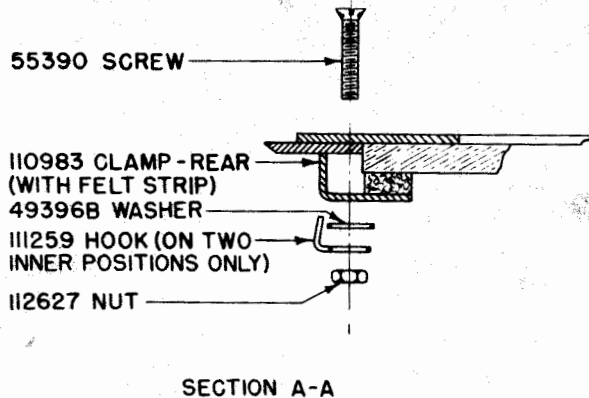
ADDITIONS TO PARTS BULLETINS  
1037, ISSUE 4, MODEL 15 TYPE BAR PAGE PRINTER AND  
1114, ISSUE 1, MODEL 15 TYPE BAR PAGE PRINTER

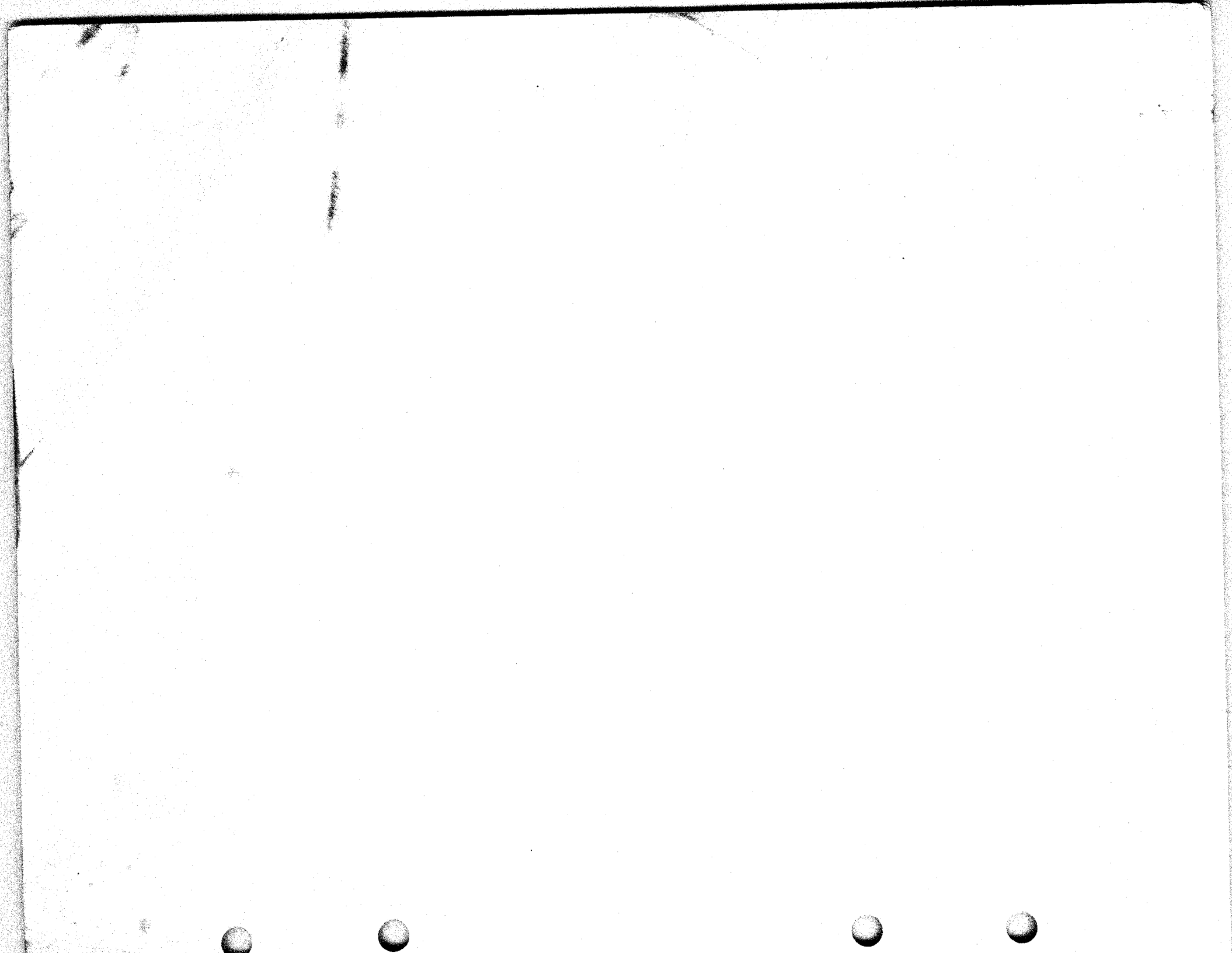
This correction sheet covers parts ordering information for the 115740\*\* Glare Shield Assembly. The 115740\*\* Glare Shield Assembly supersedes the 110948 assembly.

