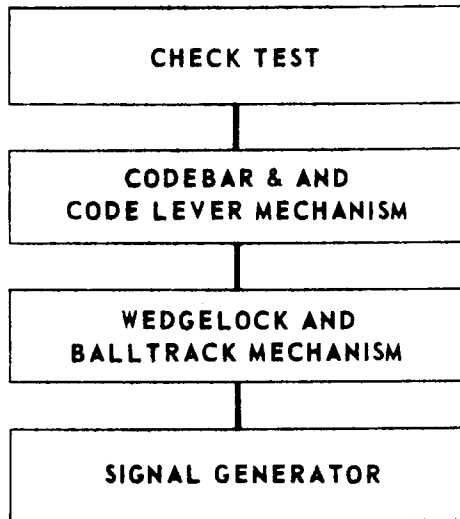
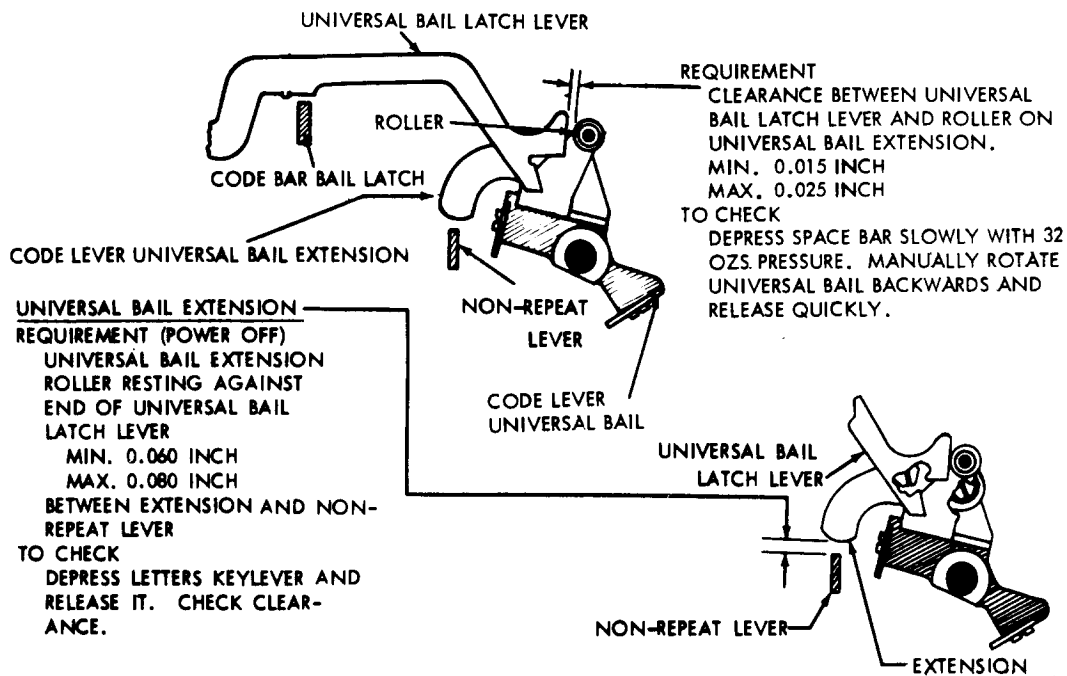
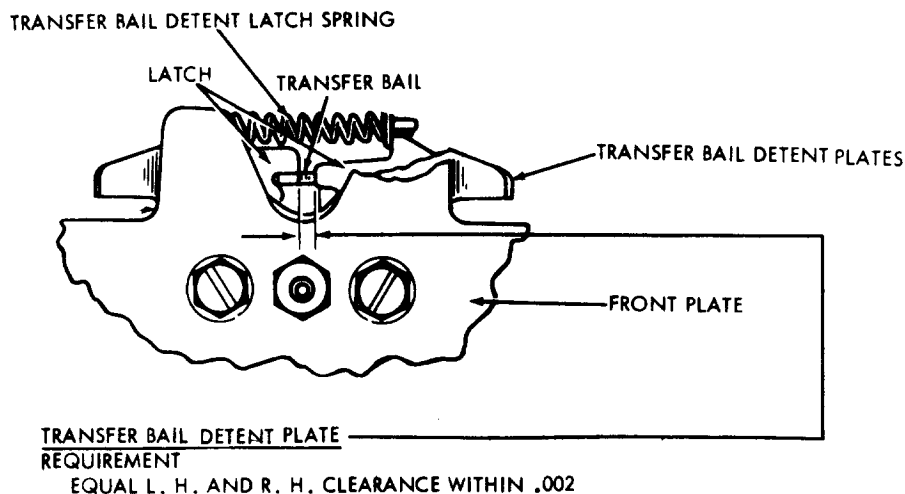


28 & 35 KEYBOARD



CONTACT BOX MECHANISM

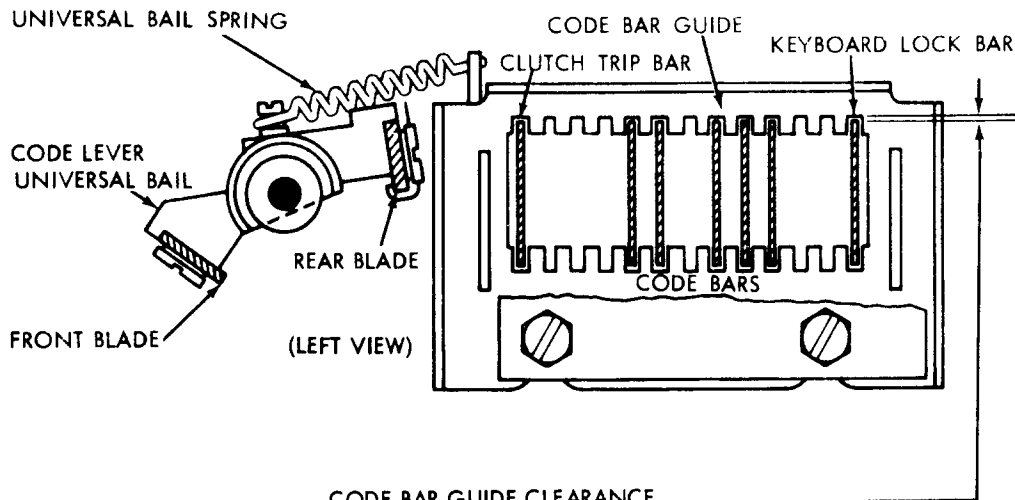


NOTE: Remove spring on repeat space mechanism prior to checking adjustment when unit has repeat on space mechanism.

To Adjust:

- 28 Type KSR B. S. P. 573-116-700
- " ASR B. S. P. 573-117-700
- 35 Type KSR B. S. P. 574-221-700
- " ASR B. S. P. 574-222-700

CODE BAR AND CODE LEVER MECHANISM

CODE BAR GUIDE CLEARANCE

REQUIREMENT

28 Type	MIN. SOME CLEARANCE MAX. 0.010 INCH	35 Type	MIN. SOME CLEARANCE MAX. 0.006 INCH
---------	--	---------	--

BETWEEN CODE BAR GUIDE AND ALL CODE BARS. CHECK BOTH ENDS OF CODE BARS. ALL CODE BARS SHOULD MOVE FREELY WITHOUT BIND.

Check the following only when keyboard touch problems are encountered.

WEDGELOCK AND BALL TRACK MECHANISM

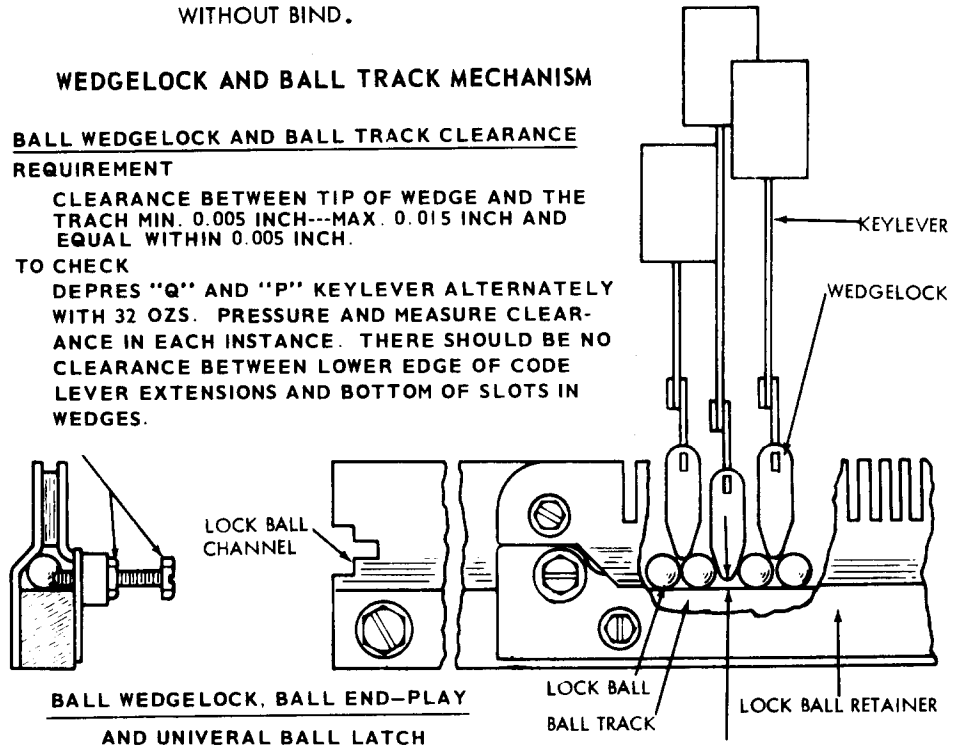
BALL WEDGELOCK AND BALL TRACK CLEARANCE

REQUIREMENT

CLEARANCE BETWEEN TIP OF WEDGE AND THE TRACH MIN. 0.005 INCH---MAX. 0.015 INCH AND EQUAL WITHIN 0.005 INCH.

TO CHECK

DEPRES "Q" AND "P" KEYLEVER ALTERNATELY WITH 32 OZS. PRESSURE AND MEASURE CLEARANCE IN EACH INSTANCE. THERE SHOULD BE NO CLEARANCE BETWEEN LOWER EDGE OF CODE LEVER EXTENSIONS AND BOTTOM OF SLOTS IN WEDGES.



