

28 NONTYPING REPERFORATOR UNIT

ADJUSTMENTS

1. GENERAL

1.001 This addendum, which supplements Section 573-119-700, Issue 4, is issued to incorporate engineering changes to the backspace mechanism.

1.002 Insert the attached pages in accordance with the filing instructions above. Arrows in the margin indicate changes and additions.

Attached:

Page 3, dated May 1966, revised
Page 4, dated May 1966, reissued
Page 65, dated May 1966, reissued
Page 66, dated May 1966, revised
Page 67, dated May 1966, revised
Page 68, dated May 1966, reissued
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Page 70, dated May 1966, reissued

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1. GENERAL

1.01 This section contains the requirements and adjustments for the 28 nontyping reperforator. The adjustments and requirements apply to the five-level and six-level (including Bell 20-type) reperforator units. In cases where a specific requirement and/or adjustment is applicable to a six-level unit only, the text will so indicate.

1.02 This section is reissued to include authorized revisions and additions to bring the section up to date. Since this is a general revision, marginal arrows are omitted.

1.03 References to left or right, front or rear, and up or down refer to the apparatus in its normal operating position as viewed from the front, with the selector mechanism to the right and the punch mechanism to the left.

1.04 When a requirement calls for the clutch to be disengaged, the clutch shoe lever must be fully latched between its trip lever and latch lever so that the clutch shoes release their tension on the clutch drum. When engaged, the clutch shoe lever is unlatched and the clutch shoes are wedged firmly against the clutch drum.

Note: When the main shaft is rotated by hand, the clutches do not fully disengage upon reaching their stop positions. In order to relieve the drag on the clutches and permit the main shaft to rotate freely, use a screwdriver to apply pressure on the stop lug of each clutch disc to cause it to engage the latch lever and thus disengage the internal expansion clutch.

1.05 To manually operate the nontyping reperforator, proceed as follows:

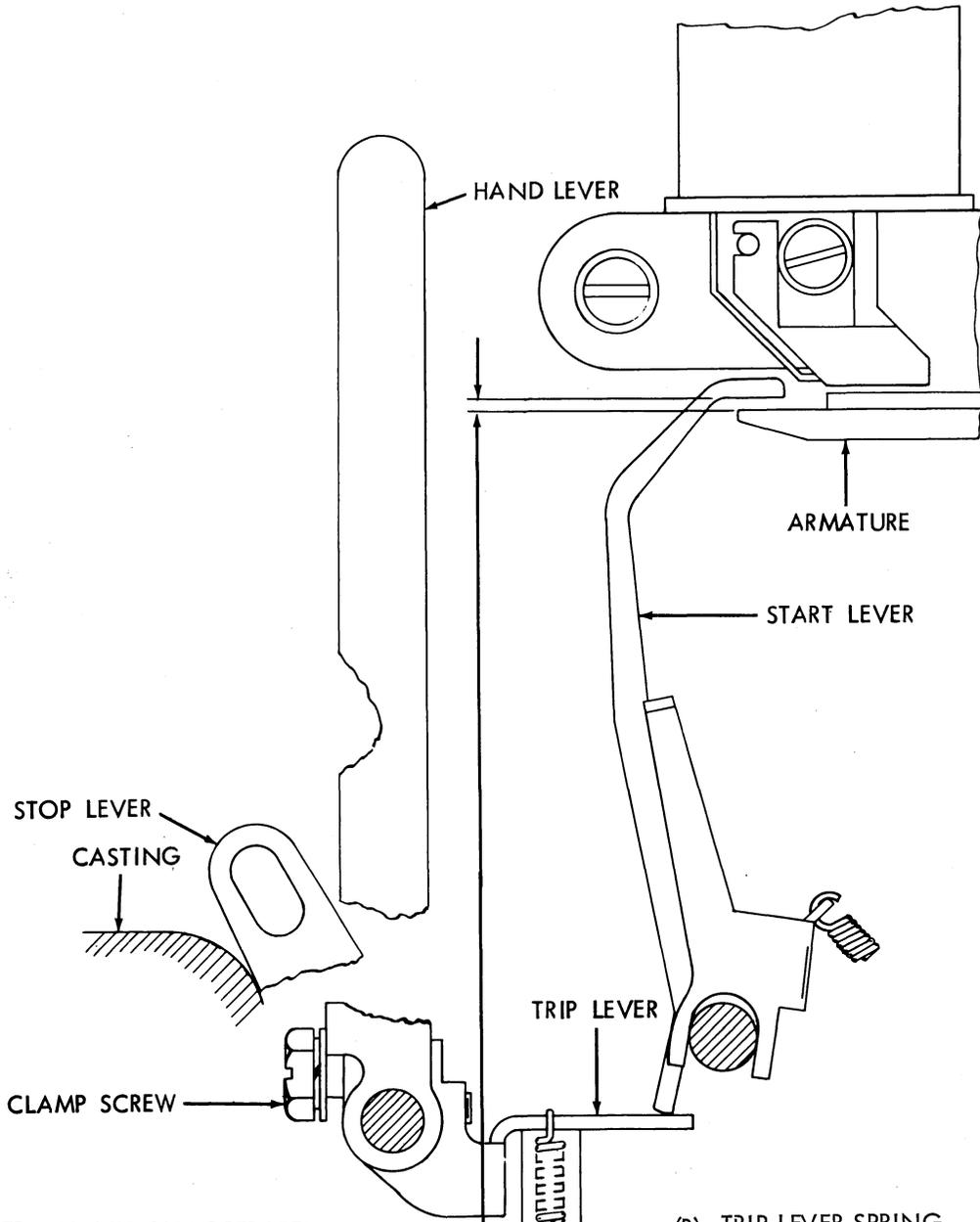
- (1) Attach the TP312709 armature clip to the selector magnet armature by carefully placing the spring loop over the magnet terminal insulator and pressing down to engage the hook of the clip on the underside of the armature and releasing. The spring tension of the armature clip will hold the selector armature in the marking (attracted) position.
- (2) Rotate the main shaft in a counterclockwise direction until all the clutches are brought to their disengaged position.
- (3) Fully disengage all clutches in accordance with 1.04, Note.
- (4) Release the selector magnet armature momentarily to permit the selector clutch to engage.
- (5) Rotate the main shaft slowly until all the push levers have fallen to the left of their selector levers.
- (6) Strip the push levers from their selector levers, which are spacing in the code combination of the character function that is being selected, and allow the push levers to move to the right.
- (7) The push levers and the selector levers move in succession starting with the inner lever No. 1 to the outer lever No. 5.
- (8) Continue to rotate the main shaft until all operations initiated by the selector action clear through the unit.