NOTE: The double asterisk (\*\*) designates a two-letter suffix which denotes the paint finish. The following four standard wrinkle finishes and a walnut finish are now available:

AA - Black  
AB - Gray-Green  
AC - Light-Brown

AD - Dark-Brown  
CA - Walnut





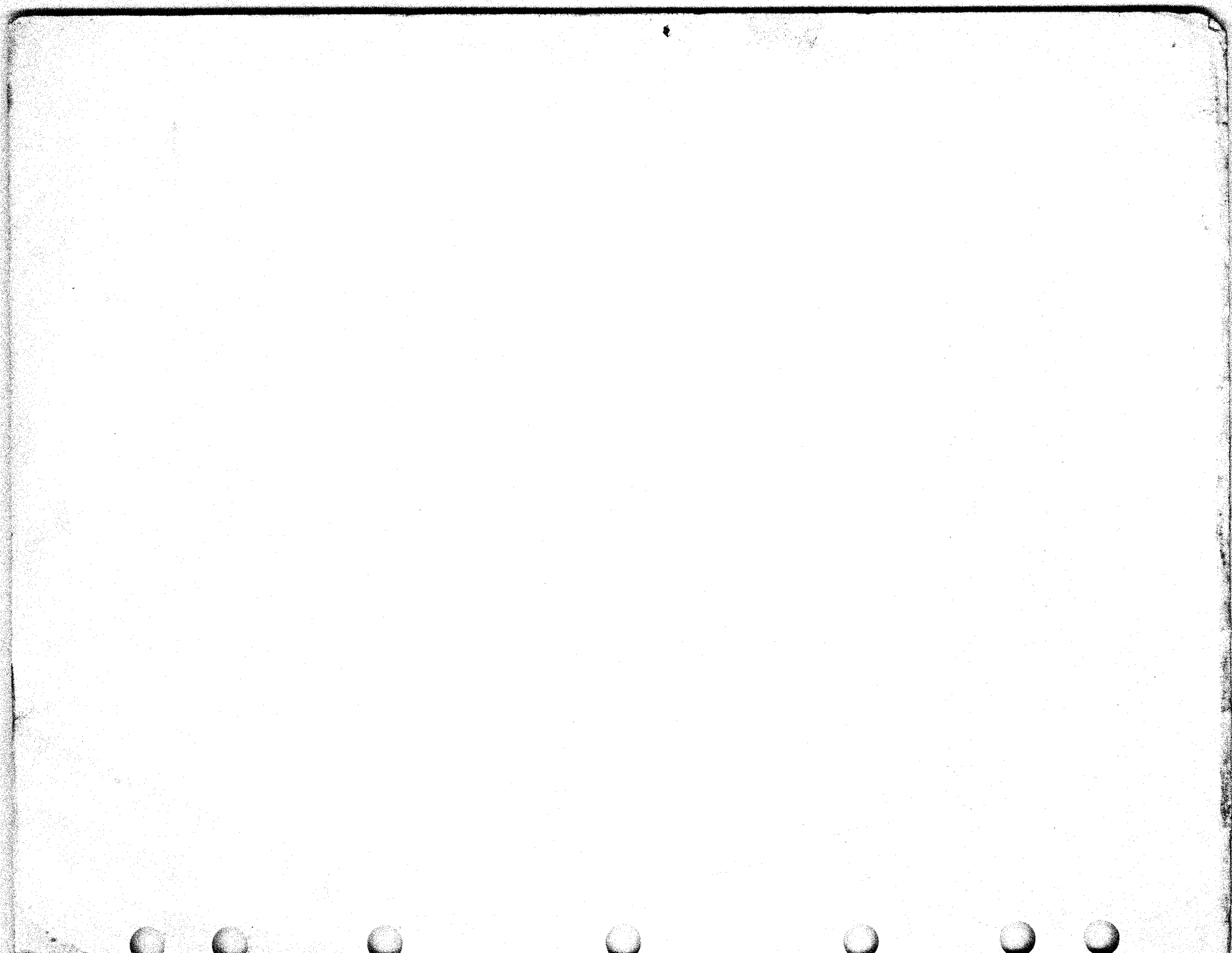


Teletype Corporation  
Chicago, Illinois, U.S.A.

749EE  
Issue 1  
January, 1952

CHANGES AND ADDITIONS TO BULLETINS 1037 (ISSUE 4),  
1094 (ISSUE 2), 1110 (ISSUE 2), AND 1114 (ISSUE 1)  
PARTS - TYPE BAR PAGE PRINTER (MODEL 15)

The 74720 thumb screws used for fastening the typing unit to the base, have been replaced by thumb screws with a captive split lock washer preassembled. The thumb screws retain original number.



CHANGES AND ADDITIONS TO  
BULLETINS 138 (ISSUE 5) AND 160 (ISSUE 1)

ADJUSTMENTS - TYPE BAR PAGE PRINTERS MODEL 15 AND MODEL 20

This correction sheet supersedes correction sheets 583EE, 589EE, and 605EE.

BULLETIN 138, Page 7

BULLETIN 160, Page 5

1. RIBBON REVERSE SHAFTS COLLARS

Change the requirements to read .002" to .010" end play instead of some end play, not more than .008"; and 1/4" to 3/8" instead of 1/4" to 5/16".

BULLETIN 138, Page 10

BULLETIN 160, Page 7

