

15 TELETYPEWRITER KEYBOARD
REQUIREMENTS AND ADJUSTMENTS

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1. GENERAL

1.01 This section contains the requirements and adjusting procedures for the 15 teletypewriter keyboard. This section and the section covering the teletypewriter general requirements provide the necessary information for maintenance of the 15 teletypewriter keyboard.

1.02 This section is reissued to provide improved adjustments for the sending contacts.

1.03 For orientation range and distortion tolerance requirements, refer to the section covering teletypewriter station tests, orientation and distortion tests.

2. REQUIREMENTS AND ADJUSTMENTS

Note for Repeat Operation: Where it is desired on certain private-wire services to send a signal character repeatedly as long as the key is held depressed, the tripoff-pawl eccentric is removed and four TP41663 washers are clamped under the stop plate, two on each mounting screw, to prevent the tripoff pawl disengaging the intermediate pawl. (When not in use, these washers are normally stored under the heads of the screws which mount the TP7387 brace to the TP7382 front bracket.) In addition, a TP74291 bracket should be mounted under the stop-plate rear mounting screw, in place of the TP7002 washer. Adjust the bracket to prevent the tripoff pawl from slipping laterally out of engagement with the intermediate pawl, without introducing bind. When the keyboards are arranged for repeat key action, the requirement in 2.16 on the tripoff-pawl eccentric should be disregarded and the tripoff-pawl spring should be twisted one-half turn to make the pawl bear against the vertical bracket. (The adjustments given hereafter are for keyboards with nonrepeat action.)

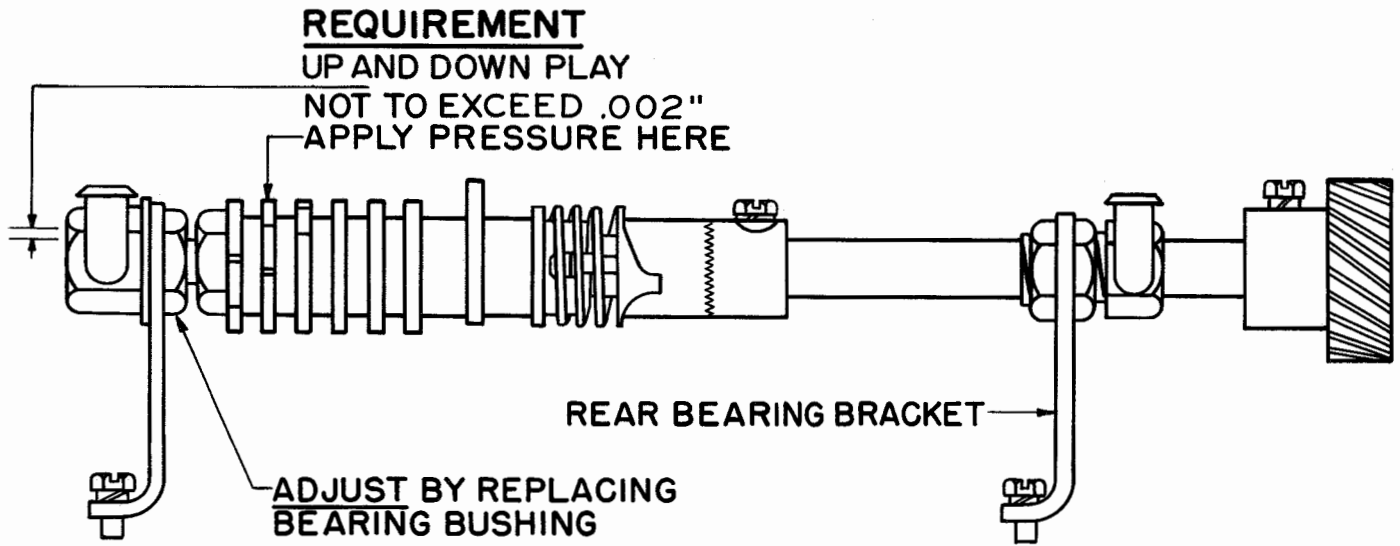
2.01 Shaft Mounting

Note: See 2.02 for illustration.

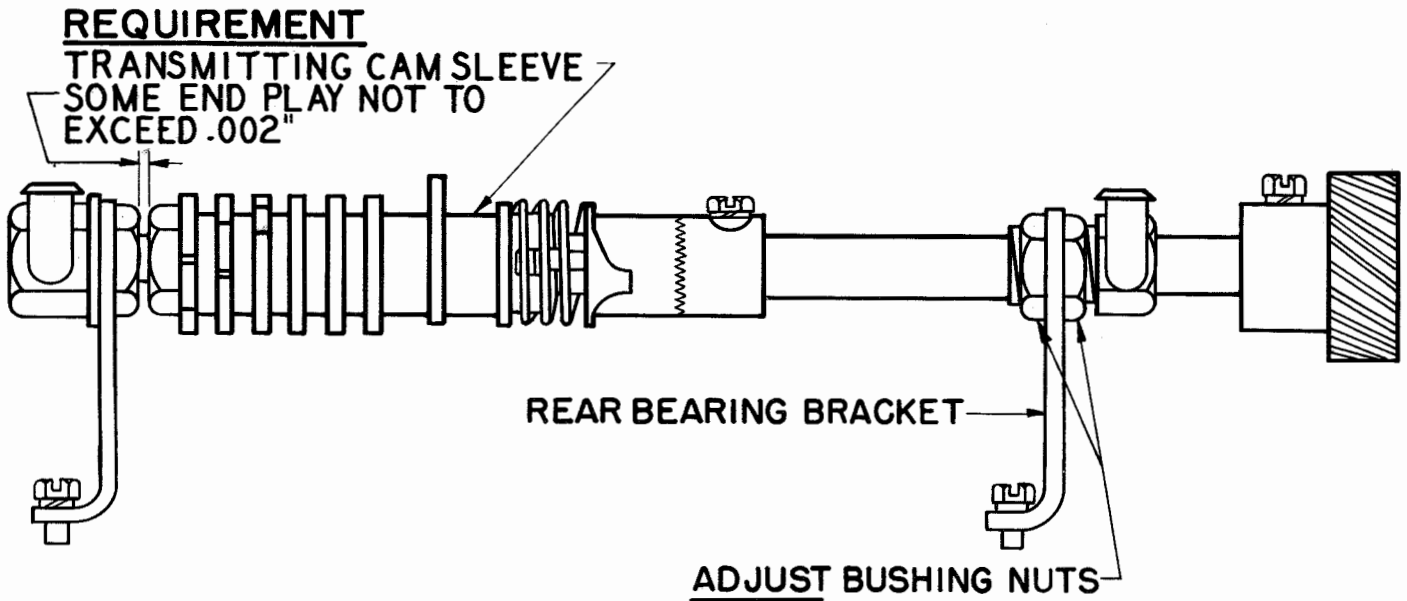
Requirement: Shaft should turn freely in its bearings without bind when the contact lever and lock loop are held away from the cam shaft and the throwout lever is held released.

Adjust: by shifting the rear bearing bracket.