1.06 Where a nontyping reperforator is used as a component of the 28 reperforator-transmitter unit or the 28 reperforator-transmitter base, refer to the applicable adjustment sections for additional requirements or adjustments.

Note: On units equipped with two-cycle cams, both halves of the cam sleeve should be checked.

1.07 The figures in this section show the adjusting tolerances, positions of parts, and spring tensions. The illustrations are arranged so that the adjustments are in the

3.21 Manually Operated Interfering Letters Tape Feed-Out Mechanism



(A) TRIP LEVER - MANUALLY OPERATED TO CHECK
 WITH UNIT IN STOP POSITION, TRIP SELECTOR CLUTCH BY POSITIONING HAND LEVER TO LEFT UNTIL STOP LEVER RESTS AGAINST CASTING.

(B) TRIP LEVER SPRING REQUIREMENT
 MIN. 3/4 OZS.
 MAX. 2 OZS.
 TO PULL SPRING TO ITS INSTALLED LENGTH.

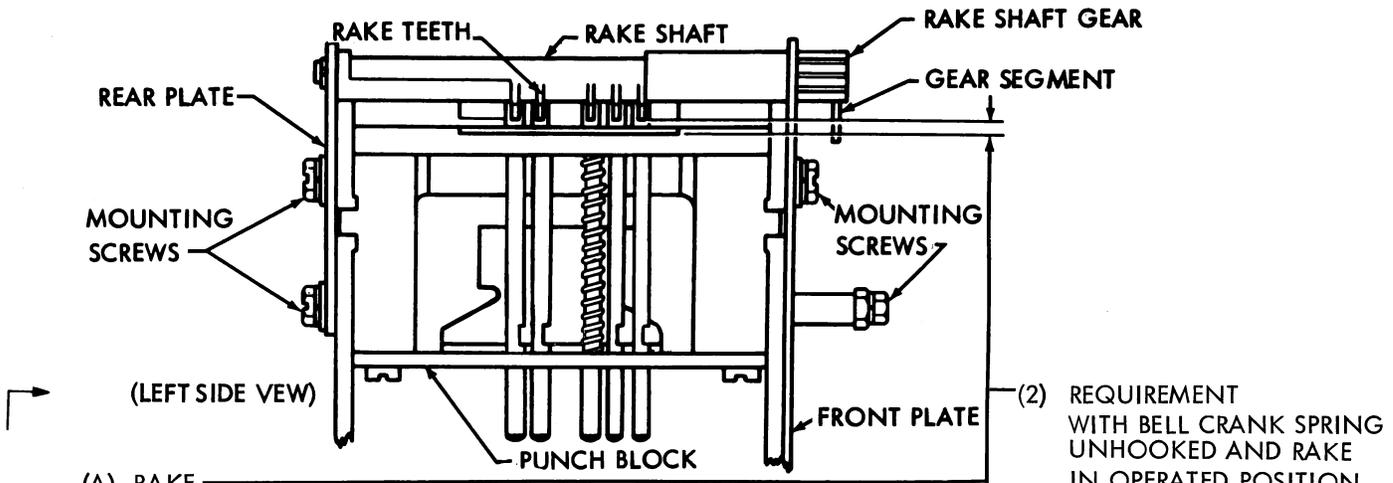
REQUIREMENT

- (1) MIN. SOME---MAX. 0.015 INCH BETWEEN START LEVER AND ARMATURE AT POINT OF MIN. CLEARANCE
- (2) START LEVER ENGAGING APPROXIMATE CENTER OF TRIP LEVER'S OPERATING SURFACE.

TO ADJUST

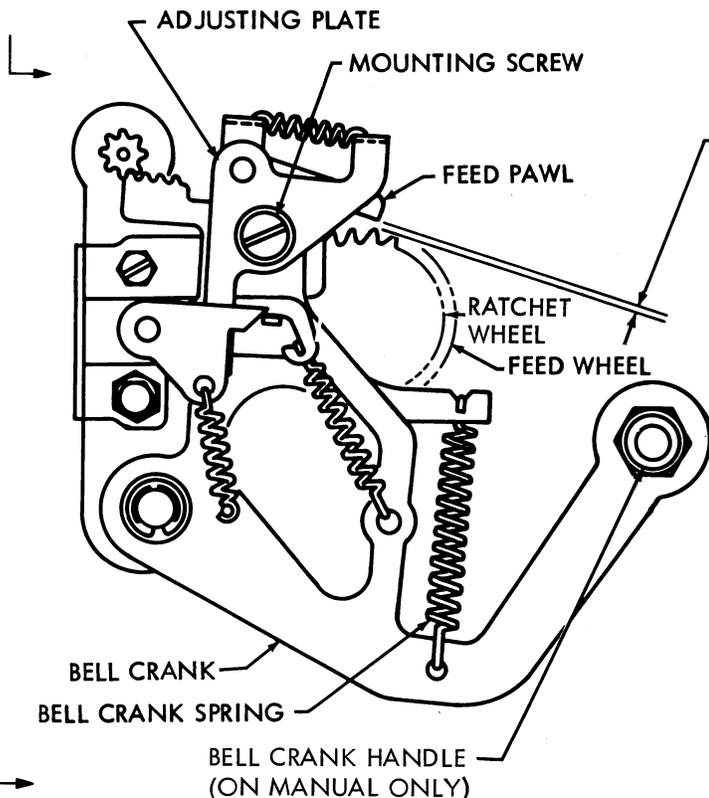
WITH CLAMP SCREW LOOSENED, POSITION TRIP LEVER ON SHAFT.

→ 3.22 Manual and Power Drive Backspace Mechanism for Chadless Tape



(A) RAKE
 (1) REQUIREMENT WITH ROTATIONAL PLAY TAKEN UP TO LEFT, BOTTOM SURFACE OF RAKE TEETH SHOULD BE WITHIN 0.040 INCH OF THE SAME VERTICAL PLANE AS LEFT SIDE OF PUNCH BLOCK.
 TO ADJUST REMOVE TWO MOUNTING SCREWS FROM REAR PLATE. POSITION RAKE SHAFT GEAR IN RELATION TO GEAR SEGMENT. REPLACE MOUNTING SCREWS.