2. RIBBON LOCKOUT BAR (ADJUSTABLE) DETENT SPRING PRESSURE

Change the requirement to read 1-1/4 to 6-1/2 lbs. instead of 1-1/4 to 5 lbs.

BULLETIN 138, Page 12

BULLETIN 160, Page 9

3. MAIN SHAFT JAW CLUTCH SPRING TENSION

Change the tension requirement to read "22 to 30 ozs." instead of "22 to 26 ozs."

4. PRINTING BAIL SHAFT RIGHT BEARING ADJUSTMENT

In bulletin 138, change this adjustment to read as follows; in bulletin 160 add the following after the "SPACING SHAFT LOWER BEARING BRACKET ADJUSTMENT."

"With the printing bail held toward the right, there should be some, not more than .015", clearance between the end of the printing bail casting and the left bearing of the printing bail shaft. To adjust, remove the printing bail spring and position the right bearing by utilizing its elongated mounting holes. Replace the printing bail springs.

BULLETIN 160, Page 12

5. PRINTING BAIL SPRING TENSION ADJUSTMENT (Figure 24)

Change the spring tension requirement to read "6-1/2 to 8-1/2 lbs." instead of "7-1/2 lbs. to 8-1/2 lbs."

BULLETIN 138, Page 15

6. SIXTH VANE

Add the following sentence and note immediately after the above title:  
Place the platen in the Letters position.