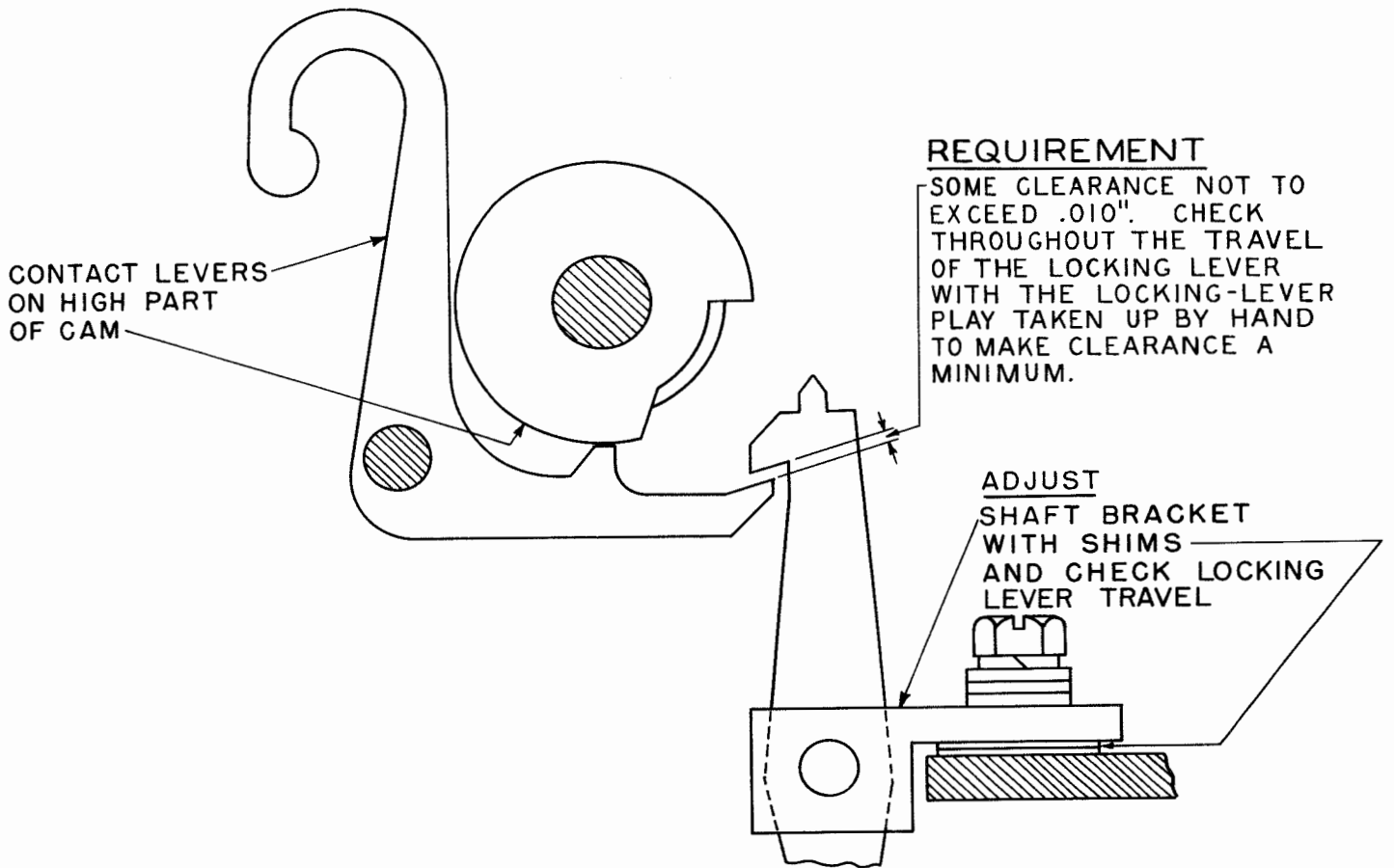
2.02 Shaft Front Bearing



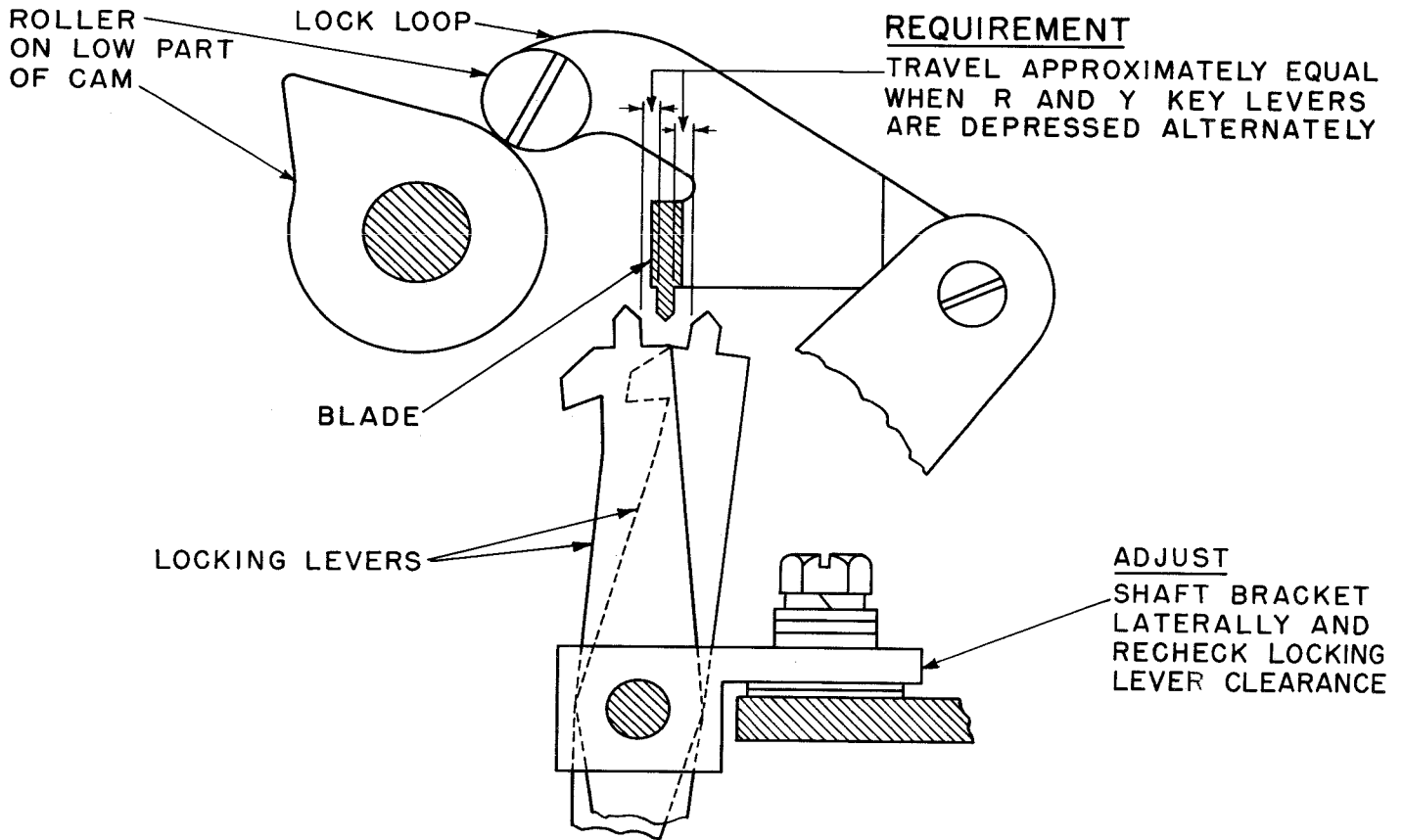
2.03 Transmitting Cam-sleeve Endplay



2.04 Locking-lever Clearance



2.05 Locking-lever Travel



2.06 Lock-loop Roller

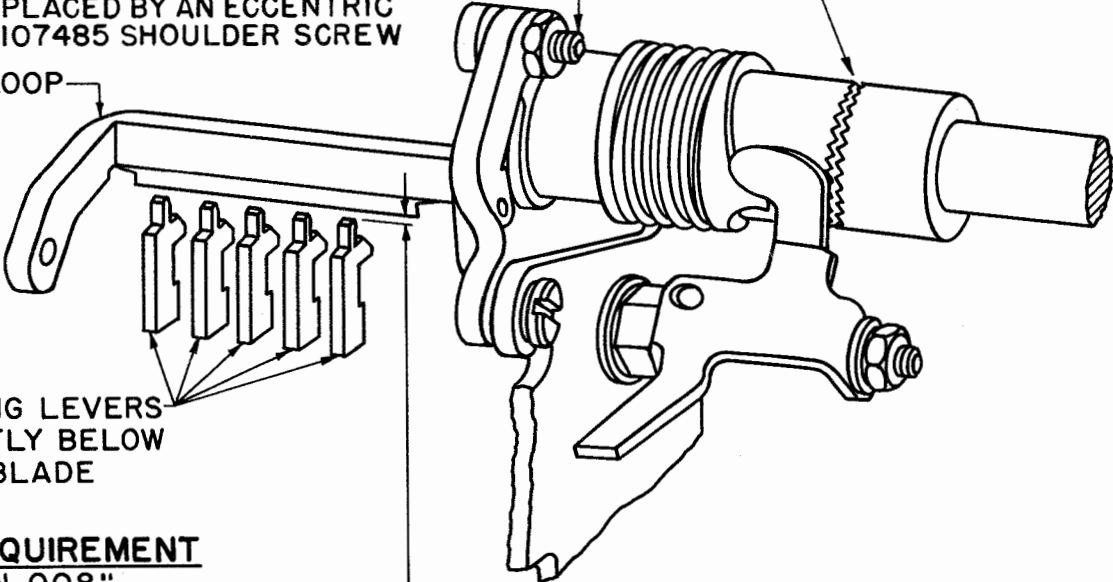
ADJUST ROLLER STUD
NOTE: IF ADJUSTMENT CANNOT BE MET,
THE CONCENTRIC TP6800 SHOULDER
SCREW USED TO MOUNT THE TP92511
LOCK LOOP ROLLER SHOULD BE
REPLACED BY AN ECCENTRIC
TP107485 SHOULDER SCREW