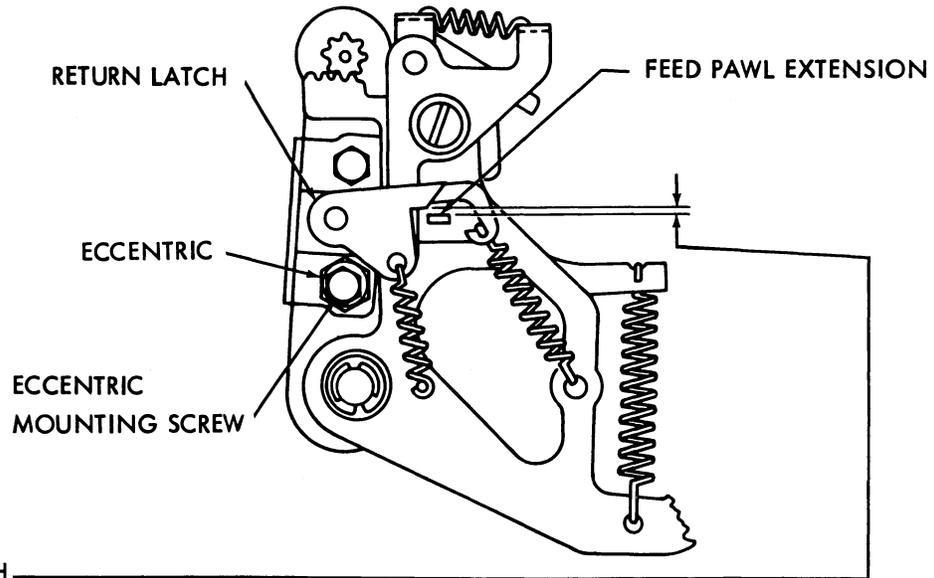
(2) REQUIREMENT WITH BELL CRANK SPRING UNHOOKED AND RAKE IN OPERATED POSITION, CLEARANCE BETWEEN BOTTOM OF THE RAKE TEETH AND THE LOWER SURFACE OF THE TAPE SLOT:
 MIN. 0.007 INCH---MAX. 0.011 INCH (CHECK AT NO. 1 AND 5 CODE POSITION.)
 TO ADJUST LOOSEN THE FOUR PUNCH BLOCK MOUNTING SCREWS FRICTION TIGHT, POSITION THE RAKE MOUNTING PLATE AND BELL CRANK MOUNTING PLATE SO THAT THE FRONT EDGE OF BOTH PLATES IS APPROXIMATELY IN LINE WITH THE VERTICAL PLANE OF THE PUNCH BLOCK. WITH THE RAKE IN THE OPERATED POSITION (BELL CRANK IN MAXIMUM DOWNWARD POSITION) MOVE THE RAKE UP OR DOWN TO MEET CLEARANCE REQUIREMENT. TIGHTEN SCREWS AND REPLACE BELL CRANK SPRING.



(B) FEED PAWL CLEARANCE
 REQUIREMENT (PRELIMINARY)
 (1) WITH BACKSPACE BELL CRANK ROTATED CLOCKWISE, BACKSPACE FEED PAWL SHOULD MISS FIRST TOOTH BY A CLEARANCE OF:
 MIN. 0.006 INCH
 MAX. 0.040 INCH
 REQUIREMENT (FINAL)
 (2) BACKSPACE FEED PAWL SHOULD MISS FIRST TOOTH AND ENGAGE SECOND TOOTH BY AT LEAST 1/2 OF RIGHT ENGAGING SURFACE OF FEED PAWL (AS GAUGED BY EYE) WHEN THE FEED PAWL FIRST CONTACTS RATCHET TOOTH.
 TO ADJUST POSITION ADJUSTING PLATE WITH MOUNTING SCREW FRICTION TIGHT.

(CHECK WITH FEED WHEEL SHAFT OIL HOLE IN THE UPPERMOST POSITION AND RECHECK EACH 90 DEGREES ABOUT PERIPHERY OF FEED WHEEL.)