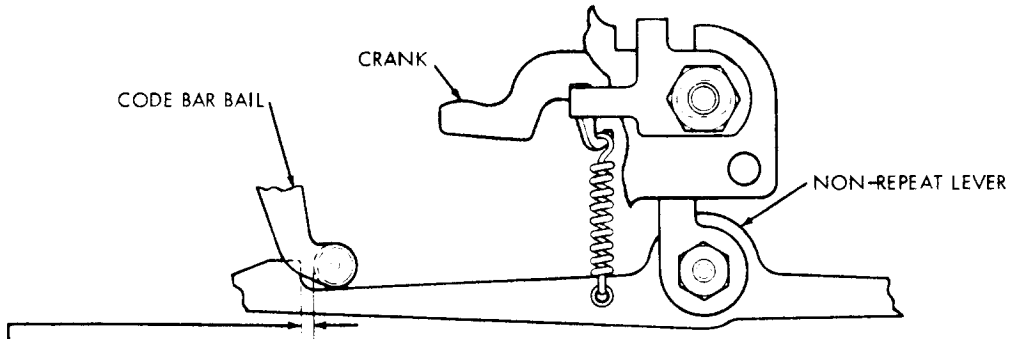
REQUIREMENT (UNDER POWER)

1. TRIP-OFF PRESSURE OF ANY CENTER ROW KEY SHOULD BE MIN. 2 OZS.---MAX. 5 OZS.
 2. APPLY 5-½ OZS. PRESSURE PERPENDICULAR TO "A" KEY. DEPRESS EACH KEY IN THIRD ROW. THE "A" KEY SHOULD TRIP EACH TIME A KEY IS RELEASED.
 3. REPEAT 2 WITH THE 5-½ OZS. PRESSURE ON "CAR. RET." KEY.
 4. THE CLUTCH SHOULD NOT TRIP WHEN TWO KEYS ARE DEPRESSED SIMULTANEOUSLY.
 5. APPLY 4-½ OZS. TO "SPACE BAR". DEPRESS "CAR. RET." KEY AND LIFT FINGER FROM KEY HORIZONTALLY. THE "SPACE BAR" SHOULD TRIP EACH TIME "CAR. RET." IS RELEASED.
- NOTE --- IF UNIT IS EQUIPPED FOR REPEAT-SPACE OPERATION, DISREGARD MULTIPLE SPACE OPERATIONS.

To Adjust:

- 28-KSR B. S. P. 573-116-700
 35-KSR B. S. P. 574-221-700
 28-ASR B. S. P. 573-117-700
 35-ASR B. S. P. 574-222-700

CODE BAR BAIL AND NON-REPEAT LEVER MECHANISMS



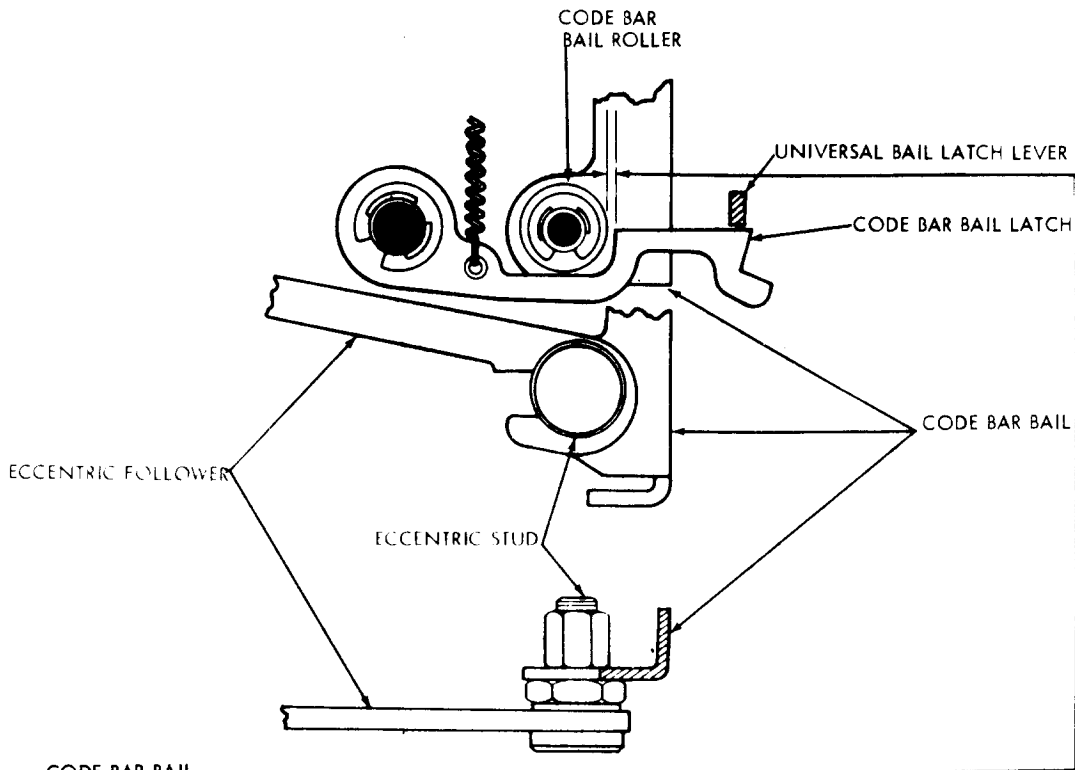
CODE BAR BAIL AND NON-REPEAT LEVER CLEARANCE REQUIREMENT

(FRONT VIEW)

MECHANISM IN INITIAL TRIP-OFF POSITION, ANY KEY DEPRESSED, NO POWER.

28 Type	MIN. 0.010 INCH	35 Type	MIN. SOME
	MAX. 0.020 INCH		MAX. 0.010 INCH

BETWEEN ROLLER OF CODE BAR BAIL AND NON-REPEAT LEVER PICK-UP STEP.



CODE BAR BAIL REQUIREMENT

CAM ECCENTRIC AND ARM WHICH HOLD THE BAIL IN EXTREME RESET POSITION TO THE LEFT.

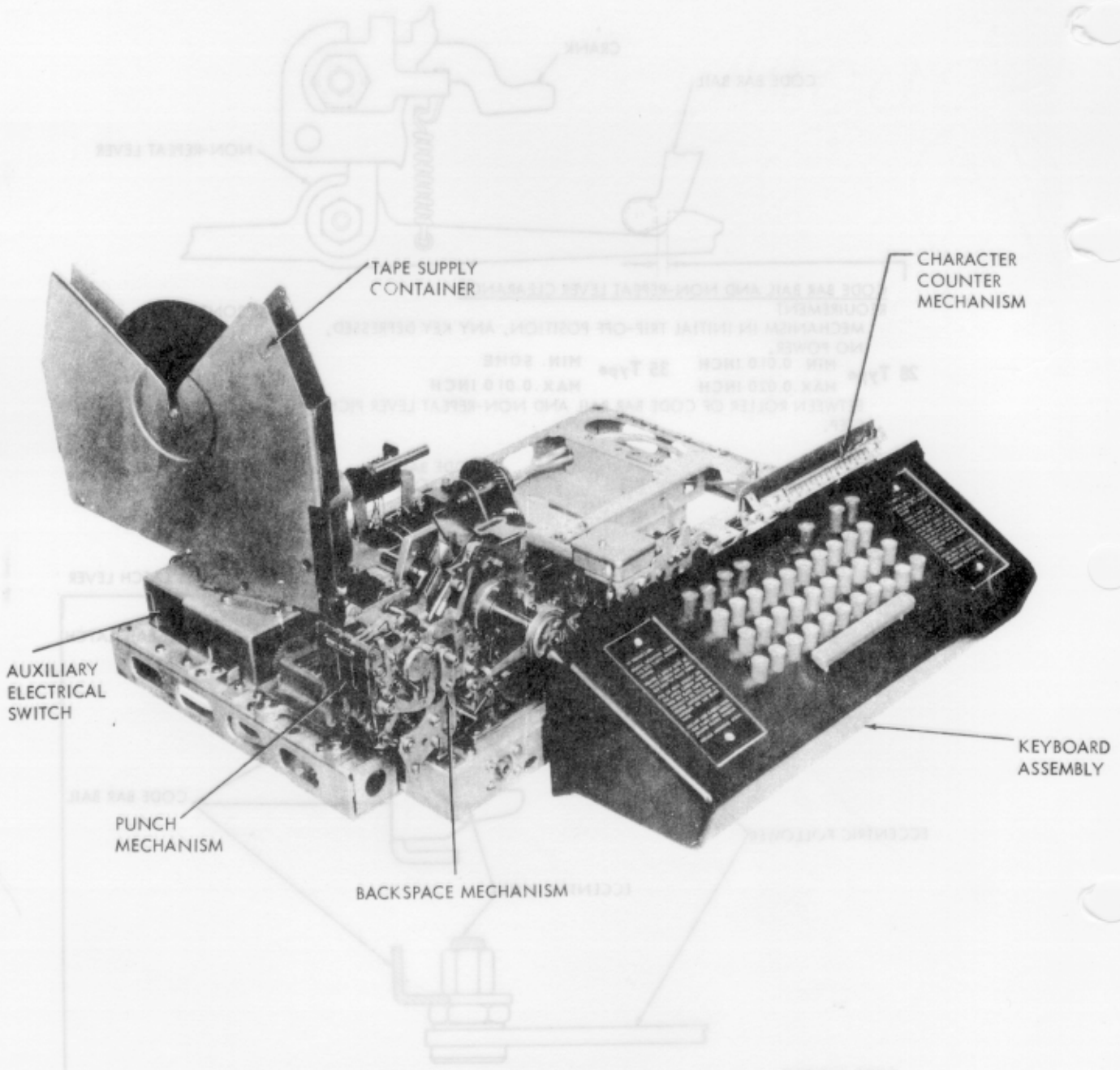
28 Type	MIN. 0.004 INCH	35 Type	MIN. SOME
	MAX. 0.012 INCH		MAX. 0.006 INCH

BETWEEN CODE BAR BAIL ROLLER AND CODE BAR BAIL LATCH

To Adjust:

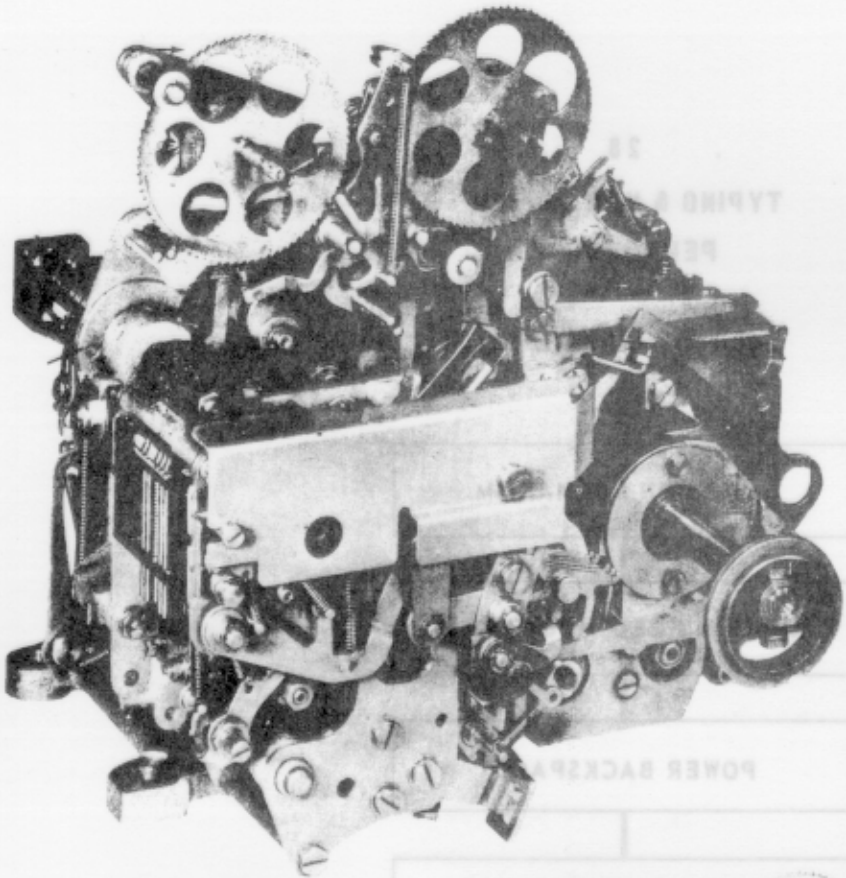
- 28-KSR B. S. P. 573-116-700
- 35-KSR B. S. P. 574-221-700
- 28-ASR B. S. P. 573-117-700
- 35-ASR B. S. P. 574-222-700

MODEL 28 PERFORATOR TRANSMITTER BASE
 CODE BAR BAIL AND NON-REPEAT LEVER MECHANISMS

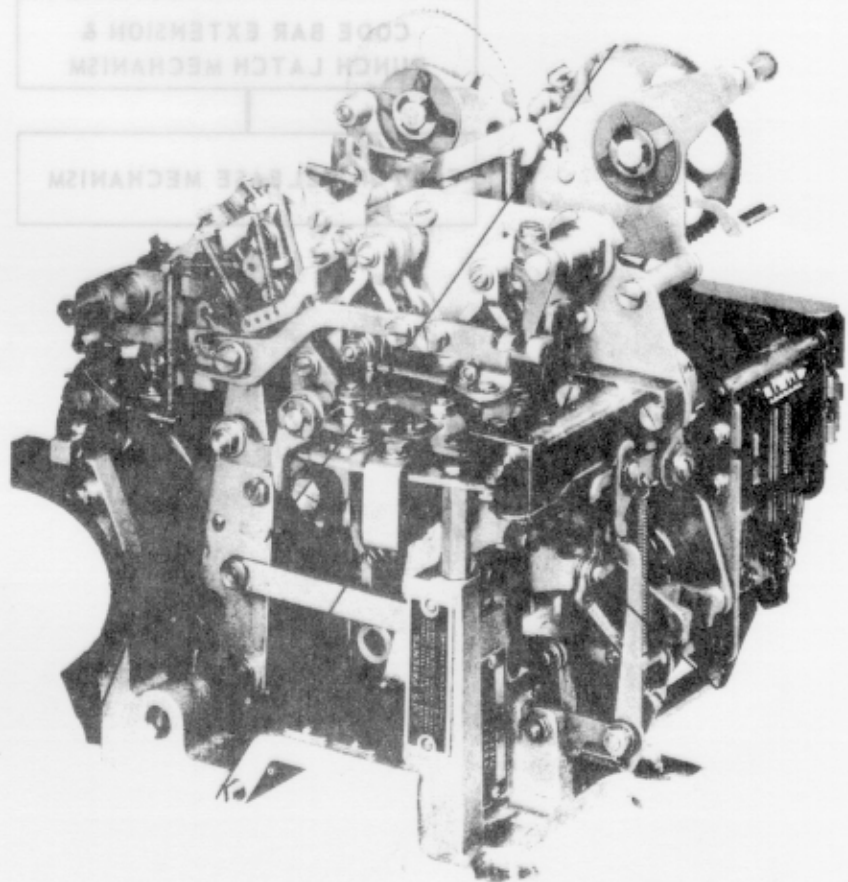


To Adjust:

38-K2R	B. & P.	273-118-700
38-K2R	B. & P.	274-221-700
38-A2R	B. & P.	273-117-700
38-A2R	B. & P.	274-223-700



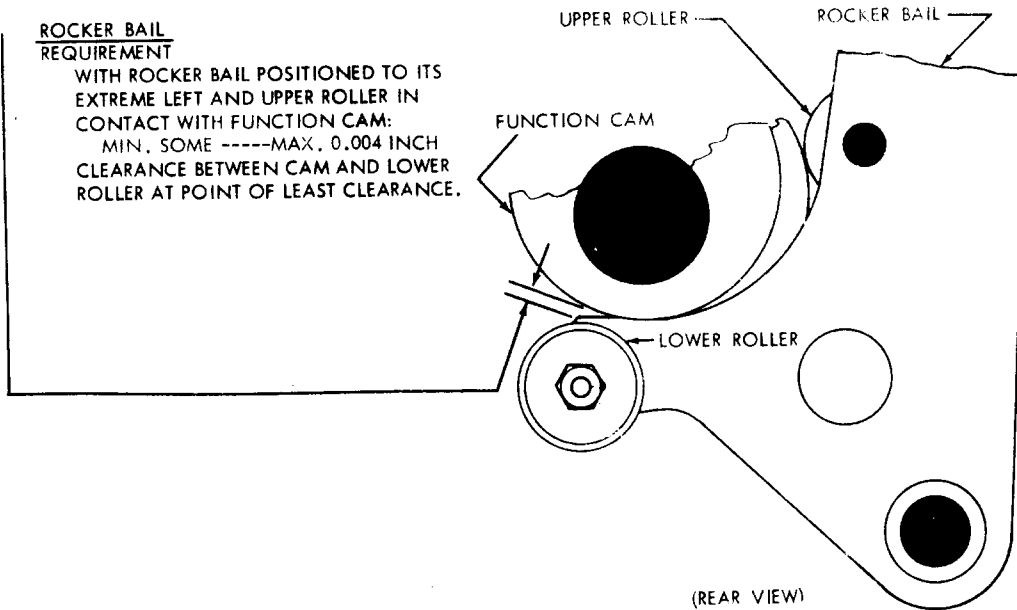
FRONT VIEW



REAR VIEW

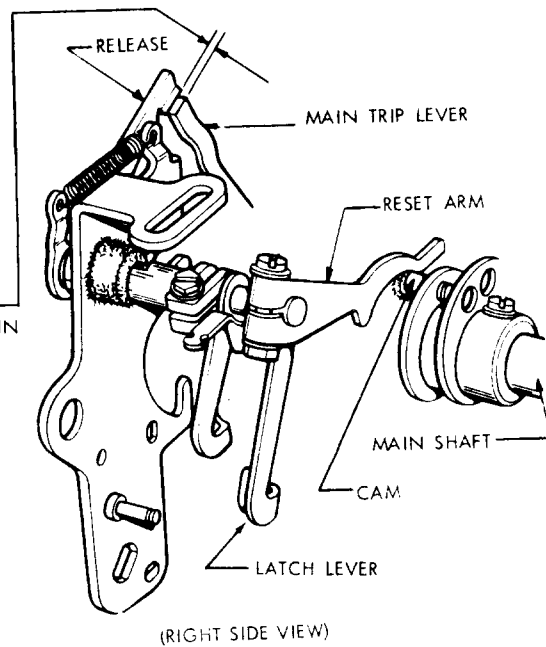
FUNCTION MECHANISM

28 TYPE ONLY



RESET ARM TO CHECK
 TRIP FUNCTION CLUTCH AND POSITION MAIN SHAFT SO THAT RESET ARM IS HELD IN ITS HIGHEST POSITION BY CAM

- REQUIREMENT**
- | | |
|--|--------------------------|
| (1) CLEARANCE BETWEEN RELEASE AND MAIN TRIP LEVER. | |
| <u>NON-TYPING PERFORATOR</u> | <u>TYPING PERFORATOR</u> |
| MIN. 0.005 INCH | 0.005 INCH |
| MAX. 0.025 INCH | 0.030 INCH |
| (2) LATCH LEVER END PLAY: | |
| MIN. SOME | |
| MAX. 0.010 INCH | |