CAM SLEEVE TURNED BY
HAND UNTIL CLUTCH
IS FULLY DISENGAGED

LOCK LOOP

LOCKING LEVERS
DIRECTLY BELOW
LOOP BLADE

REQUIREMENT
MIN. .008" CLEARANCE
MAX. .015" TO NEAREST LEVER

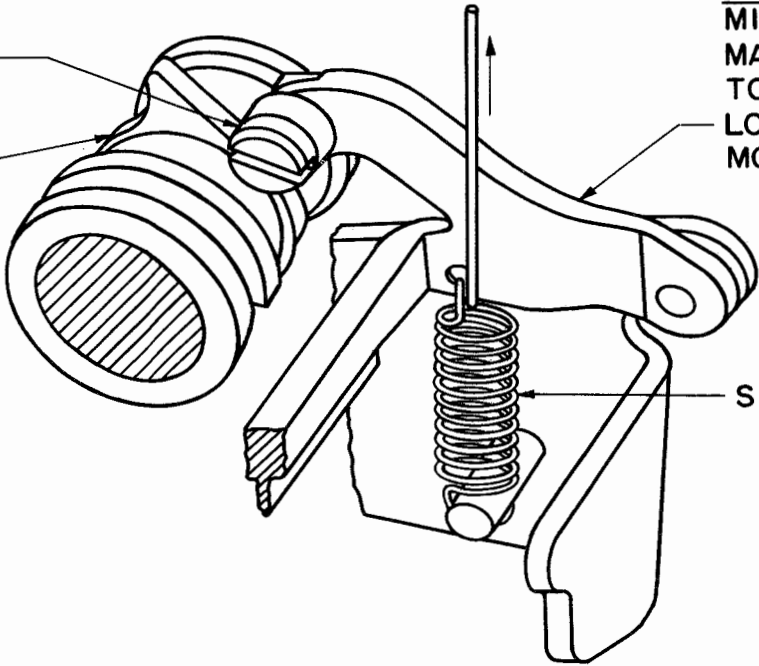


2.07 Lock-loop Spring

REQUIREMENT
MIN. 4 OZ.
MAX. 5 OZ.
TO START
LOCK LOOP
MOVING

ROLLER
ON LOW
PART OF
CAM

SPRING



2.08 Sending Contact Gap

REQUIREMENT

IF SIGNAL MEASURING
DEVICE IS AVAILABLE,
CONTACTS SHOULD BE
ADJUSTED TO GIVE BEST
SIGNALS WITHIN
FOLLOWING LIMITS

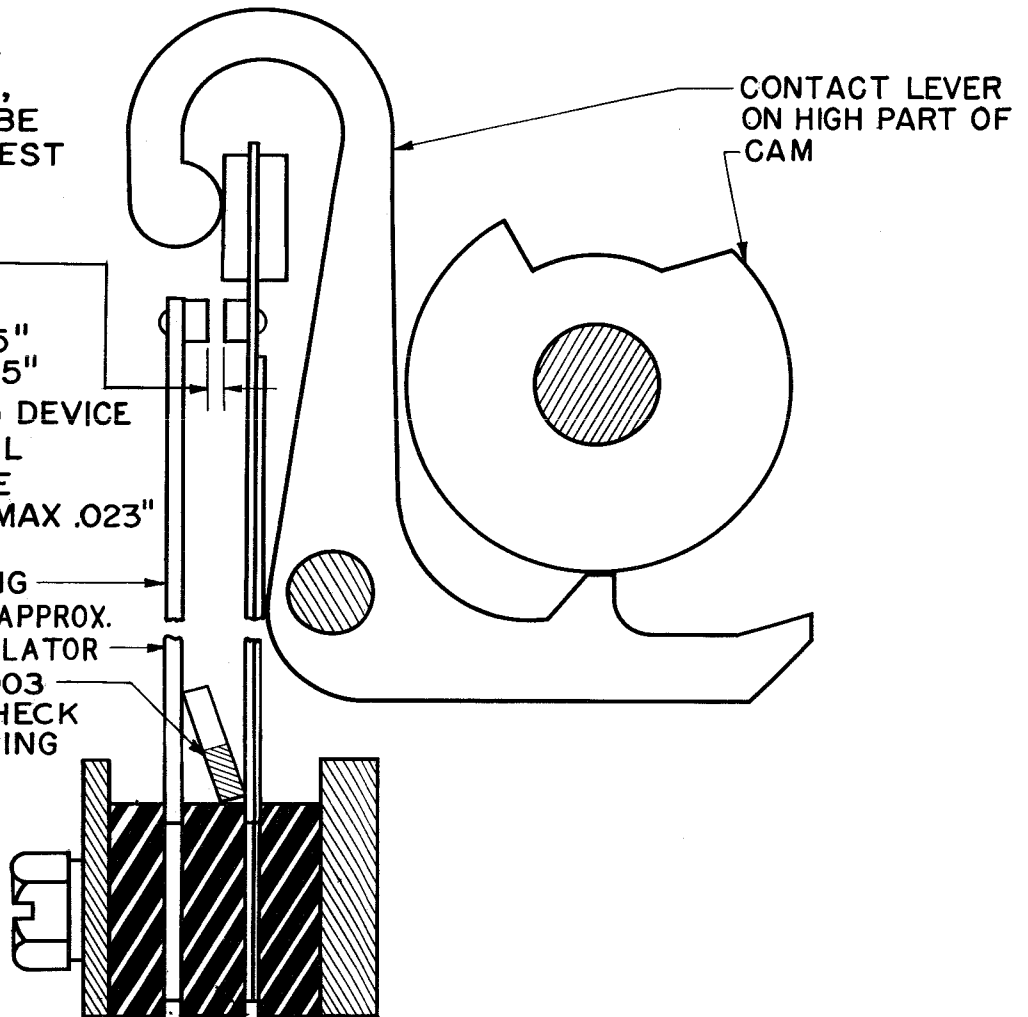
CODE CONTACTS { MIN .017"
MAX .025"

START-STOP CONTACTS { MIN .015"
MAX .025"

IF SIGNAL MEASURING DEVICE
IS NOT AVAILABLE ALL
CONTACTS SHOULD BE
ADJUSTED TO MIN .017", MAX .023"

ADJUST

SHORT SPRING
BY BENDING APPROX.
1/4" FROM INSULATOR
USING TP72003
TOOL AND CHECK
CONTACT SPRING
PRESSURE



2.09 Sending Contact Pressure

REQUIREMENT

MIN. $4\frac{1}{2}$ OZ.

MAX. $5\frac{1}{2}$ OZ.

TO OPEN CONTACTS

ADJUST

LONG SPRING

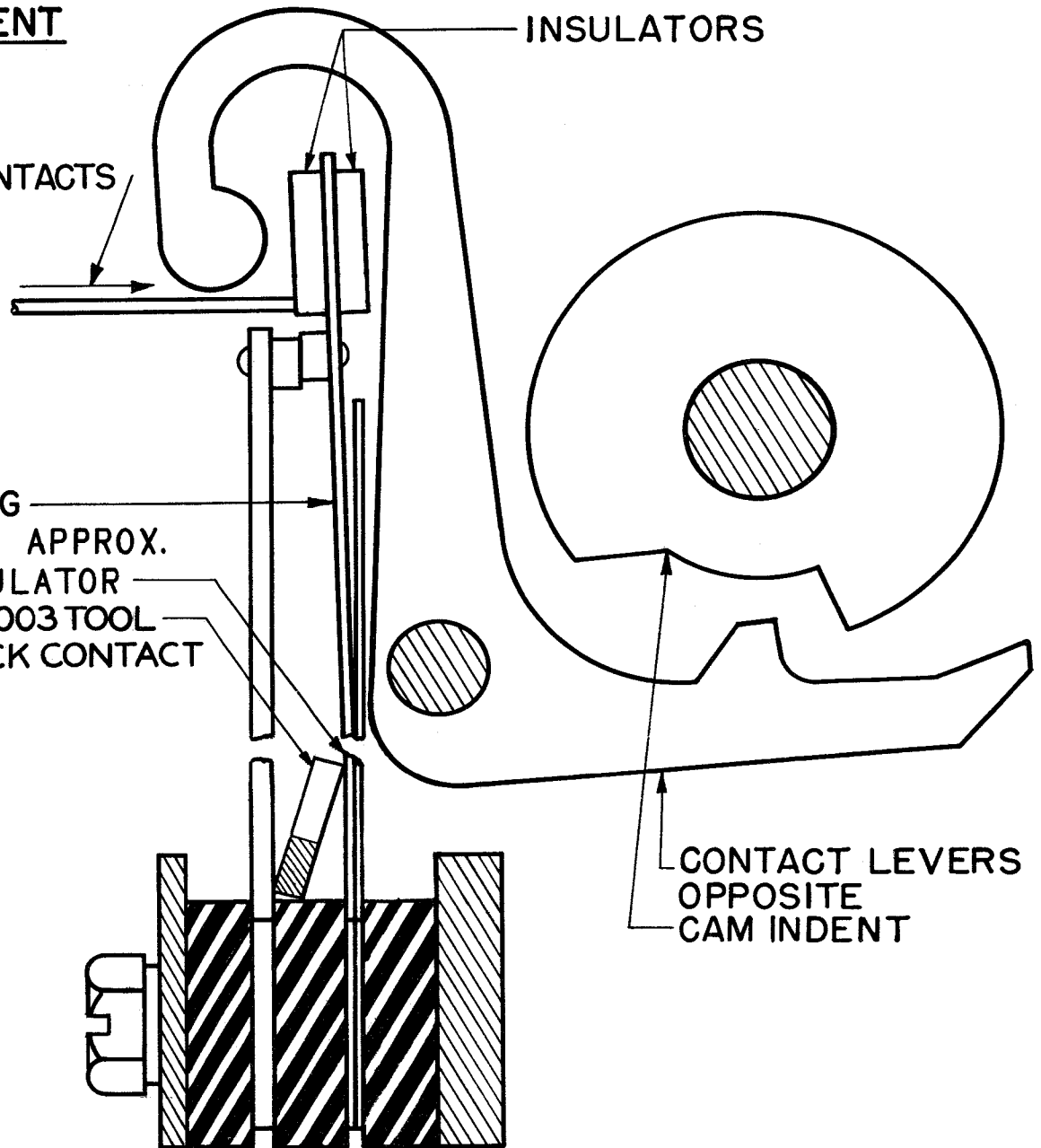
BY BENDING APPROX.