3.23 Manual and Power Drive Backspace Mechanism for Chadless Tape - Continued



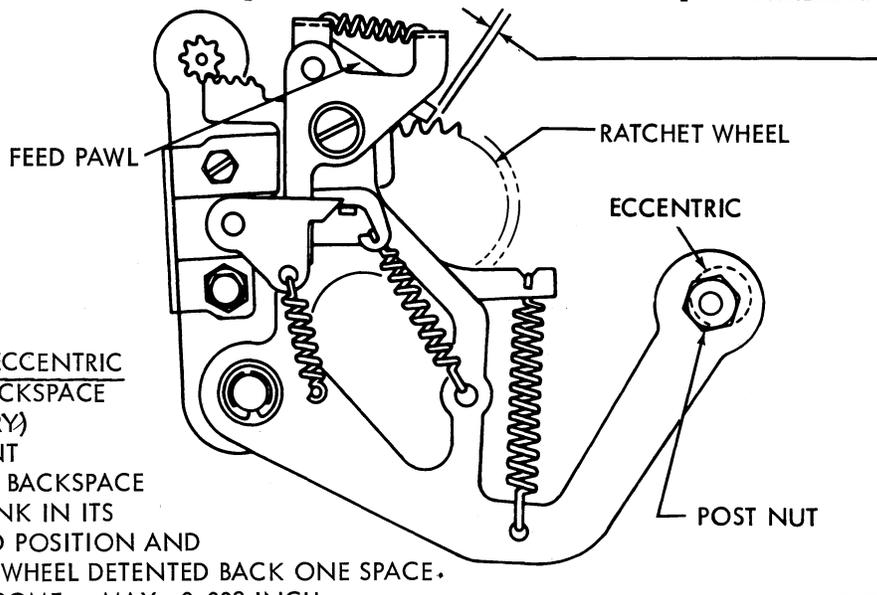
(A) RETURN LATCH REQUIREMENT

BACKSPACE MECHANISM IN UNOPERATED POSITION.
 CLEARANCE BETWEEN RETURN LATCH AND FEED PAWL EXTENSION.
 MIN. 0.004 INCH
 MAX. 0.020 INCH

TO ADJUST

ADJUST ECCENTRIC WITH MOUNTING SCREW FRICTION TIGHT.

3.24 Manual and Power Drive Backspace Mechanism for Chadless Tape - Continued



(B) FEED PAWL ECCENTRIC MANUAL BACKSPACE (PRELIMINARY) REQUIREMENT

WITH THE BACKSPACE BELL CRANK IN ITS OPERATED POSITION AND THE FEED WHEEL DETENTED BACK ONE SPACE.