NOTE: When checking the .008" to .030" clearance, the forward edge of the sixth vane should be held in its lowermost position but not with sufficient pressure to spring or bend the parts involved

BULLETIN 138, Page 16

7. SELECTOR SEPARATOR PLATE

Change the requirement to read .050" to .060" instead of .045" to .055".  
This applies to both pulling and holding magnet selectors.

Printed in U.S.A.

BULLETIN 160, Page 19

8. FUNCTION BAIL BALDE

Change this adjustment to read as follows:

NOTE: If the shift-unshift mechanism has not been adjusted, it will be necessary to loosen the shift lever bracket mounting screws and move the bracket to its extreme rear position before proceeding with the "Function Bail Blade Adjustment."

With the shift, line feed, and unshift function levers alternately selected and the main shaft rotated until the travel of the function lever bail is blocked by the selected function lever, there should be .004" to .015" clearance between the rear edge of No. 1 vane and the bottom of a notch in the selected function lever. With the unshift on space cutout lever (Figure 37) released from the lower extension of the space function lever, place the platen in shift position, select the space combination, and rotate the main shaft until the function lever bail roller just leaves the cam surface of the space function lever. Under this condition, there should be .004" to .015" clearance between the rear edge of No. 1 vane and the bottom of a notch in the space function lever.

To adjust, select the shift function lever and adjust the right end of the function bail blade by raising or lowering it by means of its elongated mounting holes to secure the specified clearance between the rear edge of the No. 1 vane and the bottom of a notch in the shift function lever. Then select the line feed lever and adjust the left end of the function bail blade by raising or lowering it to secure the specified clearance between the rear edge of the No. 1 vane and the bottom of a notch in the line feed function lever. If like requirements are not met when the unshift and space function levers are selected, it may be necessary to readjust both ends of the function bail blade.

BULLETIN 138, Page 31

BULLETIN 160, Page 20

9. SINGLE DOUBLE LINE FEED DETENT SPRING PRESSURE

Change the requirements to read 1-1/4 to 4 lbs. instead of 1-1/4 to 3-1/4 lbs.

BULLETIN 138, Page 31

BULLETIN 160, Page 21

10. LINE FEED LINK TURNBUCKLE

Change the requirement to read some clearance, not more than .010", instead of some clearance, not more than .015". Replace the second paragraph with the following:

NOTE: Do not take up the play in the line feed mechanism when checking or making this adjustment. To check the "some clearance" requirement, engage the line feed pawl with a spring hook close to the spring post and lift the line feed pawl just above the top or point of the tooth. Release the line feed pawl off the spring hook. If the pawl fully returns (i.e. bottoms in) to the hollow of the teeth, then the "some clearance" requirement shall be considered satisfied.

To obtain this requirement, place the typing unit on its right side, loosen the line feed turnbuckle lock nuts, and adjust the length of the line feed vertical link by means of its turnbuckle.

BULLETIN 138, Page 33

BULLETIN 160, Page 23

11. PRESSURE ROLLER RELEASE CAMS

Change this adjustment to read as follows:

With the pressure roller release shaft arm in its rear position, the camming surfaces should line up with the release levers. With all the travel of the front pressure rollers taken up manually in a downward direction, (so that the rear pressure rollers are resting against the platen), there should be at least .060" between the front pressure rollers and the platen. With all the travel of the rear pressure rollers taken up manually in a downward direction, (so that the front pressure rollers are resting against the platen), there should be at least .060" between the rear pressure rollers and the platen. To adjust, position the cams on the release shaft by means of their set screws.

BULLETIN 138, Page 35

12. FRONT SPACING ESCAPEMENT PAWL

The following adjustment applies when the 124625 spacing escapement pawl assembly is used:

Rotate the main shaft until the printing bail is in its rearmost position. Disengage the rear spacing escapement pawl from the spacing escapement ratchet and rotate the ratchet assembly, until a ratchet tooth is in line with the toe of the front spacing escapement pawl extension. Adjust the extension by means of its clamping screw so that there is from .040" to .060" clearance between the top of the ratchet tooth and the toe of the extension.