To Adjust:
 B. S. P. 573-117-700

PERFORATOR MECHANISM FOR CHADLESS TAPE

28 TYPE ONLY

PUNCH SLIDE DOWNSTOP POSITION

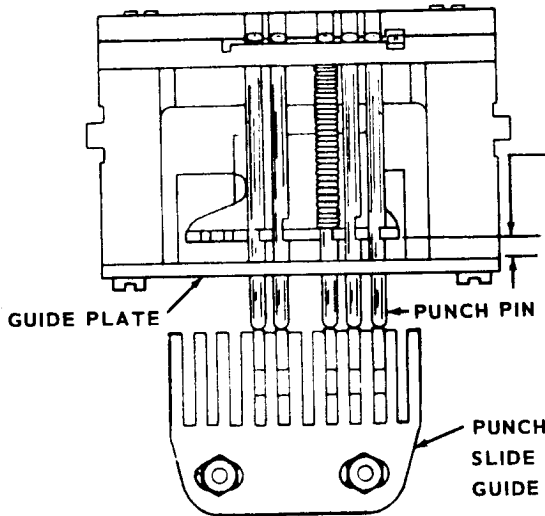
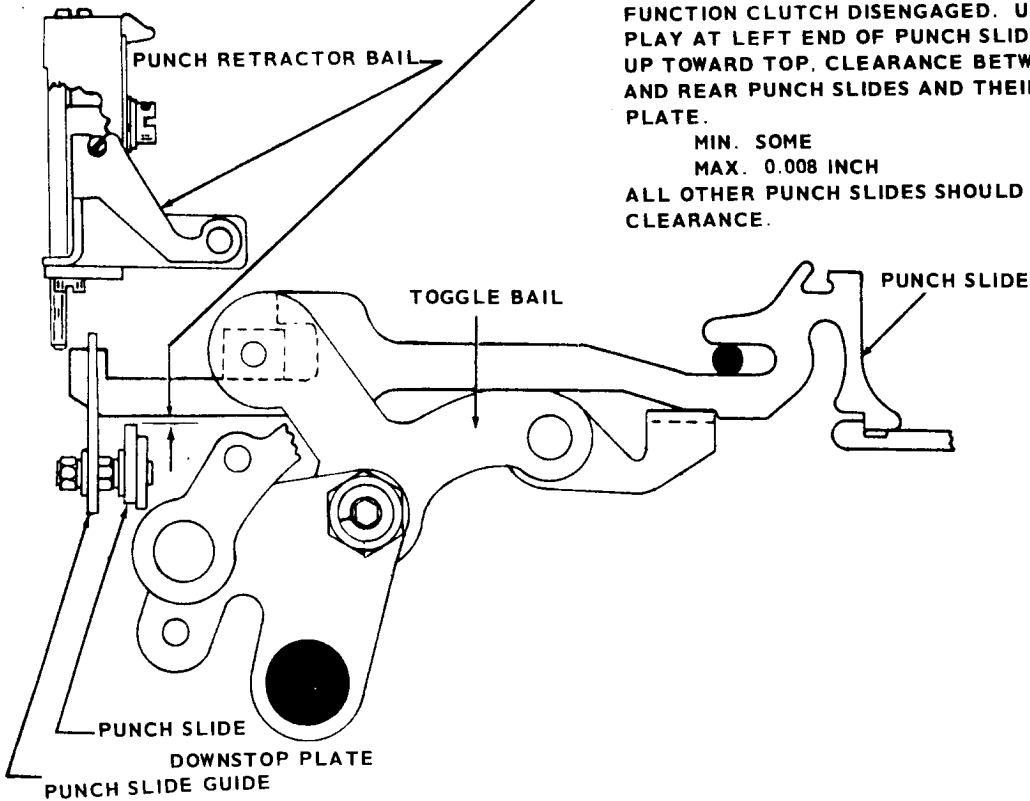
REQUIREMENT

FUNCTION CLUTCH DISENGAGED. UP AND DOWN PLAY AT LEFT END OF PUNCH SLIDES TAKEN UP TOWARD TOP. CLEARANCE BETWEEN FRONT AND REAR PUNCH SLIDES AND THEIR DOWNSTOP PLATE.

MIN. SOME

MAX. 0.008 INCH

ALL OTHER PUNCH SLIDES SHOULD HAVE SOME CLEARANCE.



PUNCH PIN PENETRATION

REQUIREMENT

LETTERS MANUALLY SELECTED. CLUTCH ENGAGED AND ROTATED UNTIL PUNCH PINS HAVE TRAVELED MAXIMUM DISTANCE INTO THE DIE PLATE. CLEARANCE BETWEEN THE UPPER EDGE OF SLIDE HAVING THE MOST CLEARANCE AND THE LOWER SIDE OF THE PUNCH HOLDER

MIN. 0.025 INCH

MAX. 0.035 INCH

PUNCH SLIDE GUIDE POSITION

REQUIREMENT

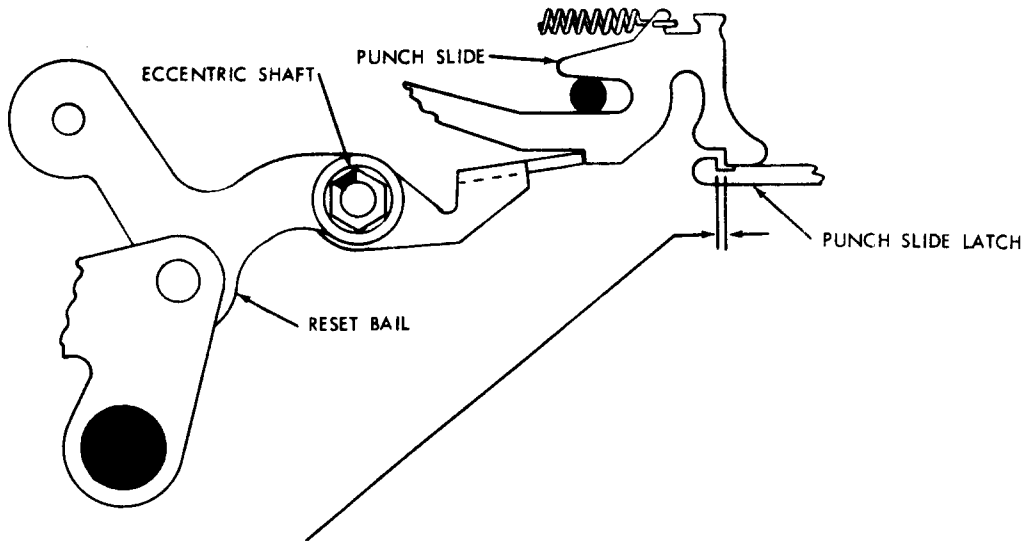
LETTERS SELECTED. FUNCTION CLUTCH ENGAGED AND ROTATED UNTIL THE PUNCH SLIDES JUST TOUCH THE PUNCH PINS. THE PUNCH SLIDES SHOULD ALIGN CENTRALLY WITH THEIR RESPECTIVE PUNCH PINS (GAUGED BY EYE).

To Adjust:

28 Type B. S. P. 573-118-700

35 Type B. S. P. 573-119-700

28 TYPE ONLY



PUNCH SLIDE RESET BAIL
REQUIREMENT

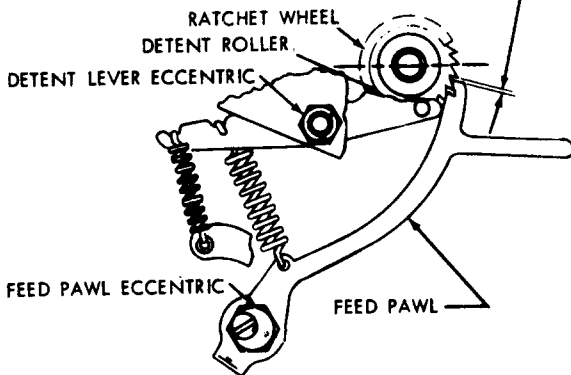
FUNCTION CLUTCH DISENGAGED AND LATCHED. CLEARANCE AT PUNCH SLIDE LATCH CLOSEST TO PUNCH SLIDE:

- (A) FOR NON-TYPING PERFORATOR ONLY
 - MIN. 0.015 INCH
 - MAX. 0.025 INCH
- (B) FOR TYPING PERFORATOR ONLY
 - MIN. 0.005 INCH
 - MAX. 0.015 INCH

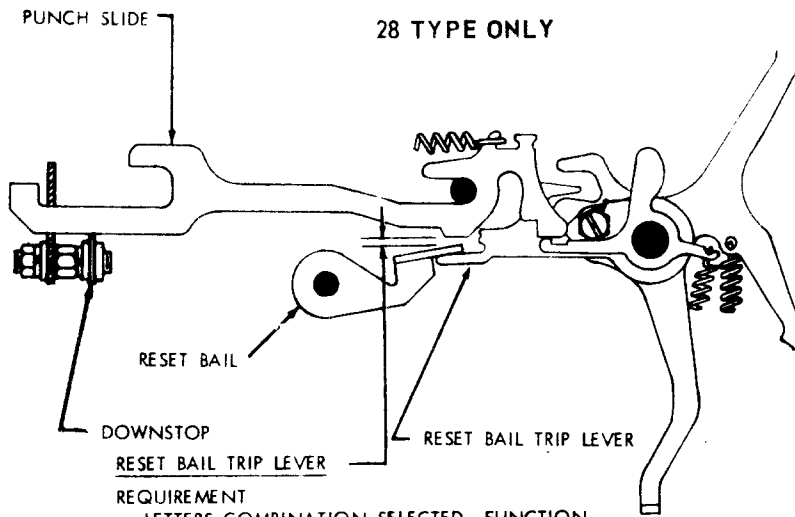
FEED PAWL

REQUIREMENT

FUNCTION CLUTCH DISENGAGED, INDENTATION IN DETENT LEVER ECCENTRIC AT RIGHT ANGLE TO LEVER, DETENT ROLLER IN CONTACT WITH RATCHET WHEEL, HIGH PART OF FEED PAWL ECCENTRIC TO THE RIGHT OF ITS LOCK SCREW, THE FEED PAWL SHOULD ENGAGE THE FIRST TOOTH BELOW A HORIZONTAL CENTER LINE THROUGH THE RATCHET WHEEL WITH NO PERCEPTIBLE CLEARANCE



PUNCH SLIDE TRIP MECHANISM



28 TYPE ONLY

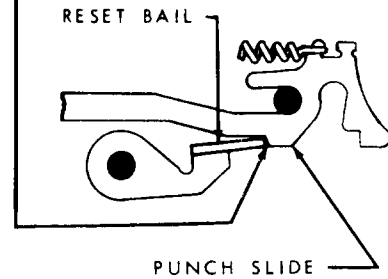
REQUIREMENT

LETTERS COMBINATION SELECTED, FUNCTION CLUTCH TRIPPED, PUNCH SLIDES AGAINST THEIR DOWNSTOP.

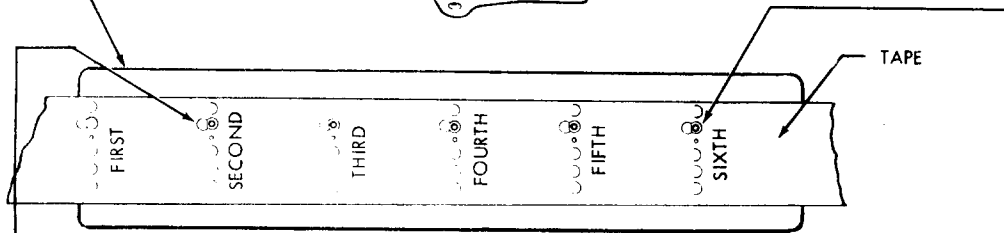
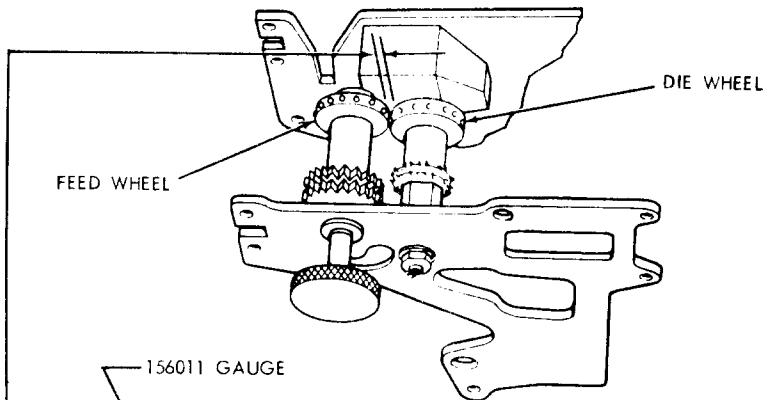
CLEARANCE BETWEEN LOWER EDGE OF SLIDE AND UPPER EDGE OF RESET BAIL
MIN. SOME
MAX. 0.007 INCH
WHEN PLAY IS TAKEN UP FOR MINIMUM

REQUIREMENT

CLUTCH DISENGAGED AND LATCHED. PUNCH SLIDE RESET BAIL SHOULD FULLY ENGAGE THE NOTCHES IN THE PUNCH SLIDES.