 MIN. SOME---MAX. 0.003 INCH

CLEARANCE BETWEEN THE FEED WHEEL RATCHET TOOTH AND THE BACKSPACE FEED PAWL. POWER DRIVE BACKSPACE

WITH THE BACKSPACE BELL CRANK IN ITS OPERATED POSITION, THE HIGH SIDE OF THE ECCENTRIC SHOULD BE IN ITS UPPERMOST POSITION.

TO ADJUST

LOOSEN THE NUT POST (FRICTION TIGHT) AND ROTATE ECCENTRIC WITH AN ALLEN WRENCH. TIGHTEN THE NUT POST.

3.25 Power Drive Backspace Mechanism for Chadless Tape

ARMATURE HINGE (EARLIER DESIGN)

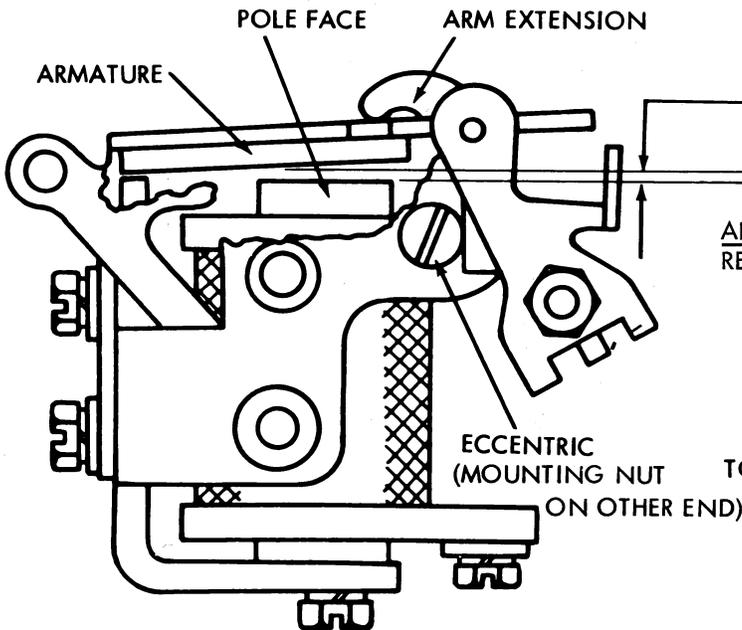
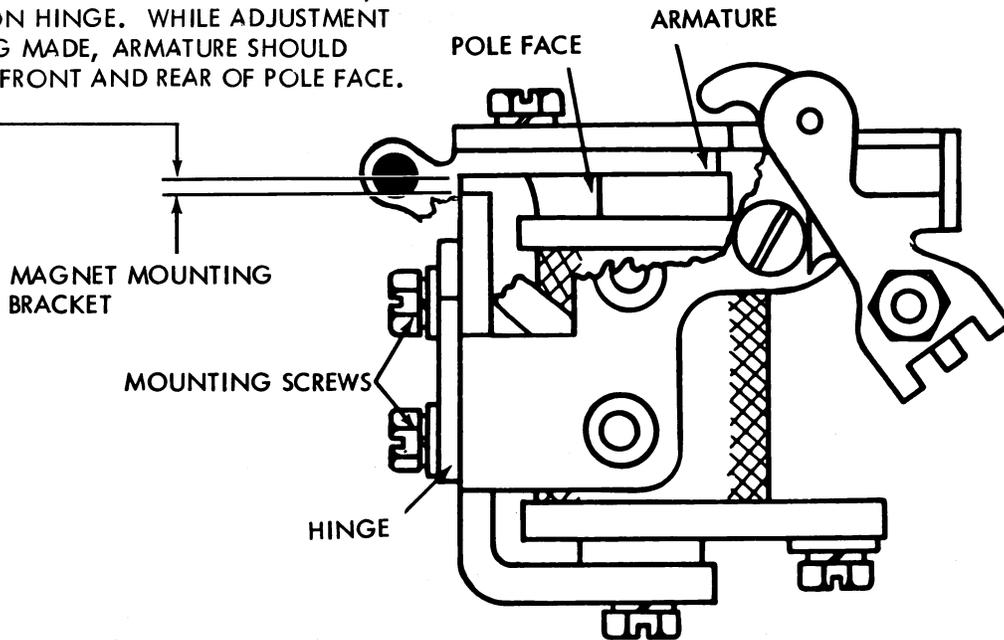
REQUIREMENT