BULLETIN 138, Page 38

BULLETIN 160, Page 27

13. CARRIAGE RETURN OPERATING (CLUTCH) LEVER STOP SCREW

Change this adjustment to read as follows:

With the typing unit in its normal upright position, select the "Carriage Return" combination and rotate the main shaft until the Carriage Return function lever just trips the carriage return latch bar off its latch. There should be from .002" to .020" clearance between the lock bar shoulder and the inner edge of the lock bar latching lever. When making this adjustment all the play in the mechanism should be taken up in a direction to make the clearance a minimum. This can best be done by applying the hook end of an 8 oz. scale on the lock bar and by pulling and holding the lock bar outward with a tension of 6 ounces. To adjust, set the height of the carriage return operating lever stop screw.

14. DASHPOT LEVER SPRING TENSION

Change the requirement to read "16 to 22 ozs." instead of "18 to 24 ozs."

BULLETIN 138, Page 40

BULLETIN 160, Page 29

15. SPACING RACK

Change the second sentence to read as follows:

To adjust, remove the type bar carriage draw strap, loosen the spacing rack mounting screws and position the rack toward the front or rear to provide some backlash, not more than .006", between the rack and the spacing gear. Adjust for this backlash with the carriage in its extreme left and right-hand positions and also in its center position. Retighten screws and replace draw strap.

BULLETIN 160, Page 29

16. PLATEN FRICTION ASSEMBLY (Figure 50B)

Change the requirement in this adjustment to read "5 to 9 ozs." instead of "6 to 8 ozs."

BULLETIN 160, Page 33

17. RIBBON LOCKOUT BAR (Figure 54)

Change this adjustment to read as follows:

NOTE: This adjustment applies only to those printers equipped with the adjustable ribbon lockout bar.

Hold the ribbon carrier down and move the ribbon lockout bar to the left against its stop. The ribbon should be locked sufficiently below the printing line to prevent printing of any portion of the characters. To adjust, position the lockout bar extension by means of its adjusting screws so that the ribbon oscillator just fails to operate when the lockout bar is in its operated (extreme left) position and the platen is in the LETTERS position.

With the ribbon lockout bar in its operated position, hook a 12 lb. scale over the end of the ribbon lockout bar and pull directly in line with the bar. It should not require more than 5 lbs. to move the lockout bar to its unoperated position.

BULLETIN 138, Page 42

18. RIGHT MOTOR STOP CONTACT

Change this adjustment to read as follows:

- (1) With the printing bail in its extreme rear position, hold the selector armature in the MARKING (operated) position and engage the inner motor stop pawl with its latch. The contact spring mounting surface of the right contact spring bracket should be parallel to the top edge of the send-receive mechanism plate (gauge by eye). There should be either some clearance, not more than .010", between the insulated end of the light contact spring of the right motor stop contacts and the upper end of the contact operating lever, or, there should be not more than 1/2 oz. pressure against the upper end of the contact operating lever from the insulated end of this spring if the insulated end of the spring is bearing against the operating lever. To adjust, position the right contact spring bracket by means of its mounting holes, and bend (if necessary) the light contact spring.

NOTE: When adjusting make certain that the heavy contact spring does not bear against the light spring.

- (2) With the selector armature in the SPACING (unoperated) position and the outer motor stop pawl engaged with its latch, there should be a gap of .012" to .020" between the contact points. To adjust, bend the heavy spring of the right motor stop contacts.

#### 19. LEFT MOTOR STOP CONTACT

Change this adjustment to read as follows:

- (1) With the printing bail in its extreme rear position, there should be either some clearance, not more than .010" between the insulated end of the light contact spring of the left motor stop contacts and the lobe on the front extension of the motor stop function lever or, not more than 1/2 oz. pressure against this lobe if the insulated end of the light contact spring is bearing against it. To adjust bend the light contact spring.

NOTE: When adjusting make certain that the heavy spring does not bear against the light spring.