$\frac{1}{4}$ " FROM INSULATOR

USING TP 72003 TOOL

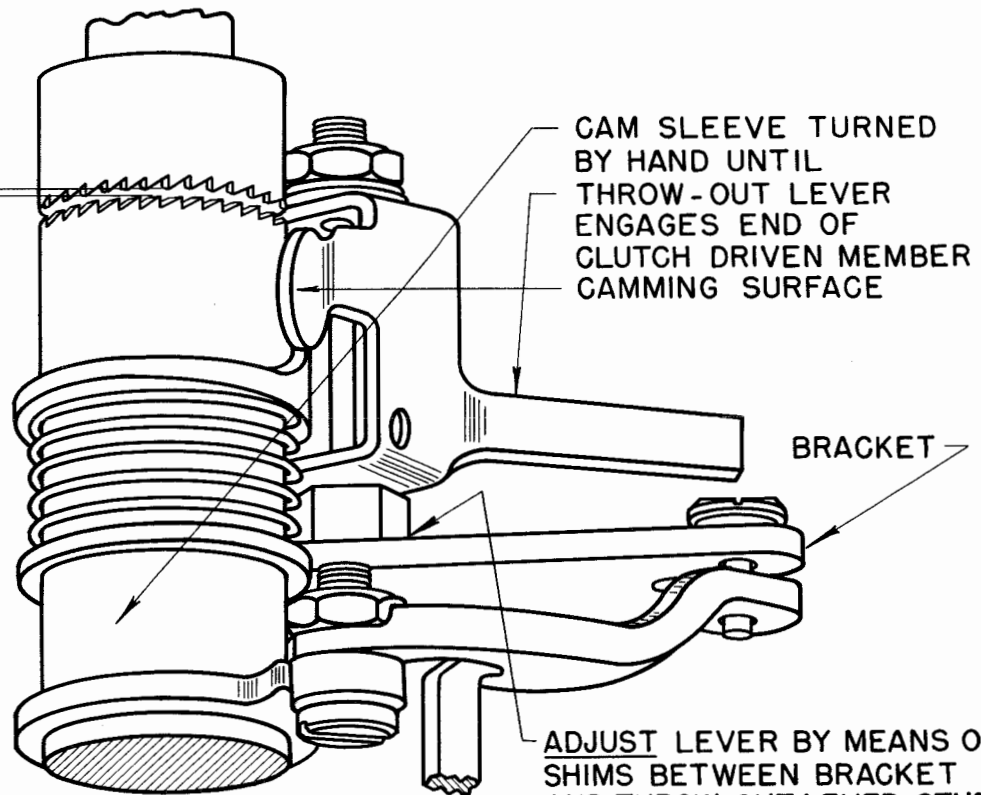
AND RECHECK CONTACT

GAP

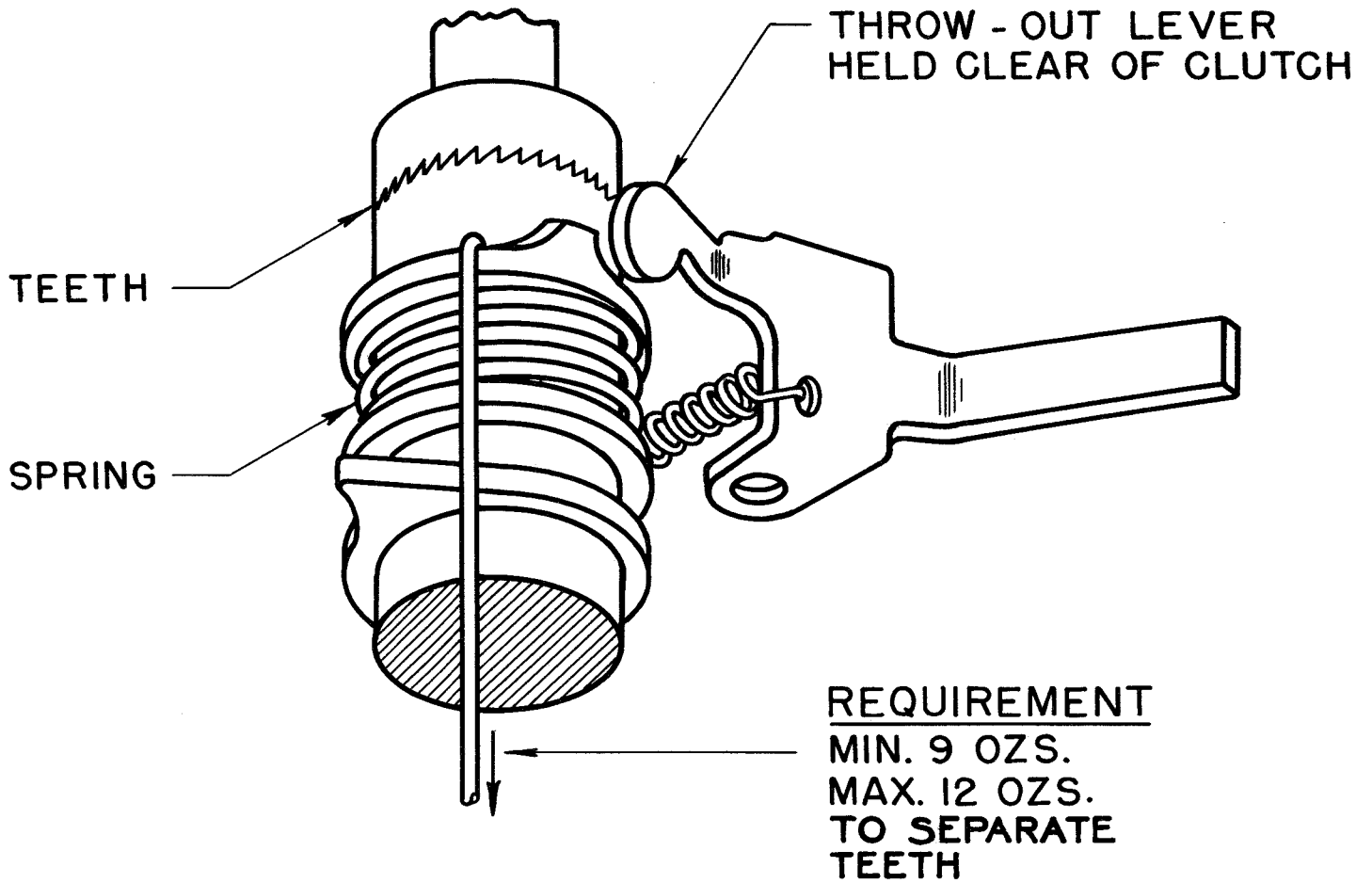


2.10 Clutch Teeth

REQUIREMENT
MIN. .005"
MAX. .015"



2.11 Clutch Spring



2.12 Universal Bar Extension

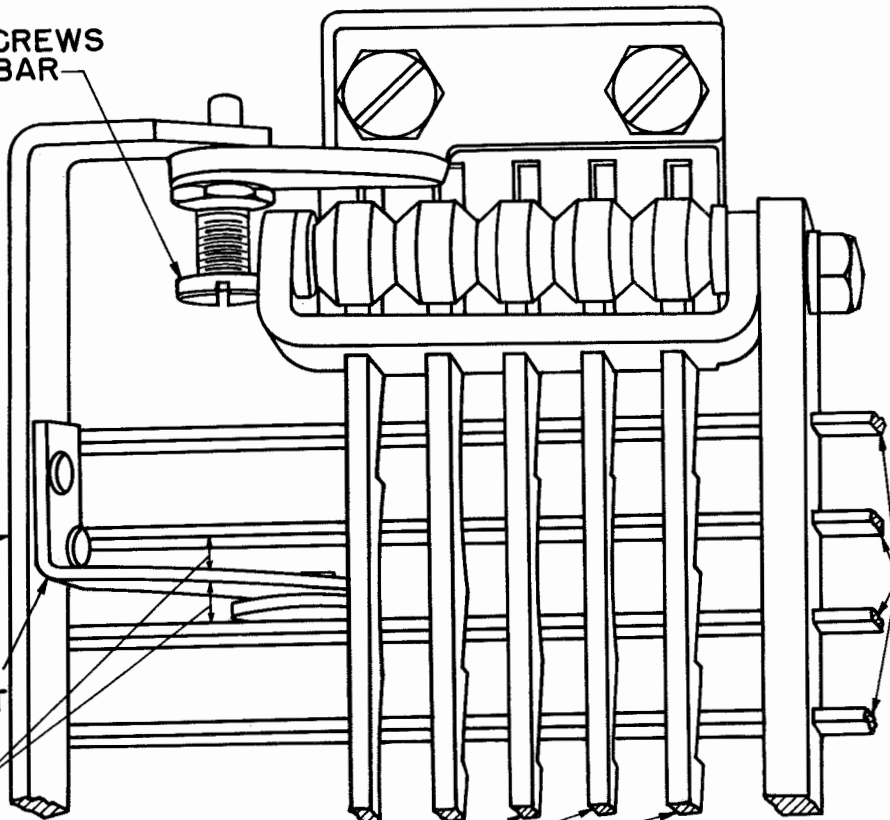
NOTE: APPLIES ONLY TO UNITS HAVING ADJUSTABLE PIVOT SCREWS FOR MOUNTING UNIVERSAL BAR.