WITH ARMATURE HELD AGAINST POLE FACE (ARMATURE BAIL SPRING UNHOOKED)

MIN. SOME --- MAX. 0.004 INCH

BETWEEN ARMATURE AND MAGNET MOUNTING BRACKET WITH PLAY TAKEN UP FOR MINIMUM. TO ADJUST

WITH MOUNTING SCREWS LOOSENED, POSITION HINGE. WHILE ADJUSTMENT IS BEING MADE, ARMATURE SHOULD TOUCH FRONT AND REAR OF POLE FACE.



ARMATURE UPSTOP* (EARLIER DESIGN)

REQUIREMENT

ARMATURE IN UNOPERATED POSITION. GAP BETWEEN ARMATURE AND POLE FACE

MIN. 0.025 INCH.

MAX. 0.030 INCH.

AT CLOSEST POINT.

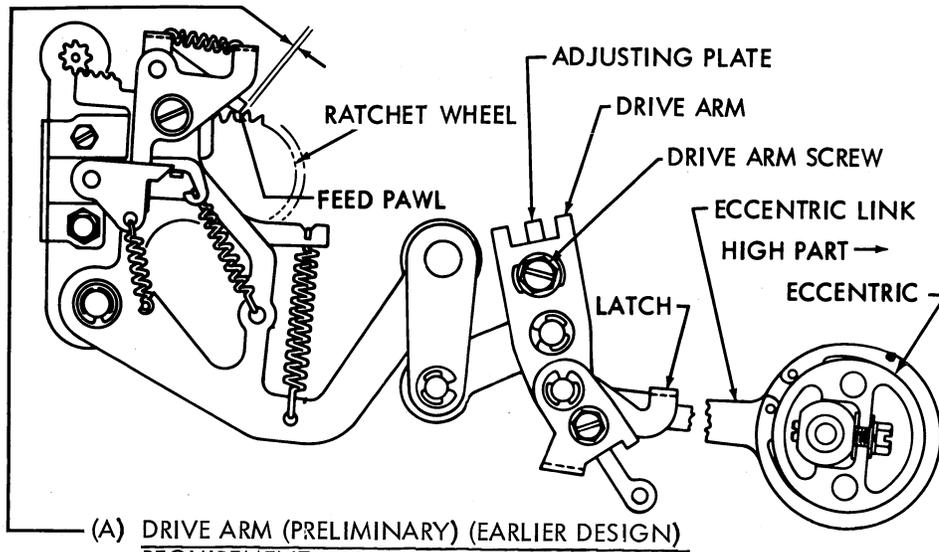
TO ADJUST

ROTATE ECCENTRIC WITH MOUNTING NUT LOOSENED. KEEP HIGH PART OF ECCENTRIC TO LEFT.