PUNCH UNIT RESET AND FEEDING MACHINISM



TO CHECK

PERFORATE IN ORDER SIX SEQUENCES MADE UP OF NINE BLANK CODE COMBINATIONS FOLLOWED BY A LETTERS COMBINATION. OPEN CHADS SO THAT CODE HOLES ARE VISIBLE. PLACE TAPE OVER SMOOTH SIDE OF 156011 TAPE GAUGE SO THAT FIRST NO. 2 CODE HOLE IS CONCENTRIC WITH FIRST (0.072 INCH) HOLE IN GAUGE.

REQUIREMENT

SECOND THROUGH FIFTH HOLE IN GAUGE VISIBLE THROUGH NO. 2 CODE HOLES IN TAPE. CIRCULAR PORTION OF SIXTH NO. 2 CODE HOLE ENTIRELY WITHIN CORRESPONDING (0.086 INCH) HOLE IN GAUGE.

REQUIREMENT

WITH TAPE SHOE HELD AWAY FROM FEED WHEEL, FEED PAWL AND DETENT DISENGAGED AND TAPE REMOVED, FEED WHEEL SHOULD ROTATE FREELY.

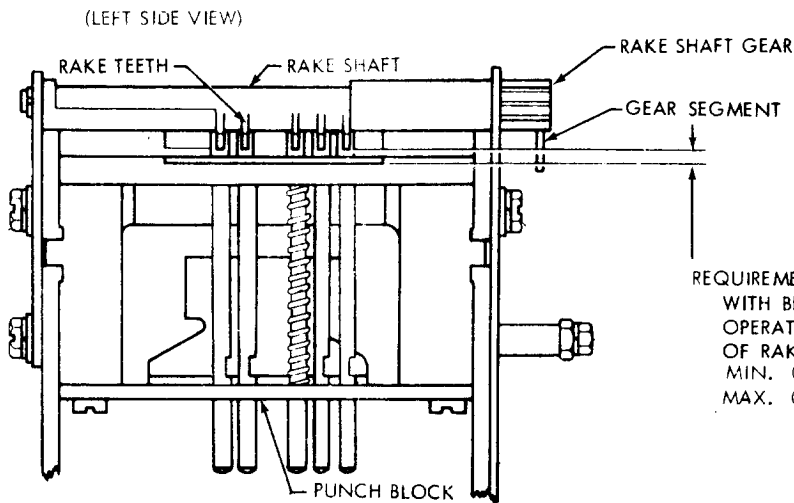
MIN. 0.002 INCH MAX. 0.004 INCH.

WITH TAPE REMOVED, WHEEL-DIE CLEARANCE IS A MIN. OF 0.002 INCH.

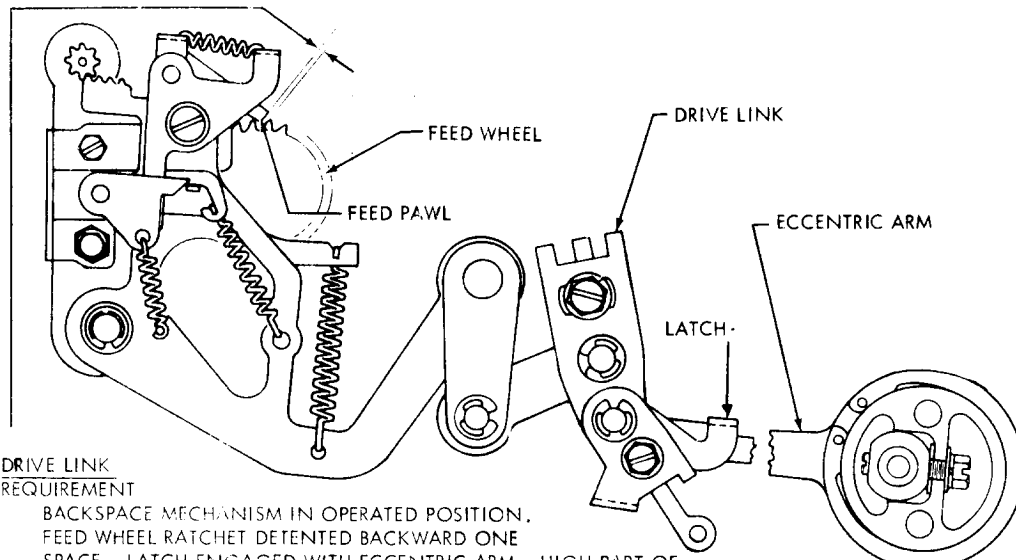
To Adjust:
B. S. P. 573-117-700

POWER-DRIVE BACKSPACE MECHANISM

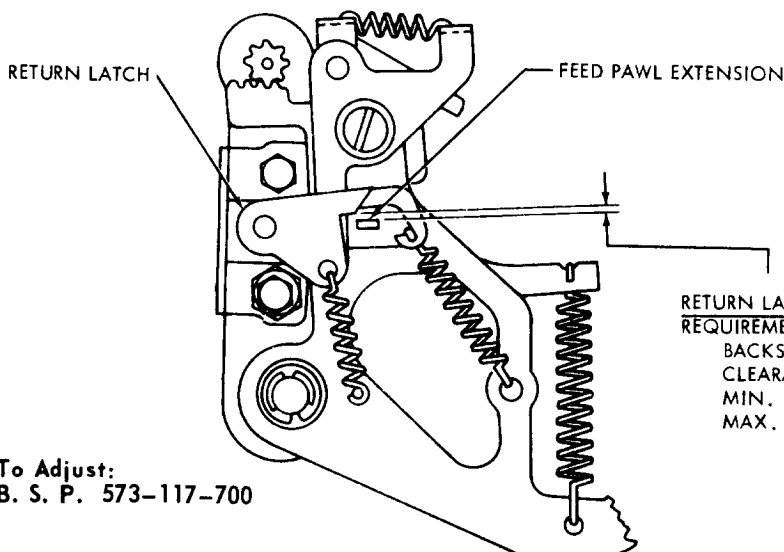
28 TYPE ONLY



REQUIREMENT
 WITH BELLCRANK SPRING UNHOOKED AND RAKE IN OPERATED POSITION, CLEARANCE BETWEEN BOTTOM OF RAKE TEETH AND LOWER SURFACE OF TAPE SLOT:
 MIN. 0.007 INCH
 MAX. 0.011 INCH (CHECK AT NO.1 & 5 PINS.)



DRIVE LINK REQUIREMENT
 BACKSPACE MECHANISM IN OPERATED POSITION, FEED WHEEL RATCHET DETENTED BACKWARD ONE SPACE. LATCH ENGAGED WITH ECCENTRIC ARM. HIGH PART OF ECCENTRIC TO THE RIGHT. CLEARANCE BETWEEN FEED PAWL AND FEED WHEEL RATCHET TOOTH CHECKED AT EACH 10 DEGREES.
 MIN. .50M7---MAX. 0.003 INCH

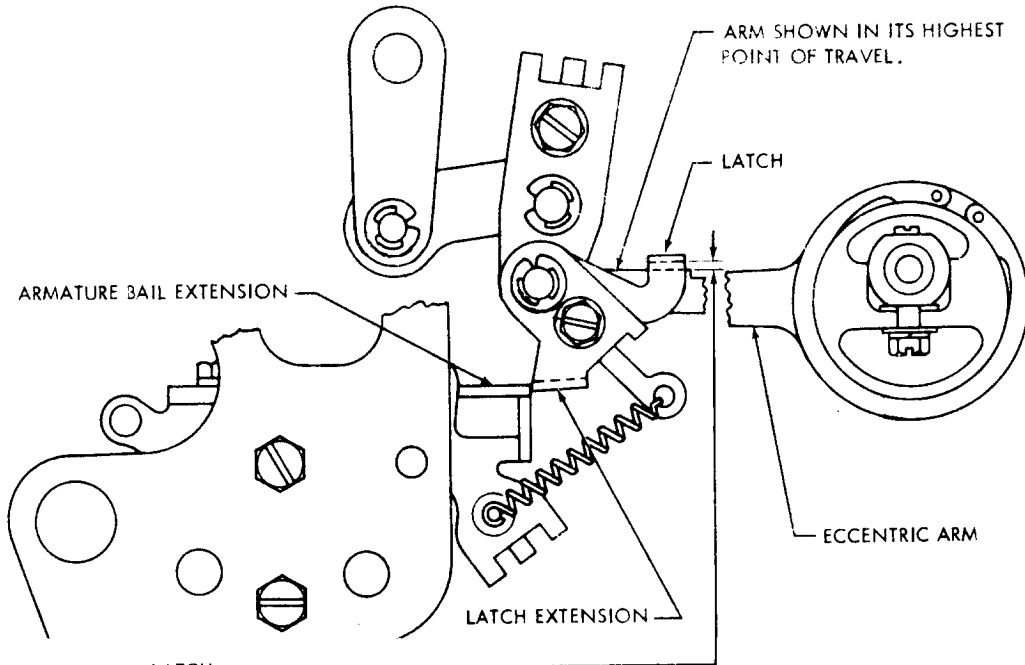


RETURN LATCH REQUIREMENT
 BACKSPACE MECHANISM IN UNOPERATED POSITION. CLEARANCE BETWEEN RETURN LATCH AND FEED PAWL EXTENSION
 MIN. 0.004 INCH
 MAX. 0.020 INCH