- (2) With the motor stop function lever selected and the main shaft rotated until the right-hand motor stop contact is just at the point of opening, the left-hand motor stop contact should just close. With the LETTERS combination selected and the main shaft rotated until the printing bail is in its extreme forward position, there should be at least a .010" gap between the points of the left-hand motor stop contacts. To adjust, bend the heavy contact spring of the left-hand motor stop contact.

BULLETIN 138, Page 48

#### 20. TRIP-OFF PAWL STOP PLATE ADJUSTMENT (Figure 74)

Change this adjustment to read as follows:

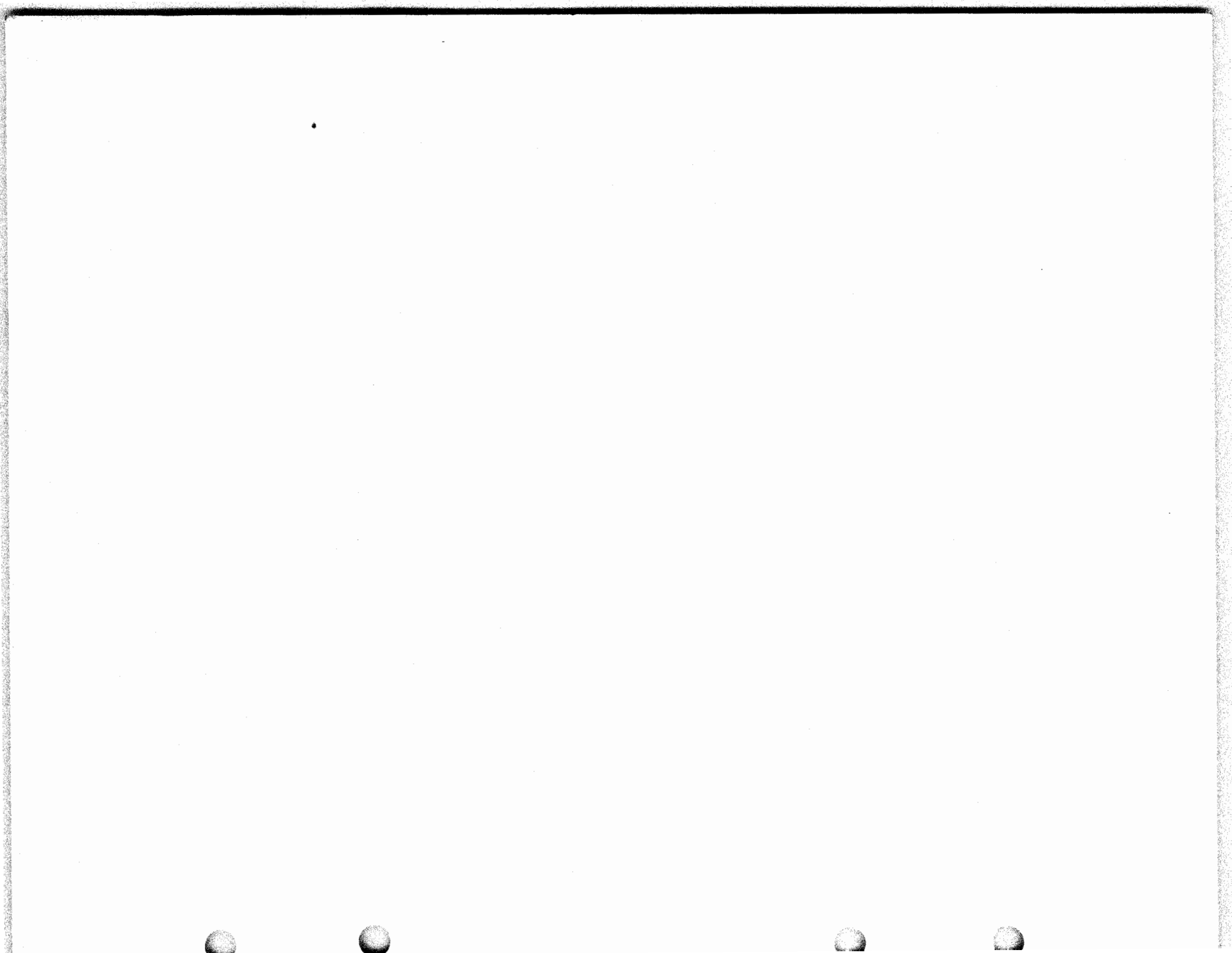
"There should be .040" to .060" clearance between all keylevers and the universal bar (.040" to .070" between the spacer keylever and the universal bar) when the trip-off pawl is resting against the end of the stop plate. To adjust, position the trip-off pawl stop plate by means of its elongated mounting holes."