ADJUST PIVOT SCREWS
AT EACH END OF BAR

REQUIREMENT
UNIVERSAL BAR
SHALL HAVE END
PLAY NOT TO
EXCEED .010"
WHEN EXTENSION
CLEARS ADJACENT
KEY LEVERS
APPROXIMATELY
EQUALLY.

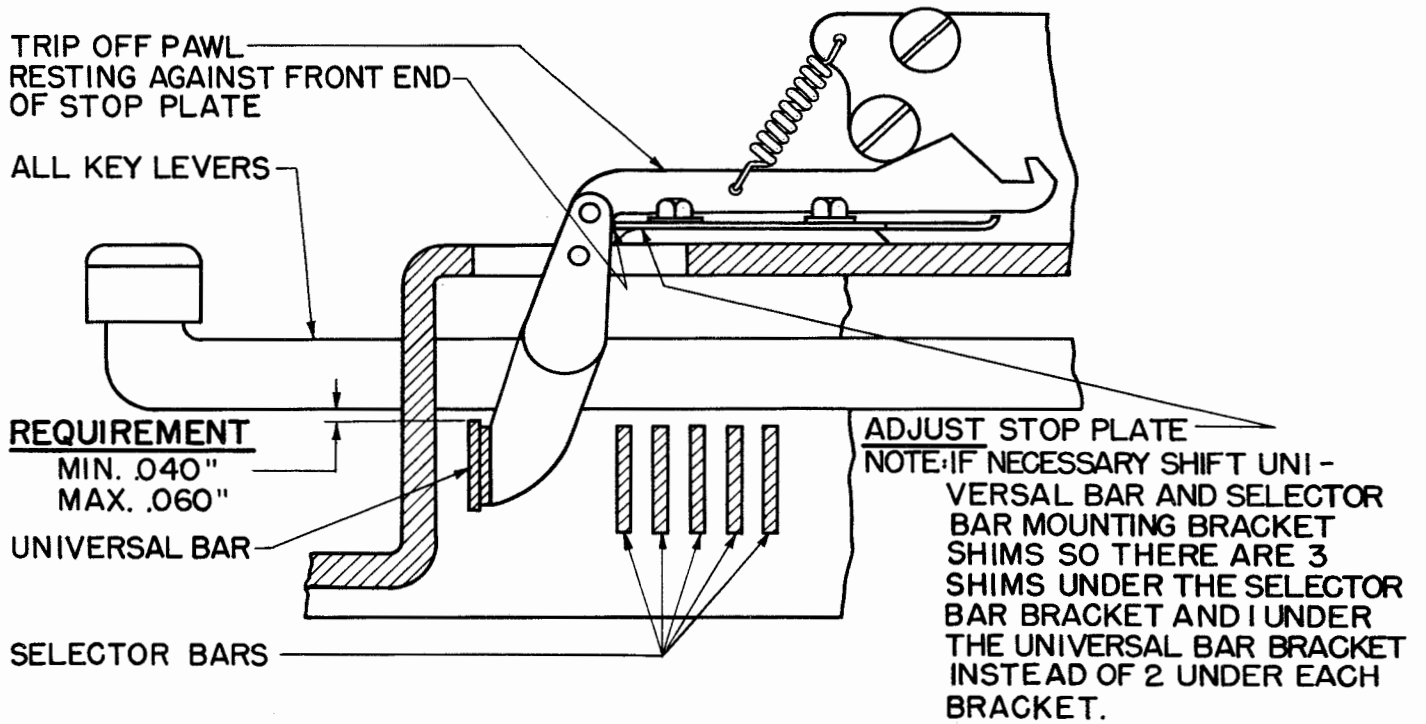
SELECTOR BARS

KEY LEVERS



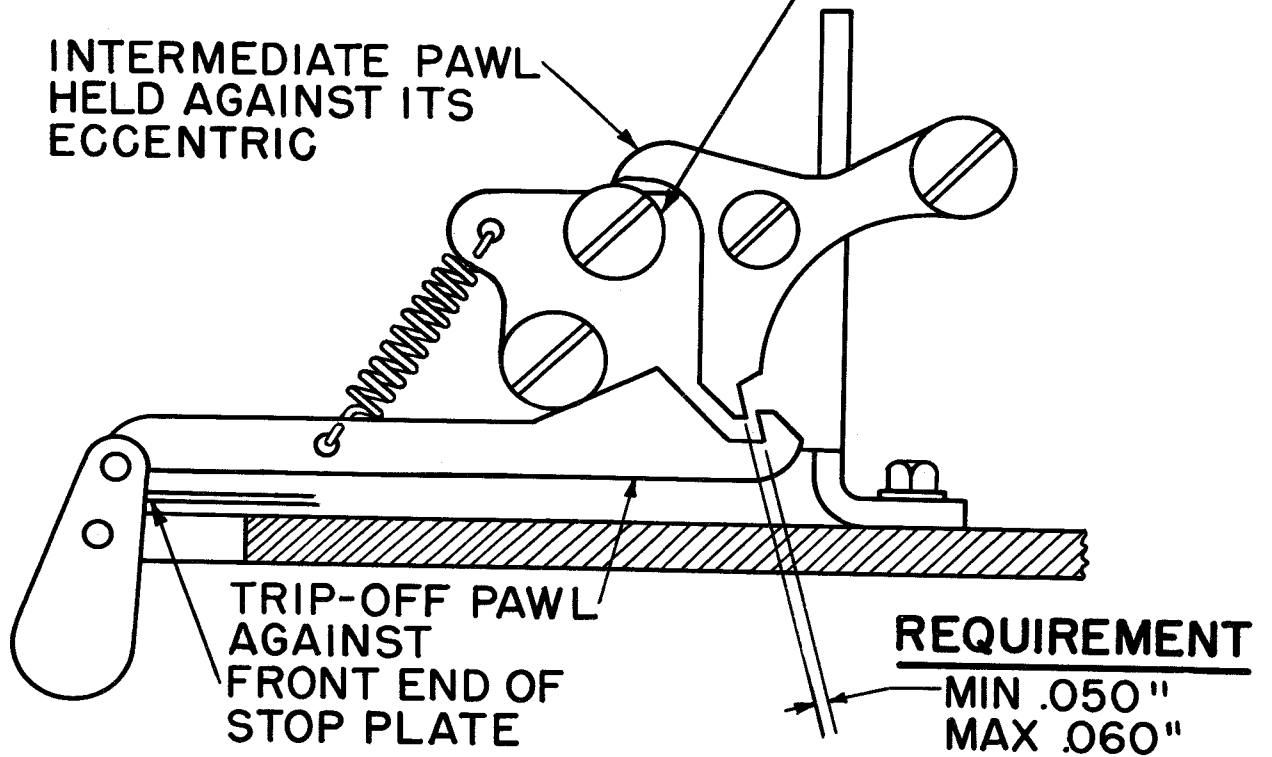
2.13 Universal Bar Clearance

Note: The maximum clearance between the spacer key lever and the universal bar may be 0.070 inch.