To Adjust:
 B. S. P. 573-117-700

POWER-DRIVE BACKSPACE MECHANISM

28 TYPE ONLY



LATCH
REQUIREMENT

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

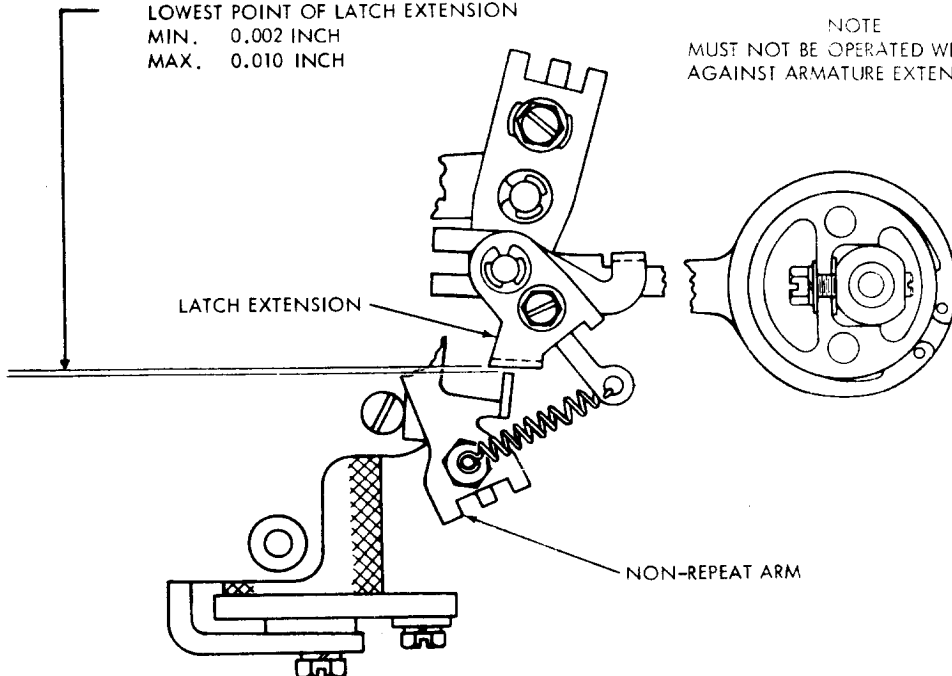
MIN. 0.005 INCH
MAX. 0.025 INCH

NON-REPEAT ARM
REQUIREMENT

BACKSPACE MECHANISM IN UNOPERATED POSITION. CLEARANCE BETWEEN TOP SURFACE OF NON-REPEAT ARM AND LOWEST POINT OF LATCH EXTENSION

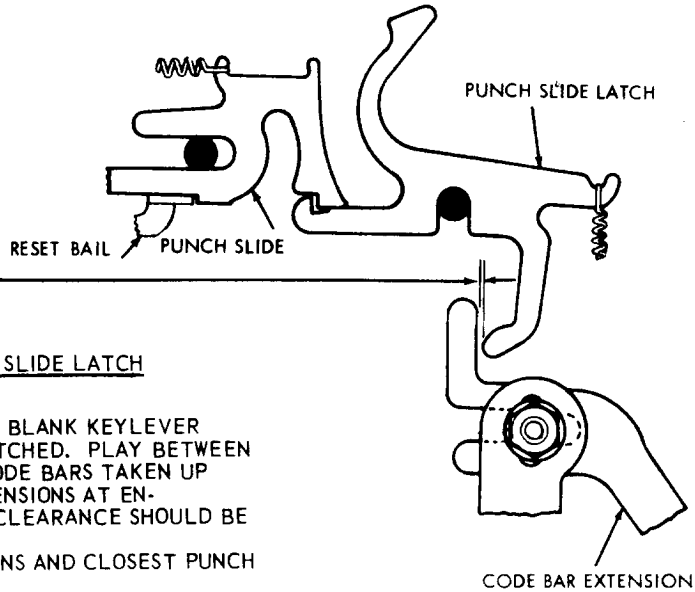
MIN. 0.002 INCH
MAX. 0.010 INCH

NOTE
MUST NOT BE OPERATED WITH LATCH AGAINST ARMATURE EXTENSION



To Adjust:
B. S. P. 573-117-700

28 TYPE ONLY



CODE BAR EXTENSION AND PUNCH SLIDE LATCH

(1) REQUIREMENT

CONTROL KNOB IN T POSITION, BLANK KEYLEVER DEPRESSED. PUNCH SLIDE LATCHED. PLAY BETWEEN CODE BAR EXTENSIONS AND CODE BARS TAKEN UP BY MOVING AND HOLDING EXTENSIONS AT ENGAGEMENT WITH CODE BARS. CLEARANCE SHOULD BE MIN. SOME---MAX. 0.010 INCH BETWEEN CODE BAR EXTENSIONS AND CLOSEST PUNCH SLIDE LATCH.

(2) REQUIREMENT

LTRS KEYLEVER DEPRESSED. CODE BAR EXTENSIONS SHOULD ROTATE PUNCH SLIDE LATCHES TO RELEASE ALL PUNCH SLIDES.

CODE BAR EXTENSION AND DETENT LEVER MECHANISMS

CODE BAR EXTENSION BLOCKING ASSEMBLY
REQUIREMENT

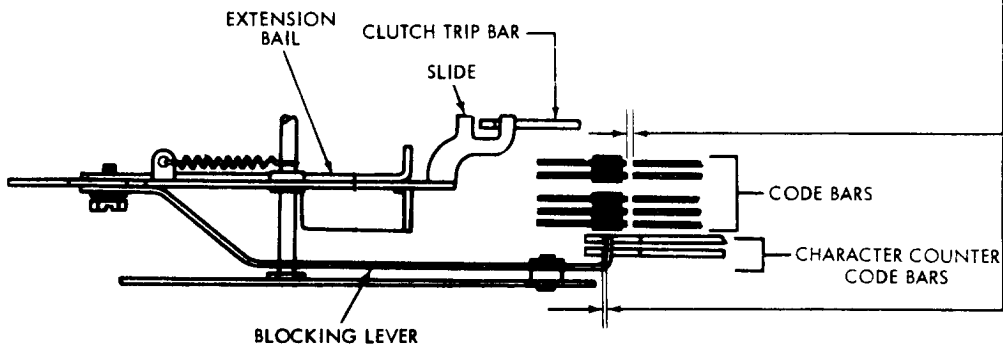
SELECTOR SWITCH IN K POSITION. CODE BAR EXTENSIONS AND CHARACTER COUNTER BARS SHOULD NOT OPERATE WHEN LTRS KEYLEVER IS OPERATED.

(1) CLEARANCE BETWEEN RIGHT END AT CODE BAR EXTENSIONS AND CODE BARS.

MIN. SOME
MAX. 0.015 INCH

(2) CLEARANCE BETWEEN BLOCKING LEVER AND SIDE OF NOTCH IN CHARACTER COUNTER CODE BARS. BAR WITH CLOSEST GAP

MIN. SOME
MAX. 0.008 INCH



To Adjust:
B. S. P. 573-117-700

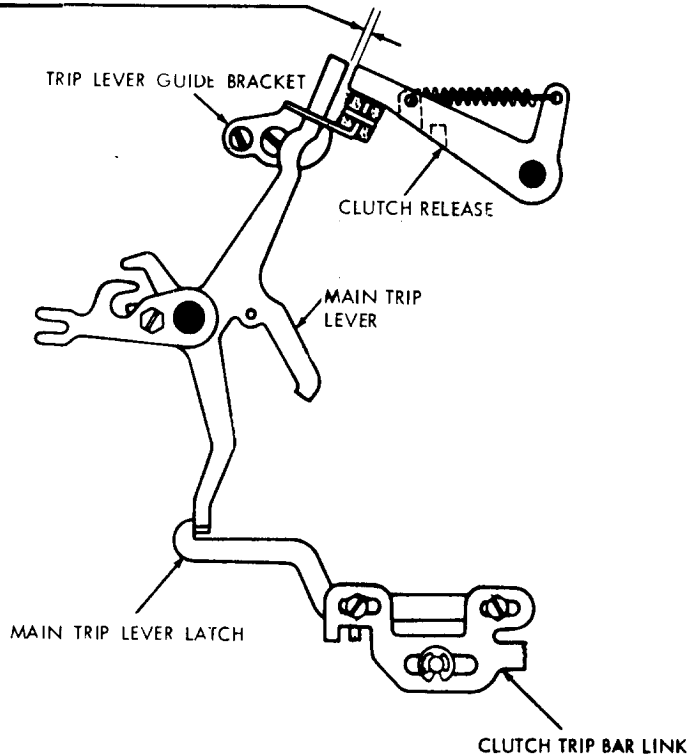
PERFORATOR CLUTCH RELEASE MECHANISM

28 TYPE ONLY

PERFORATOR CLUTCH RELEASE TRIP
REQUIREMENT

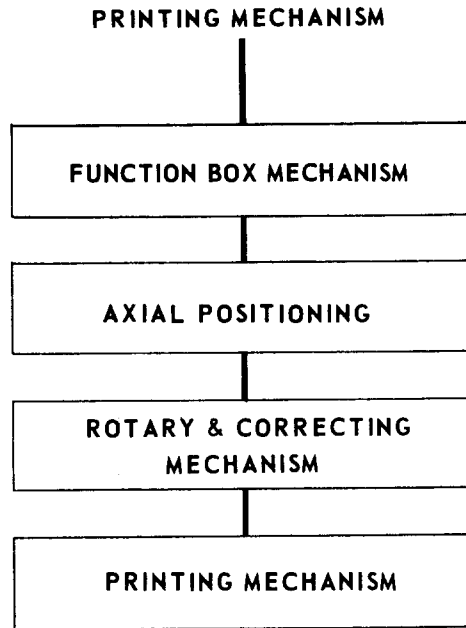
PERFORATOR CLUTCH SHOULD TRIP CONSISTENTLY IN T AND K-T POSITIONS WHEN BLANK AND REPEAT KEYLEVERS ARE DEPRESSED SIMULTANEOUSLY. WHEN THE CONTROL KNOB IS TURNED FROM K POSITION TO K-T POSITION, THE PERFORATOR CLUTCH SHOULD TRIP WHEN THE FIRST KEYLEVER IS DEPRESSED.