BULLETIN 138, Page 64

#### 21. CONTACT PAWL SPRING TENSION (Figure 99)

Change the spring tension requirement to read "1-1/2 to 3 ozs." instead of "3/4 to 1-1/2 ozs."

\* \* \*





CHANGES IN ADJUSTMENT BULLETINS

- 127, Issue 3 - Model 14 Type Bar Tape Printer, Page 3
- 138, Issue 5 - Model 15 Type Bar Page Printer, Page 11
- 147, Issue 2 - Single Magnet Reperforator, Page 7
- 160, Issue 1 - Model 20 Type Bar Page Printer, Page 9
- 165, Issue 3 - Model 14 Typing Reperforator, Page 2-2
- 171, Issue 2 - Model 14 Typing Reperforator, Page 3
- 178, Issue 1 - Model 14 Reperforator Transmitter, Page 4
- 193, Issue 1 - Model 14 Reperforator Transmitter, Page 2
- 197, Issue 1 - Multiple Reperforator Set, Page 10
- 203, Issue 1 - Model 14 Reperforator Transmitter, Page 2-1

In the bulletins listed above change the following adjustment to read as follows:

MAIN SHAFT CLUTCH THROWOUT LEVER ADJUSTMENT

With the motor operating, open and close the signal line and then stop the motor. There should be from .010" to .020" clearance between the teeth of the two clutch members. Adjust the clutch throw-out lever by means of its pilot screws to obtain this clearance. After adjusting, the lever should be free, with not more than .002" end play.

- Bulletin 127, Page 25
- Bulletin 165, Page 2-22

CONTACT BRACKET ADJUSTMENT

In this adjustment the requirement .010" to .020" should be changed to: some clearance not more than .010".

Change appropriate figure accordingly.

- BULLETIN 127, Page 29
- BULLETIN 165, Page 2-24

- Bulletin 127 Tape Lever Spring Tension
- Bulletin 165 Tape-Out Lever Spring Tension

Add the following note to these adjustments:

NOTE

The spring tension requirement on units equipped with the tape-out contact assembly should be 6 to 8 ozs.

\* \* \*



Teletype Corporation  
Chicago, Illinois, U.S.A.

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CHANGES IN ADJUSTMENT BULLETINS

138, Issue 5, Model 15 Page Printer, Page 34  
160, Issue 1, Model 20 Page Printer, Page 23