2.14 Intermediate Pawl

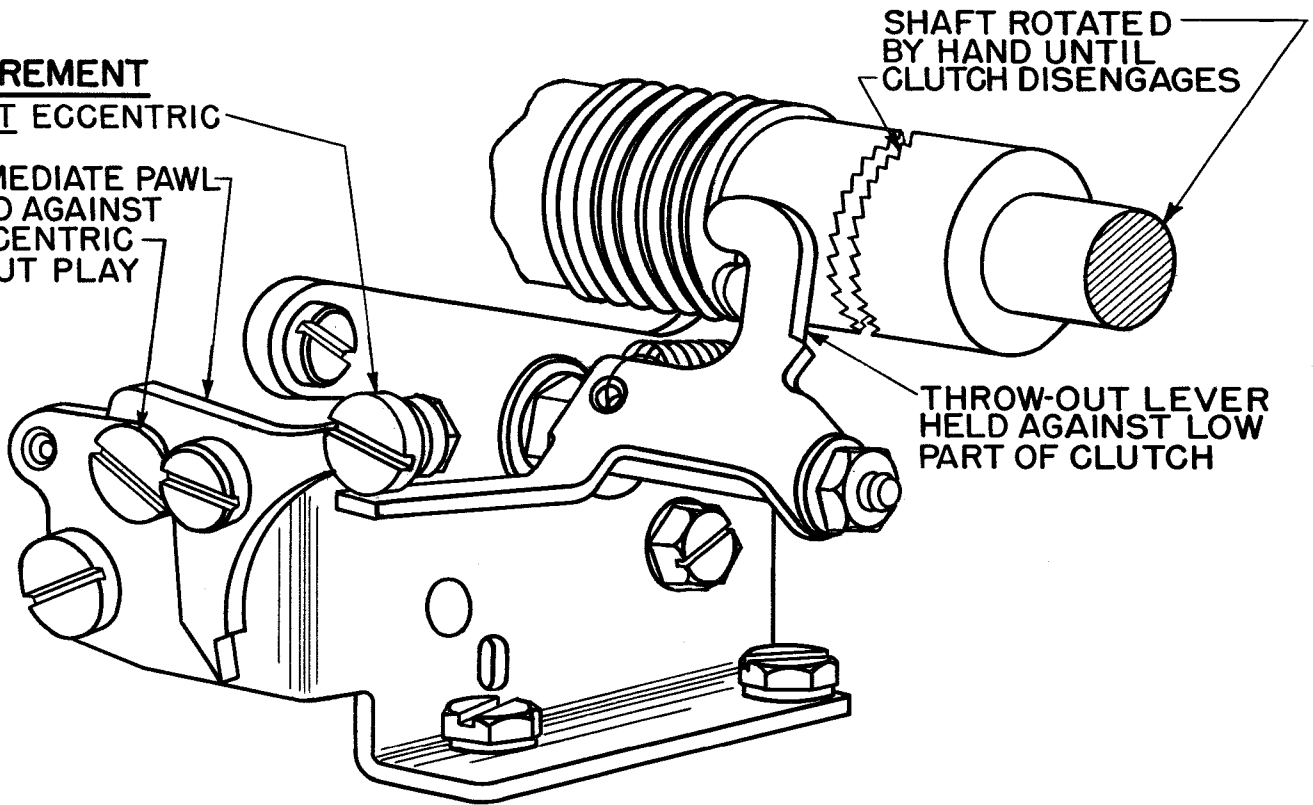
ADJUST INTERMEDIATE PAWL ECCENTRIC
KEEPING CENTER OF ECCENTRIC HEAD
TO FRONT OF SCREW BODY



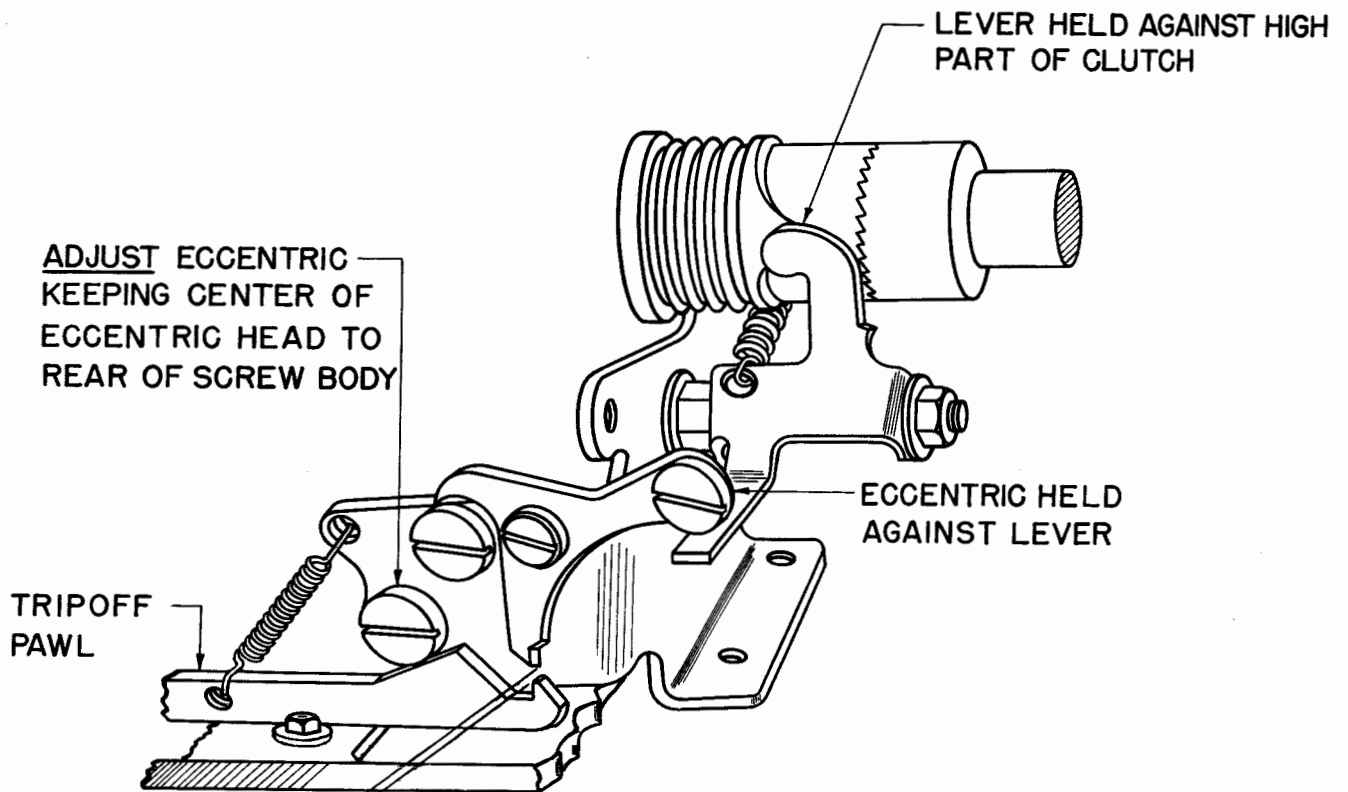
2.15 Throwout-lever Eccentric

REQUIREMENT

ADJUST ECCENTRIC
SO
INTERMEDIATE PAWL
IS HELD AGAINST
ITS ECCENTRIC
WITHOUT PLAY



2.16 Tripoff-pawl Eccentric



REQUIREMENT

SOME CLEARANCE, NOT TO EXCEED .004" WHEN ANY KEY LEVER IS DEPRESSED SLOWLY WITH LOCK LOOP LIFTED TO CLEAR LOCKING LEVERS. SEE 2.06 FOR IDENTIFICATION OF PARTS.

Note: Recheck universal bar clearance (2.13).

Requirement: Minimum 0.002 inch clearance between stop plate (not shown in figure) and tripoff pawl with pawl fully operated by keylever.