CLEARANCE BETWEEN MAIN TRIP LEVER AND CLUTCH RELEASE
MIN. 0.015 INCH
MAX. 0.025 INCH



To Adjust:
B. S. P. 573-117-700

28 TYPING PERFORATOR

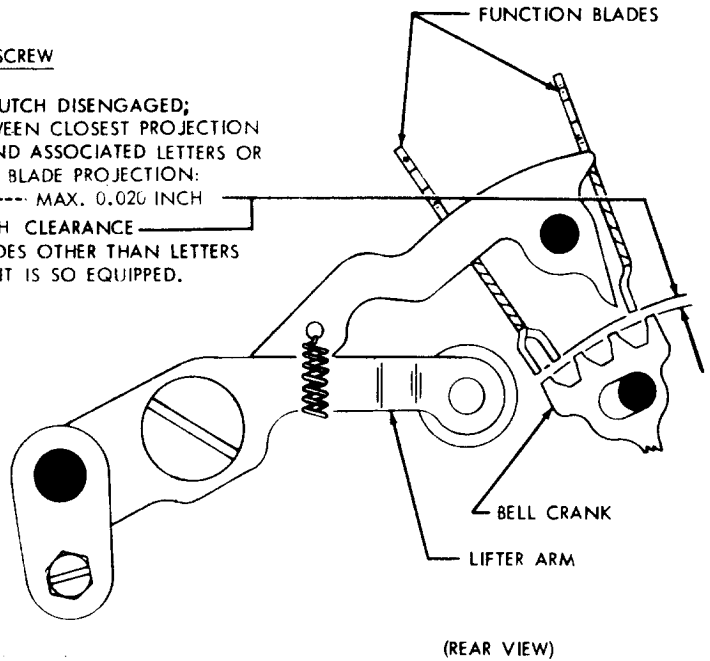


FUNCTION BOX MECHANISM

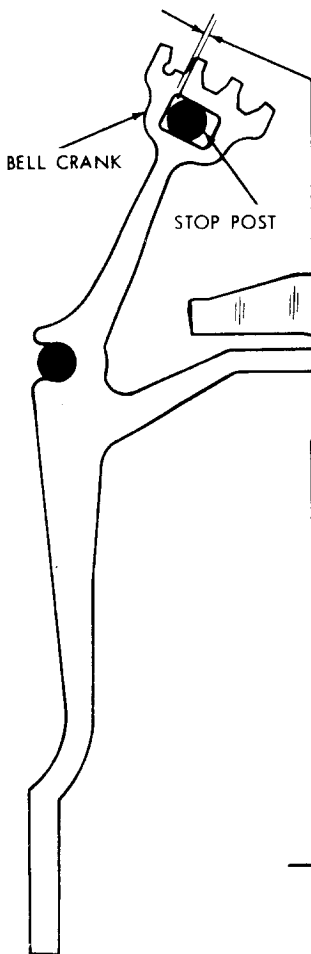
28 TYPE ONLY

LIFTER ARM ECCENTRIC SCREW
REQUIREMENT

- WITH FUNCTION CLUTCH DISENGAGED;
 (1) CLEARANCE BETWEEN CLOSEST PROJECTION OF BELL CRANKS AND ASSOCIATED LETTERS OR FIGURES FUNCTION BLADE PROJECTION:
 MIN. 0.008 INCH---- MAX. 0.020 INCH
 (2) MIN. 0.005 INCH CLEARANCE FOR FUNCTION BLADES OTHER THAN LETTERS AND FIGURES IF UNIT IS SO EQUIPPED.



TRANSFER MECHANISM



TRANSFER MOUNTING BRACKET

TO CHECK

MANUALLY SELECT BLANK CODE COMBINATION. ROTATE MAIN SHAFT UNTIL FUNCTION CLUTCH TRIPS.

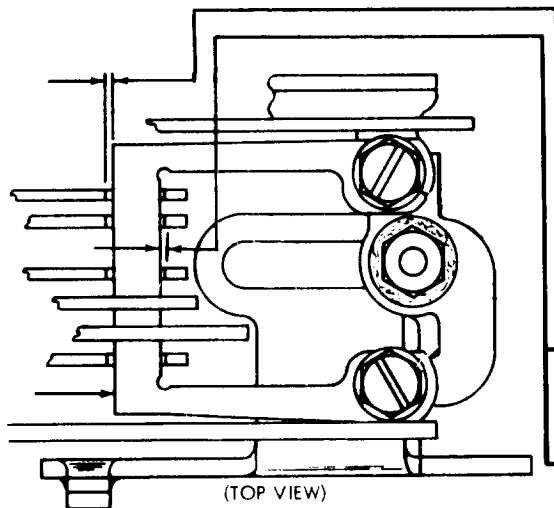
REQUIREMENT

WITH PUNCH SLIDES LATCHED CLEARANCE BETWEEN BELL CRANK AND STOP POST:

MAX. 0.018 INCH *

AT BELL CRANK WHERE CLEARANCE IS MAXIMUM, WHEN BELL CRANK WITH MINIMUM CLEARANCE IS TOUCHING POST.

FUNCTION MECHANISM



PUSH BAR OPERATING BLADE

TO CHECK

MANUALLY SELECT LETTERS CODE COMBINATION (12345). ROTATE MAIN SHAFT UNTIL FUNCTION CLUTCH TRIPS. MANUALLY SEAT PUSH BARS IN DETENTED POSITION. IN BAR WHICH IS NEAREST LEFT EDGE OF BLADE, TAKE UP PLAY TO LEFT AND REAR, AND THEN RELEASE.

(1) REQUIREMENT

CLEARANCE BETWEEN BAR AND LEFT EDGE OF BLADE:

MIN. 0.015 INCH-----MAX. 0.025 INCH

(2) REQUIREMENT

SOME CLEARANCE BETWEEN RIGHT EDGE OF BLADE AND PUSH BARS WHEN PLAY IN BARS HAS BEEN TAKEN UP TO RIGHT AND RELEASED.

(3) REQUIREMENT

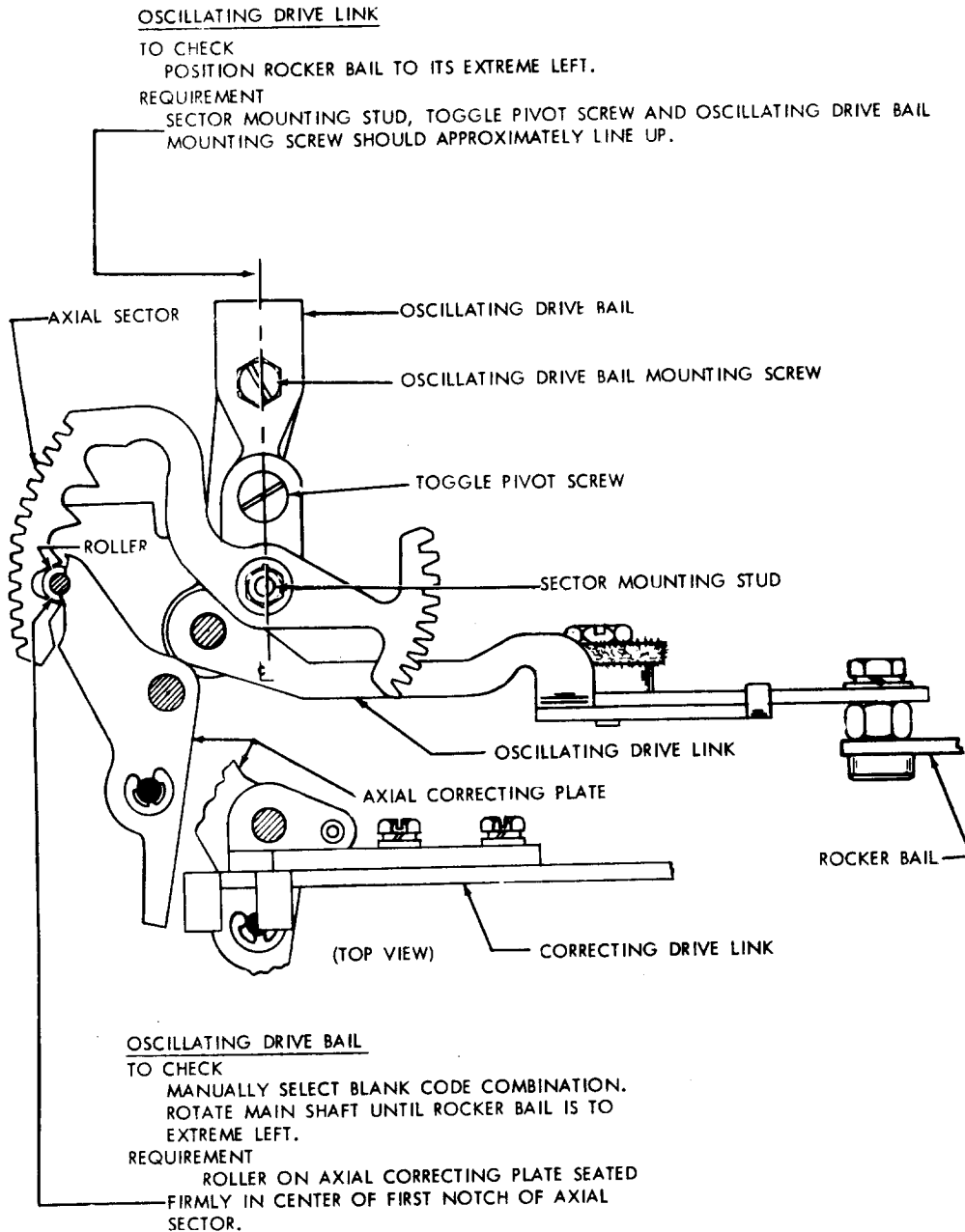
WITH UNIT IN STOP POSITION, SOME CLEARANCE BETWEEN RIGHT EDGE OF BLADE AND BARS WHEN PLAY IN BARS HAS BEEN TAKEN UP TO RIGHT AND RELEASED.