PAPER FINGER SHAFT SPRING TENSION

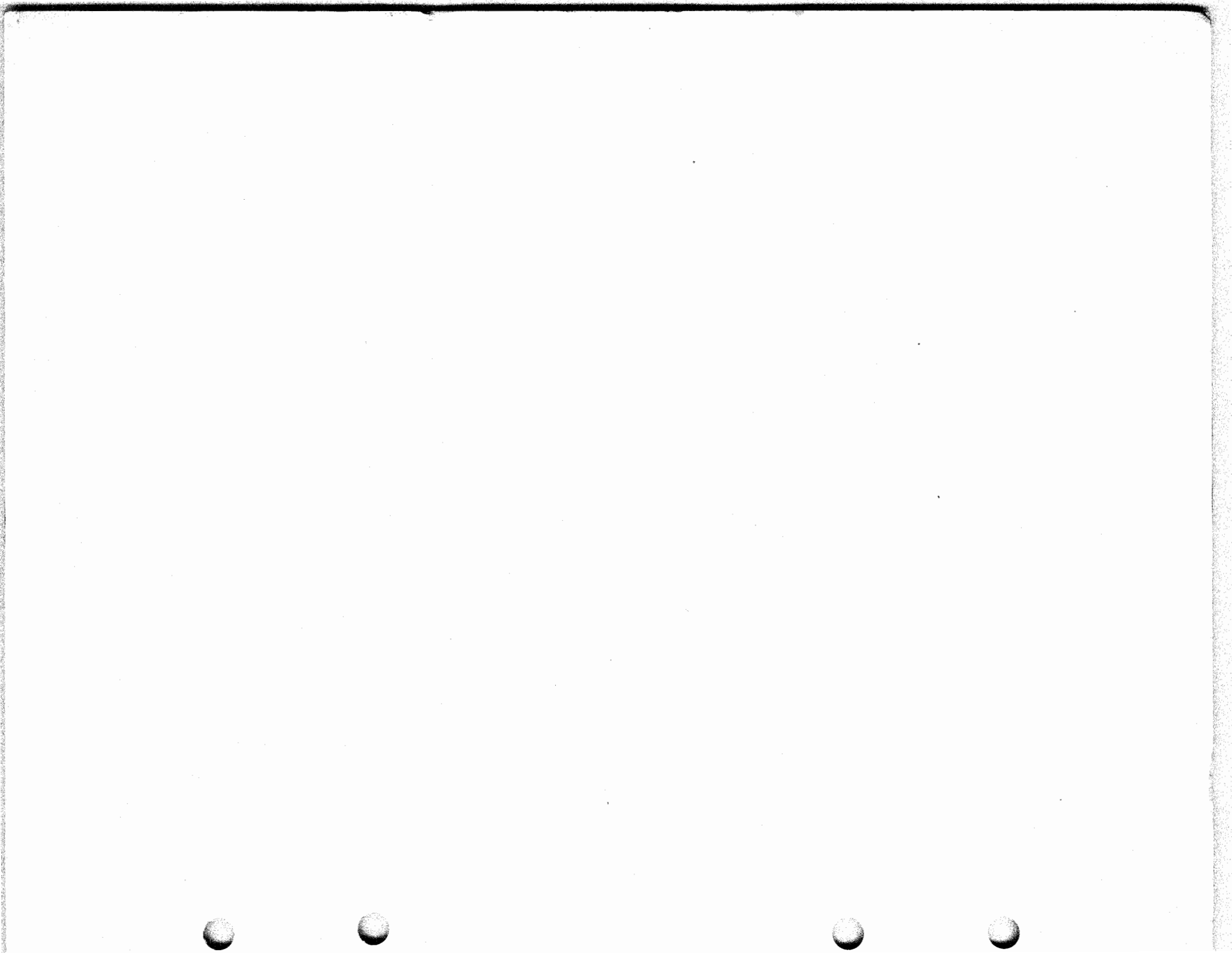
In the above referenced bulletins change the paper finger shaft spring tension requirement to read as follows:

Apply a 32 oz. scale to the paper finger shaft stop arm, between stop post and spring and as close as possible to the stop post, and pull in line with the spring. It should require from 16 to 22 ozs. to start the stop arm moving.

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Teletype Corporation  
Chicago, Illinois, U.S.A.

Correction Sheet 774EE  
Issue 1  
June, 1952

CHANGES AND ADDITIONS  
TO BULLETINS 1037B ISSUE 4, 1094B ISSUE 2, AND 1114B ISSUE 1  
PARTS - TYPE BAR PAGE PRINTER  
(MODEL 15)

Bulletin 1037B, Page 22  
Bulletin 1094B, Page 19  
Bulletin 1114B, Page 23

In order to obtain a more flexible adjustment, a 107485 screw  
(eccentric - shoulder) replaces the 6800 screw (shoulder).

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