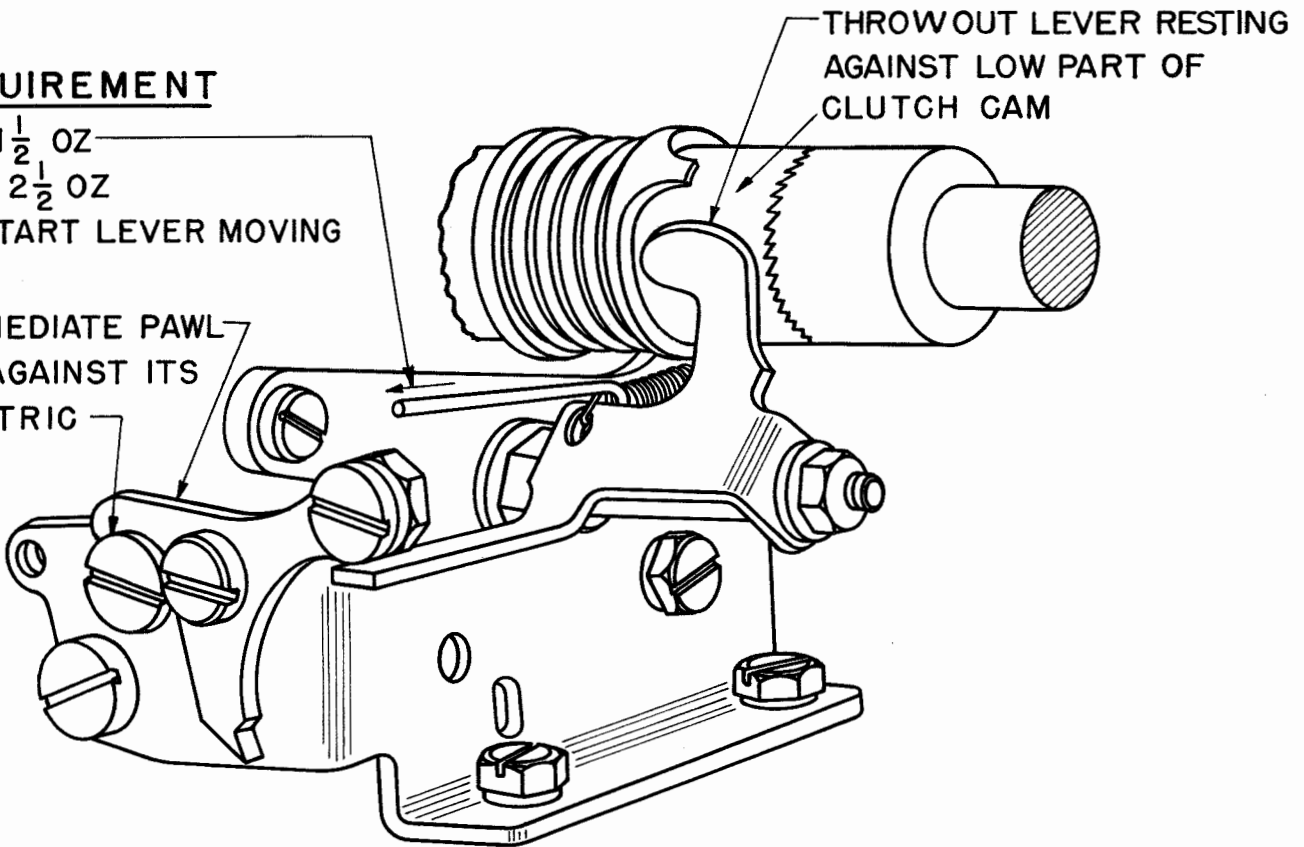
To Adjust: Bend rear end of stop plate.

2.17 Throwout-lever Spring

REQUIREMENT

MIN $1\frac{1}{2}$ OZ
 MAX $2\frac{1}{2}$ OZ
 TO START LEVER MOVING

INTERMEDIATE PAWL
 HELD AGAINST ITS
 ECCENTRIC



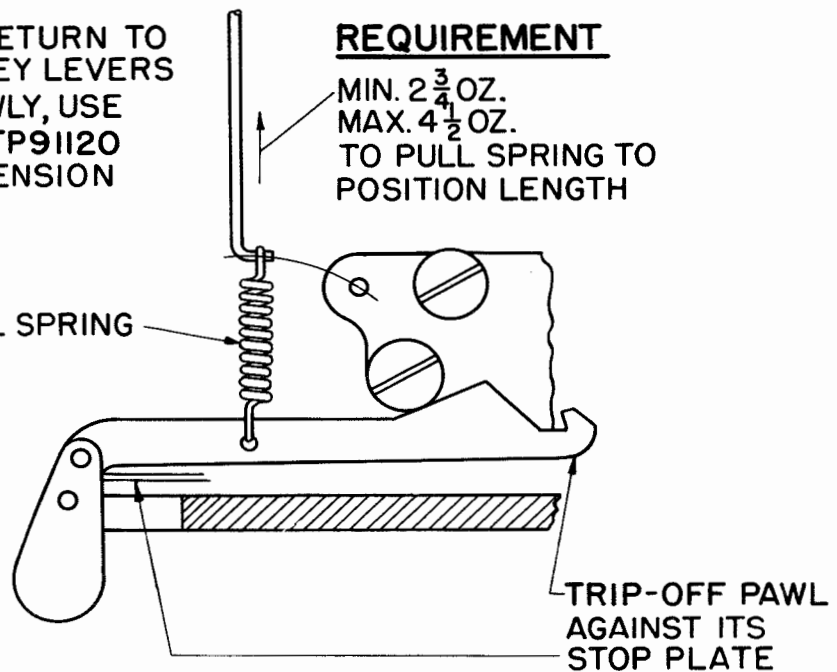
2.18 Tripoff-pawl Spring

NOTE: IF PAWL DOES NOT RETURN TO
 STOP PLATE WHEN KEY LEVERS
 ARE RELEASED SLOWLY, USE
 NEW STYLE SPRING, TP91120
 HAVING A MINIMUM TENSION
 OF $3\frac{1}{2}$ OZ.