To Adjust:

B. S. P. 573-117-700

AXIAL POSITIONING

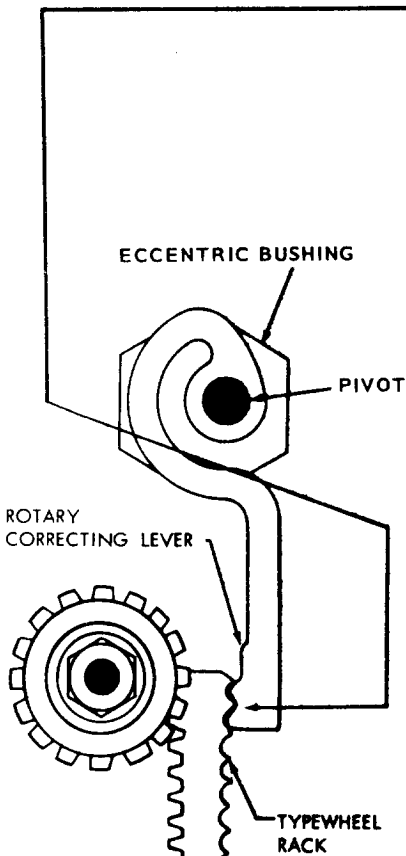
28 TYPE ONLY



To Adjust:
B. S. P. 573-117-700

CORRECTING MECHANISM

28 TYPE ONLY



(1) TO CHECK

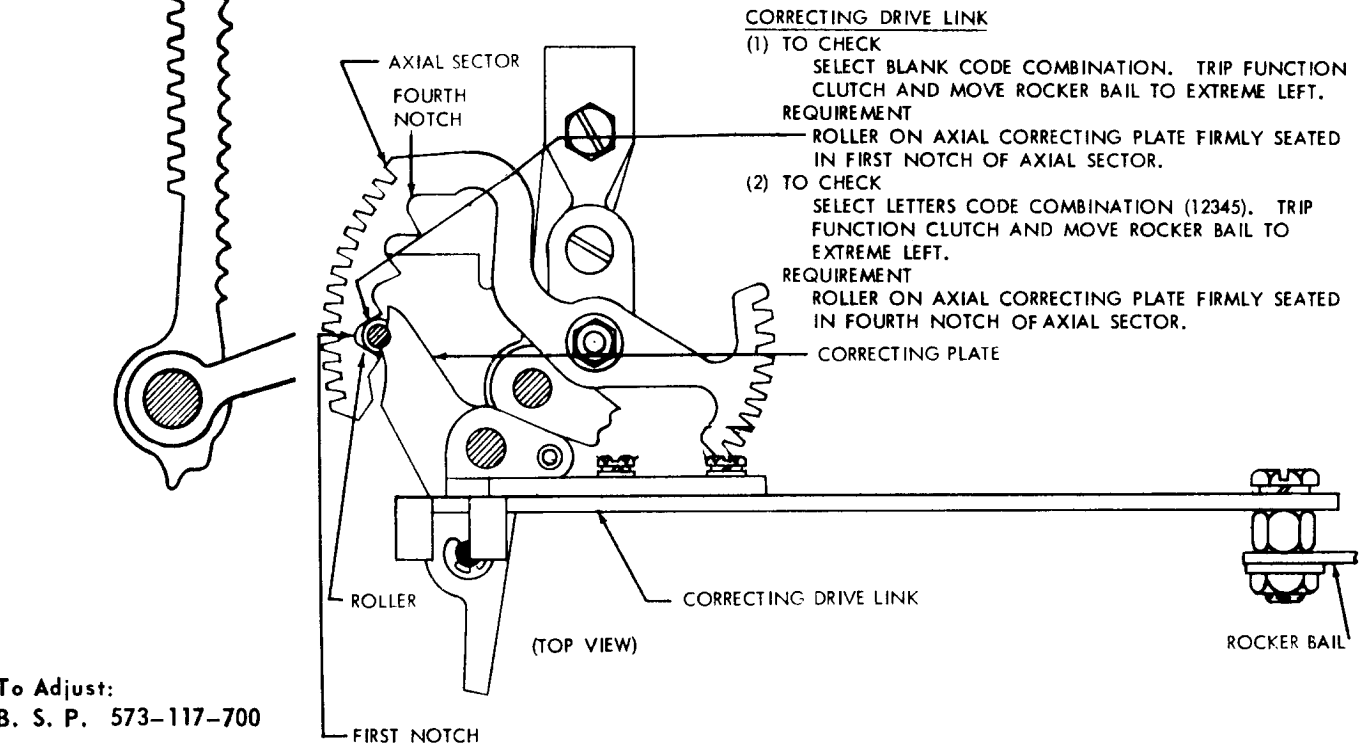
WITH UNIT IN FIGURES CONDITION, SELECT NO. 9 CODE COMBINATION (---45). TRIP FUNCTION CLUTCH AND POSITION ROCKER BAIL TO EXTREME LEFT. MANUALLY SEAT ROTARY CORRECTING LEVER IN TYPE WHEEL BACK.

REQUIREMENT

SECOND TOOTH FROM TOP OF RACK SEATED BETWEEN LOBES OF CORRECTING LEVER.

(2) TO CHECK

IN A MANNER SIMILAR TO THAT DESCRIBED ABOVE CHECK ENGAGEMENT OF FIFTH TOOTH (--34- CODE COMBINATION SELECTED IN FIGURES CONDITION), NINTH TOOTH (---4- CODE COMBINATION SELECTED IN LETTERS CONDITION) AND SIXTEENTH TOOTH (--3-5 CODE COMBINATION SELECTED IN LETTERS CONDITION).



CORRECTING DRIVE LINK

(1) TO CHECK

SELECT BLANK CODE COMBINATION. TRIP FUNCTION CLUTCH AND MOVE ROCKER BAIL TO EXTREME LEFT.

REQUIREMENT

ROLLER ON AXIAL CORRECTING PLATE FIRMLY SEATED IN FIRST NOTCH OF AXIAL SECTOR.

(2) TO CHECK

SELECT LETTERS CODE COMBINATION (12345). TRIP FUNCTION CLUTCH AND MOVE ROCKER BAIL TO EXTREME LEFT.

REQUIREMENT

ROLLER ON AXIAL CORRECTING PLATE FIRMLY SEATED IN FOURTH NOTCH OF AXIAL SECTOR.

CORRECTING PLATE

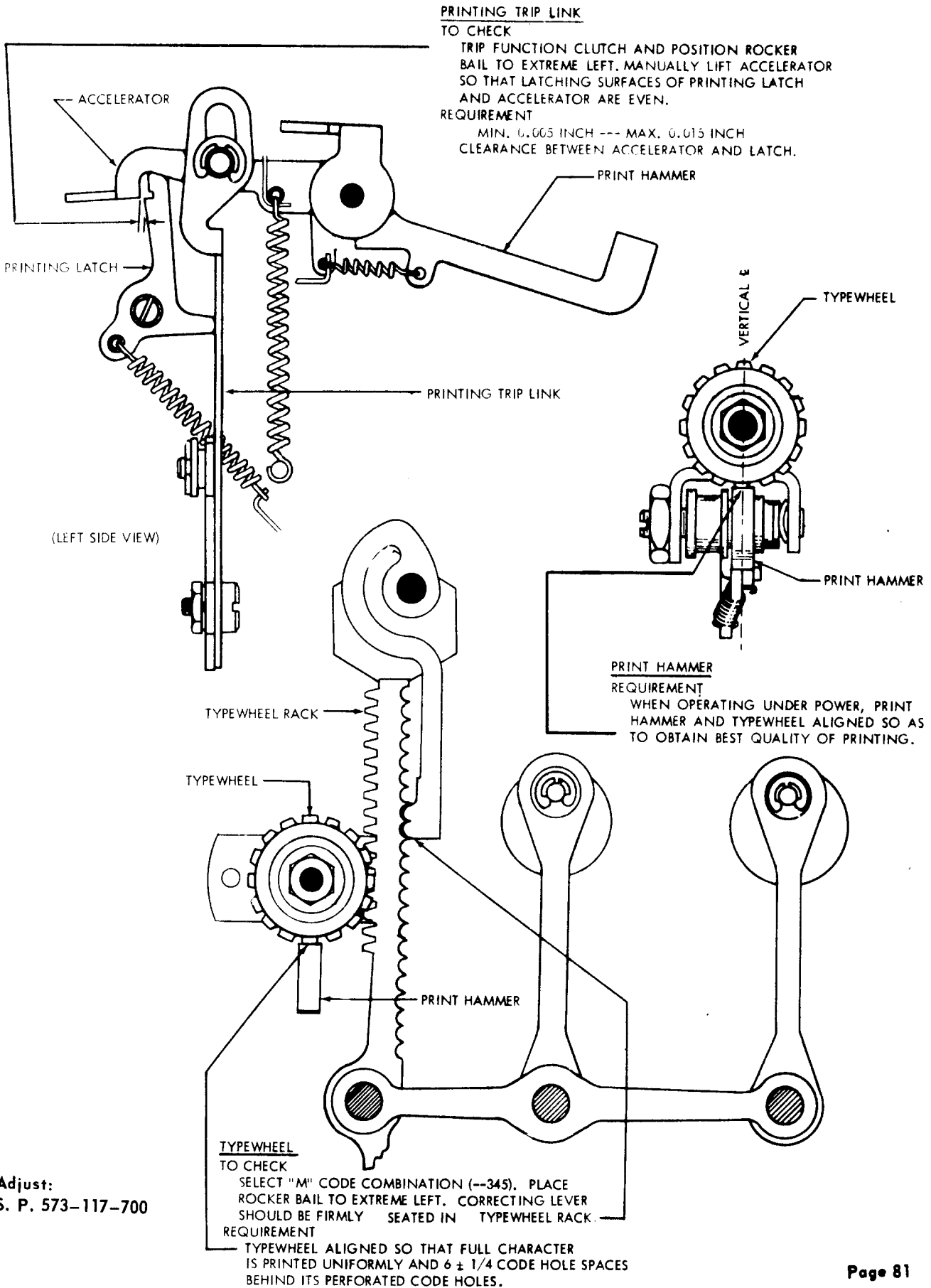
(TOP VIEW)

ROCKER BAIL

To Adjust:
B. S. P. 573-117-700

PRINTING MECHANISM

28 TYPE ONLY



PRINTING TRIP LINK
TO CHECK
TRIP FUNCTION CLUTCH AND POSITION ROCKER BAIL TO EXTREME LEFT. MANUALLY LIFT ACCELERATOR SO THAT LATCHING SURFACES OF PRINTING LATCH AND ACCELERATOR ARE EVEN.
REQUIREMENT
MIN. 0.005 INCH --- MAX. 0.015 INCH
CLEARANCE BETWEEN ACCELERATOR AND LATCH.

PRINT HAMMER
REQUIREMENT
WHEN OPERATING UNDER POWER, PRINT HAMMER AND TYPEWHEEL ALIGNED SO AS TO OBTAIN BEST QUALITY OF PRINTING.

TYPEWHEEL
TO CHECK
SELECT "M" CODE COMBINATION (--345). PLACE ROCKER BAIL TO EXTREME LEFT. CORRECTING LEVER SHOULD BE FIRMLY SEATED IN TYPEWHEEL RACK.
REQUIREMENT
TYPEWHEEL ALIGNED SO THAT FULL CHARACTER IS PRINTED UNIFORMLY AND $6 \pm 1/4$ CODE HOLE SPACES BEHIND ITS PERFORATED CODE HOLES.

To Adjust:
B. S. P. 573-117-700