*NOTE:

THIS ADJUSTMENT IS MADE AT FACTORY AND SHOULD NOT BE DISTURBED UNLESS A REASSEMBLY OF THE UNIT IS UNDERTAKEN. IF NECESSARY TO MAKE THIS ADJUSTMENT, THE PUNCH UNIT SHOULD BE REMOVED. SEE DISASSEMBLY AND REASSEMBLY. REMAKE PUNCH UNIT POSITION ADJUSTMENT.

3.26 Power Drive Backspace Mechanism for Chadless Tape - Continued



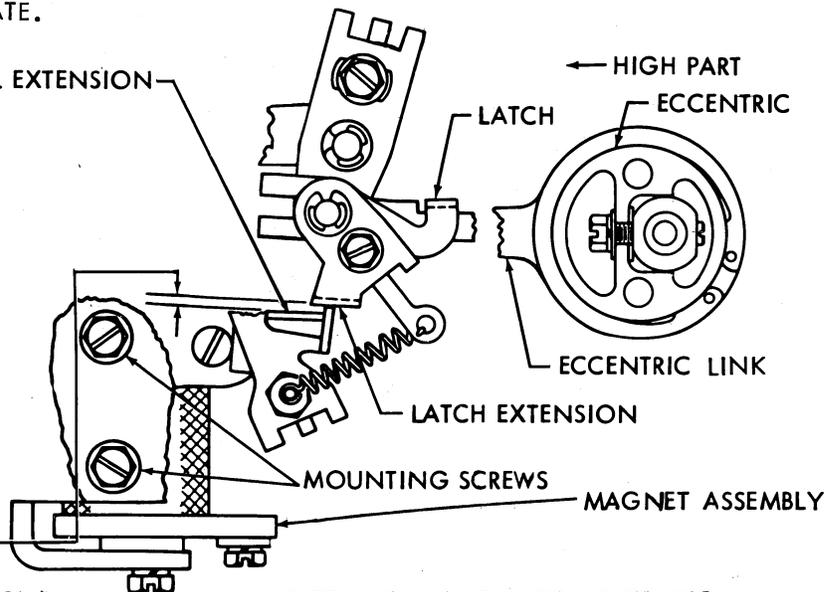
(A) DRIVE ARM (PRELIMINARY) (EARLIER DESIGN) REQUIREMENT

WITH DRIVE ARM LATCH LEVER ENGAGED WITH ECCENTRIC LINK, MAIN SHAFT ROTATED TO PLACE ECCENTRIC IN ITS EXTREME RIGHT HAND POSITION AND FEED WHEEL DETENTED BACK ONE SPACE

MIN. SOME---MAX. 0.003 INCH CLEARANCE BETWEEN THE BACKSPACE FEED PAWL AND THE RATCHET TOOTH. CHECK WITH FEED WHEEL SHAFT OIL HOLE IN THE UPPERMOST POSITION AND RECHECK EACH 90 DEGREES ABOUT THE PERIPHERY OF THE FEED WHEEL.

TO ADJUST LOOSEN DRIVE ARM SCREW (FRICTION TIGHT) AND POSITION ADJUSTING PLATE.

NOTE: THIS ADJUSTMENT IS MADE AT FACTORY AND SHOULD NOT BE DISTURBED UNLESS A REASSEMBLY OF THE UNIT IS UNDER TAKEN, IF NECESSARY TO MAKE THIS ADJUSTMENT, PUNCH SHOULD BE REMOVED. SEE DISASSEMBLY AND REASSEMBLY. REMAKE PUNCH POSITION ADJUSTMENT.