REQUIREMENT

MIN. $2\frac{3}{4}$ OZ.
 MAX. $4\frac{1}{2}$ OZ.
 TO PULL SPRING TO
 POSITION LENGTH

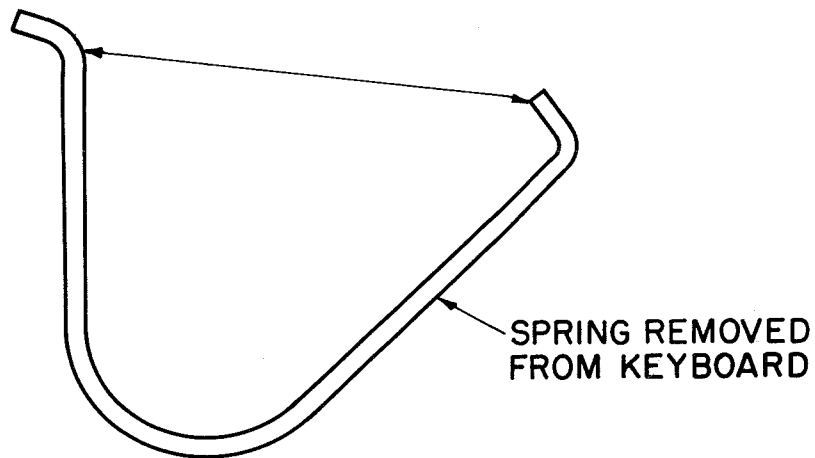
TRIP-OFF PAWL SPRING



2.19 Keylever Springs

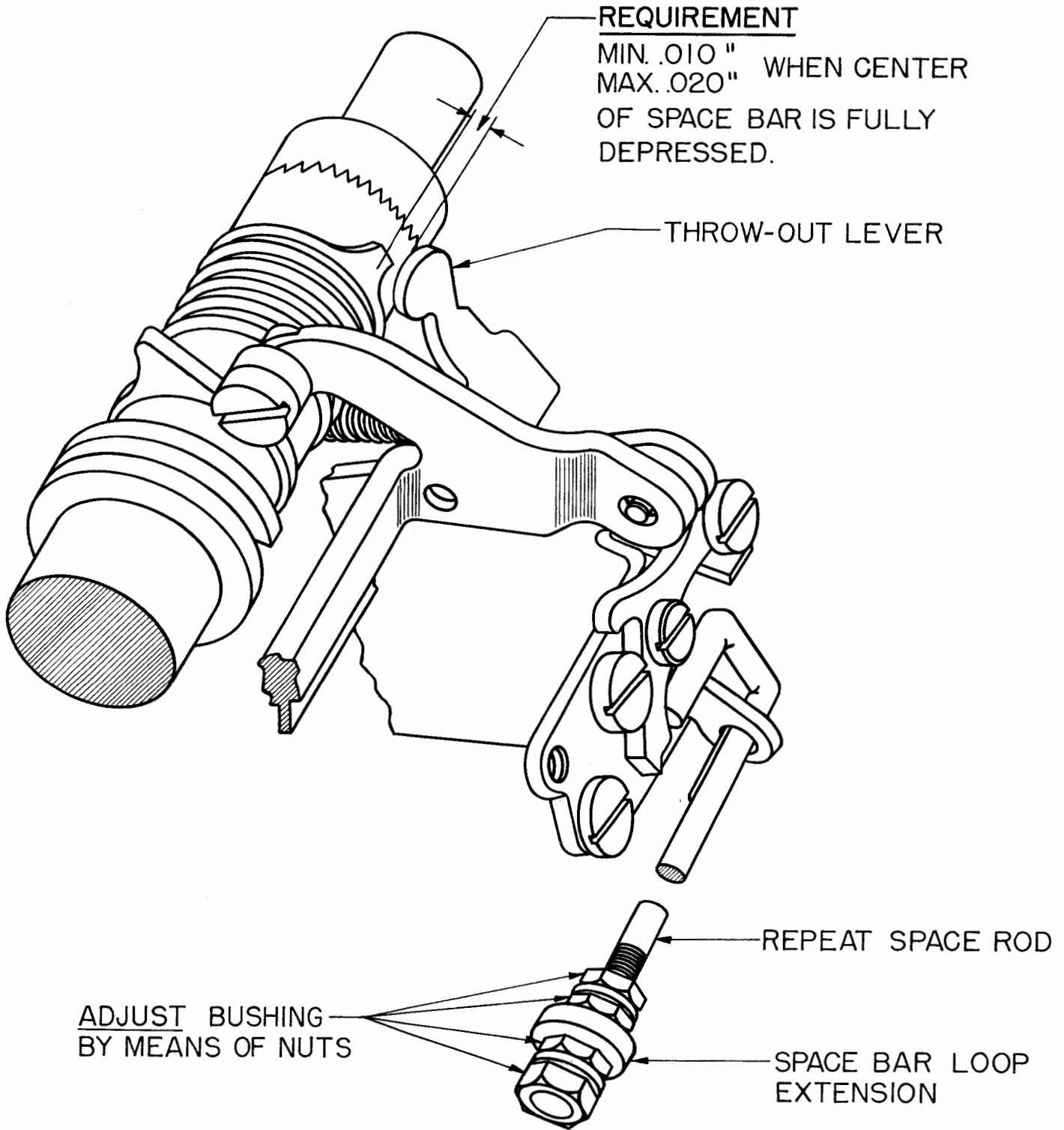
REQUIREMENT

$1\frac{15}{16}$ " FOR SPACE
KEY LEVER SPRINGS
 $1\frac{3}{16}$ " FOR ALL OTHER
KEY LEVER SPRINGS



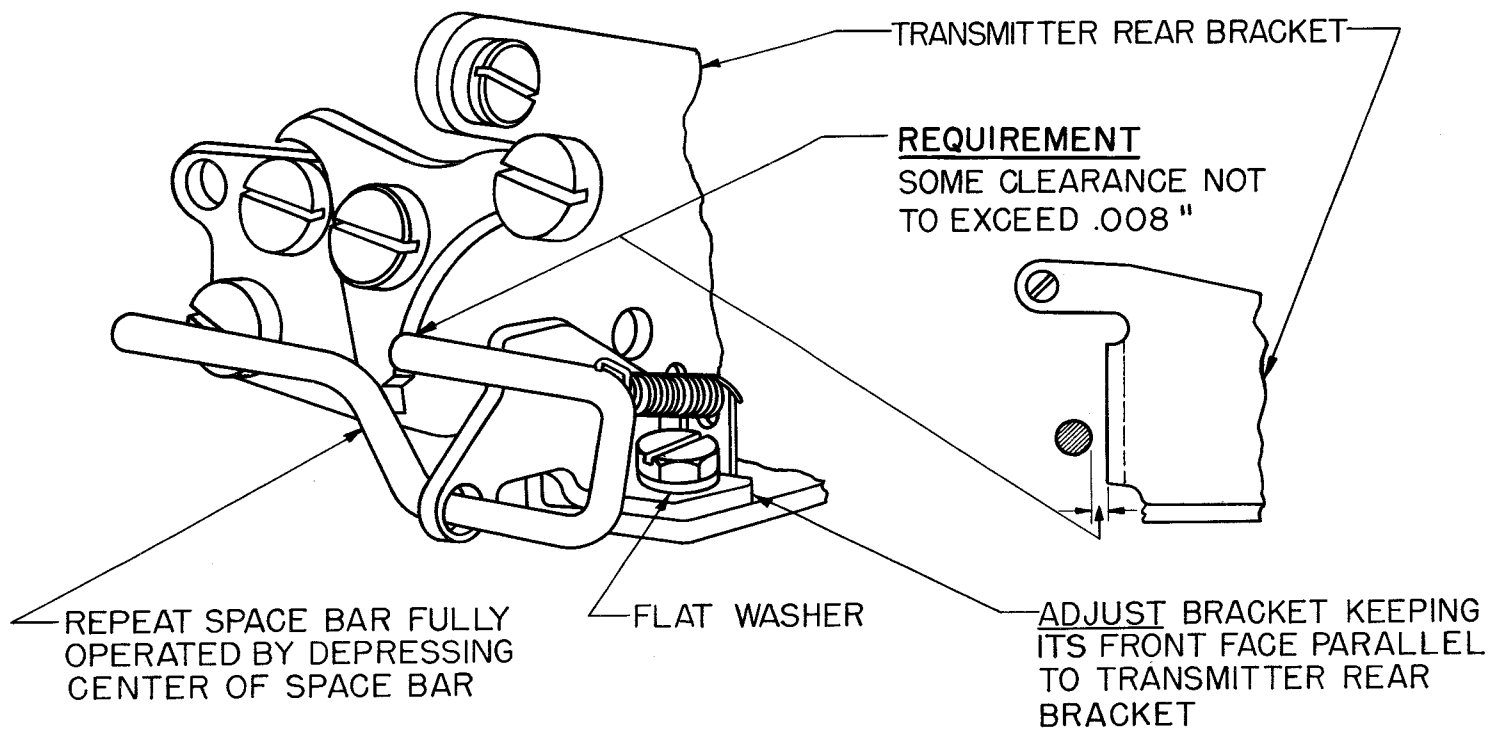
TO ADJUST, BEND SPRING

2.20 Repeat-space Rod



2. 21 Repeat-space-rod Bracket

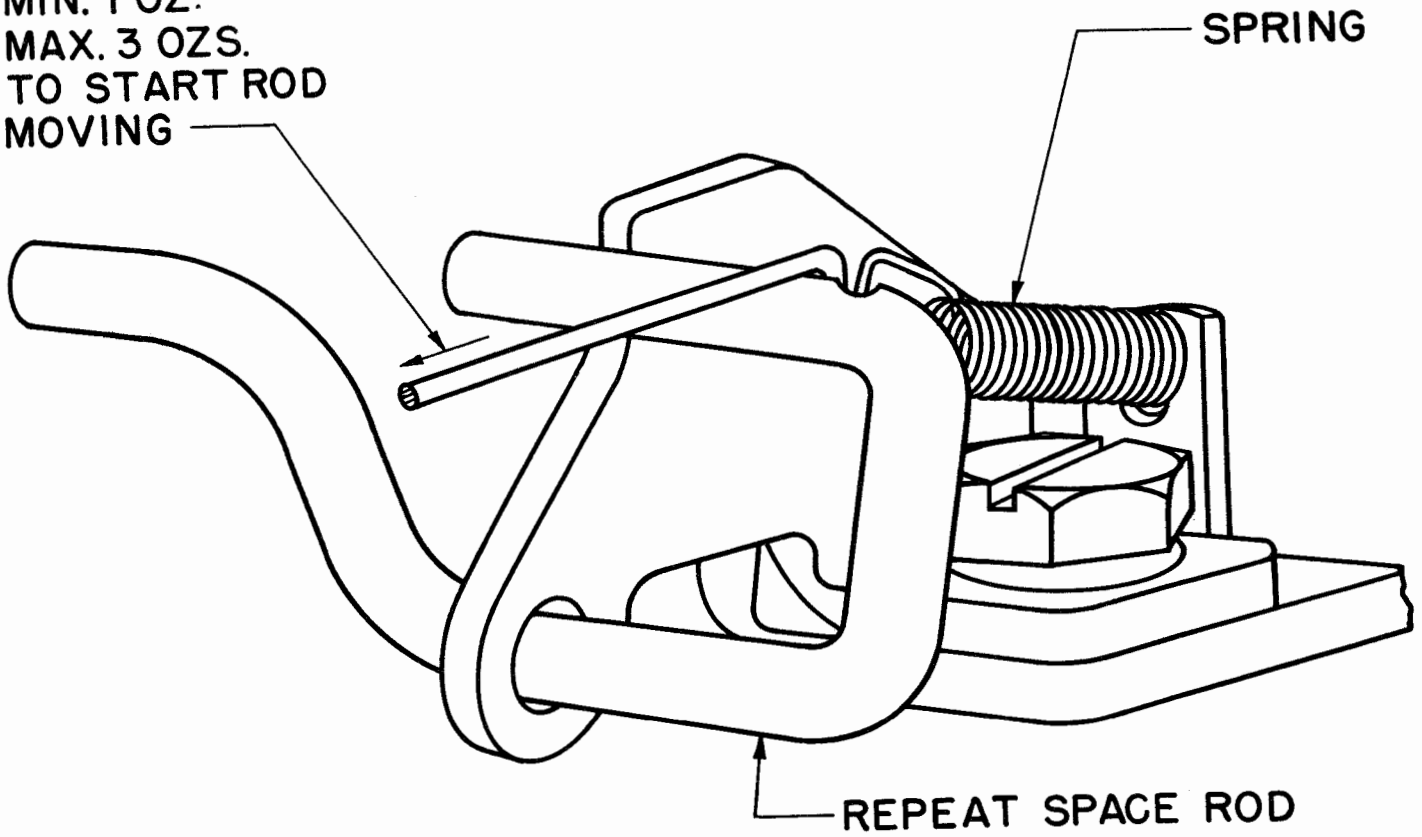
NOTE: APPLIES ONLY TO UNIT EQUIPPED WITH
ADJUSTABLE BRACKETS HAVING FLAT
WASHER UNDER MOUNTING SCREW HEAD



2.22 Repeat-space-rod Spring

REQUIREMENT

MIN. 1 OZ.
MAX. 3 OZS.
TO START ROD
MOVING



2.23 Signal-distortion-reducing Mechanism (an Auxiliary Feature)