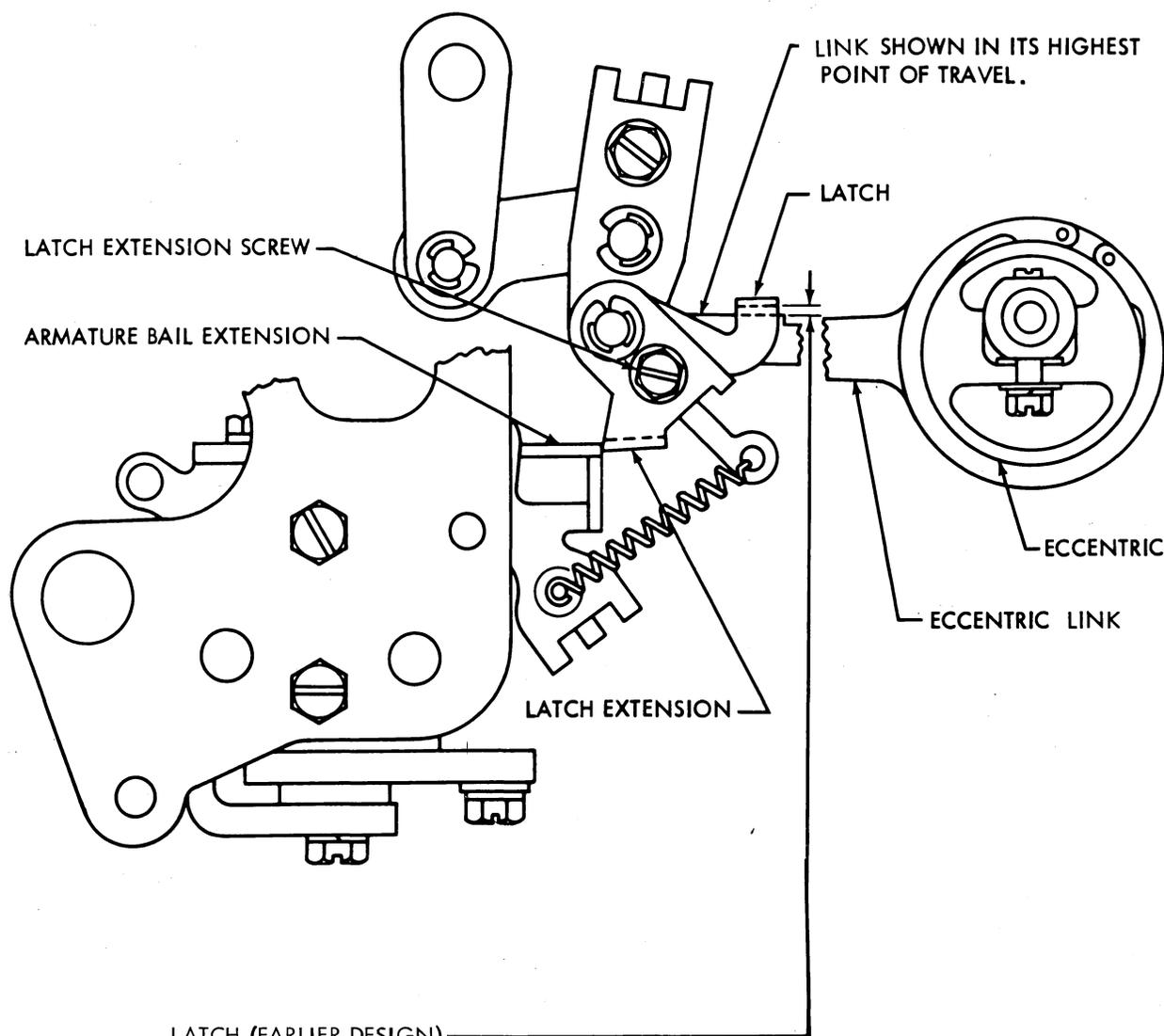
(B) LATCH EXTENSION (EARLIER DESIGN) REQUIREMENT

BACKSPACE MECHANISM IN UNOPERATED POSITION. HIGH PART OF ECCENTRIC TO LEFT. ARMATURE AGAINST POLE FACE. LATCH RESTING ON ECCENTRIC ARM NOTCH. CLEARANCE BETWEEN TOP OF ARMATURE BAIL

EXTENSION AND LATCH EXTENSION: MIN. 0.005 INCH MAX. 0.020 INCH

TO ADJUST SWING MAGNET CLOCKWISE OR COUNTER-CLOCKWISE, AS NECESSARY, WITH MOUNTING SCREWS FRICTION TIGHT.

3.27 Power Drive Backspace Mechanism for Chadless Tape - Continued



LATCH (EARLIER DESIGN)

REQUIREMENT

BACKSPACE MECHANISM IN UNOPERATED POSITION. ARMATURE OFF POLE FACE (DE-ENERGIZED). LATCH EXTENSION AGAINST END OF ARMATURE BAIL EXTENSION. ECCENTRIC LINK AT ITS CLOSEST POINT TO UNDERSIDE OF LATCH. CLEARANCE BETWEEN LATCH AND ECCENTRIC

LINK:

MIN. 0.005 INCH

MAX. 0.025 INCH

TO ADJUST

POSITION LATCH WITH LATCH EXTENSION SCREW LOOSENED.