

28 TAPE HANDLING STAND (LTHS) AND  
 REPERFORATOR TRANSMITTER BASE (LRXB)

ADJUSTMENTS

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## 1. GENERAL

1.01 This section presents adjustment information for the Teletype Model 28 tape handling stands and reperforator transmitter bases.

1.02 The reperforator transmitter bases covered in this section are used on three different Reperforator Transmitter Sets. These are:

(a) A Standard Speed Reperforator Transmitter Set capable of sending and receiving data at standard line speeds of 60, 75, or 100 words per minute.

(b) A Low to High Speed Reperforator Transmitter Set for receiving data at standard line speeds of 60, 75, or 100 words per minute and transmitting at speeds of up to and including approximately 1000 words per minute.

(c) A High to Low Speed Reperforator Transmitter Set for receiving data at speeds of up to and including approximately 1000 words per minute and transmitting at standard line speeds of 60, 75, and 100 words per minute.

1.03 The standard speed tape handling stand is capable of winding tape at a speed of 200 words per minute and is used in conjunction with the Standard Speed Reperforator Transmitter Set. The high speed tape handling stand is capable of winding tape at a speed of 1000 words per minute and is used on both the Low to High and High to Low Reperforator Transmitter Sets.

Note: Remove power from unit before making any adjustments.

1.04 It is assumed that the mechanisms illustrated in this section are being viewed from a position in front of the equipment, unless the illustrations are specifically labeled otherwise. In the line drawings, fixed pivot points are shown by solid black circles and moveable points are shown by cross-hatched circles. References in the text to left, right, up, down, front, or rear apply to the unit in its normal operating position with the viewer facing the tape storage bin.

1.05 In the adjustments and spring tensions covered in this section, location of clearances, position of parts, and point and angle of scale applications are illustrated by drawings. Requirements and procedures are set forth in the texts that accompany the drawings. A complete adjusting procedure should be read before making the adjustment or checking the spring tension. The adjustments are arranged in a sequence that should be followed if a complete readjustment of the unit were undertaken.

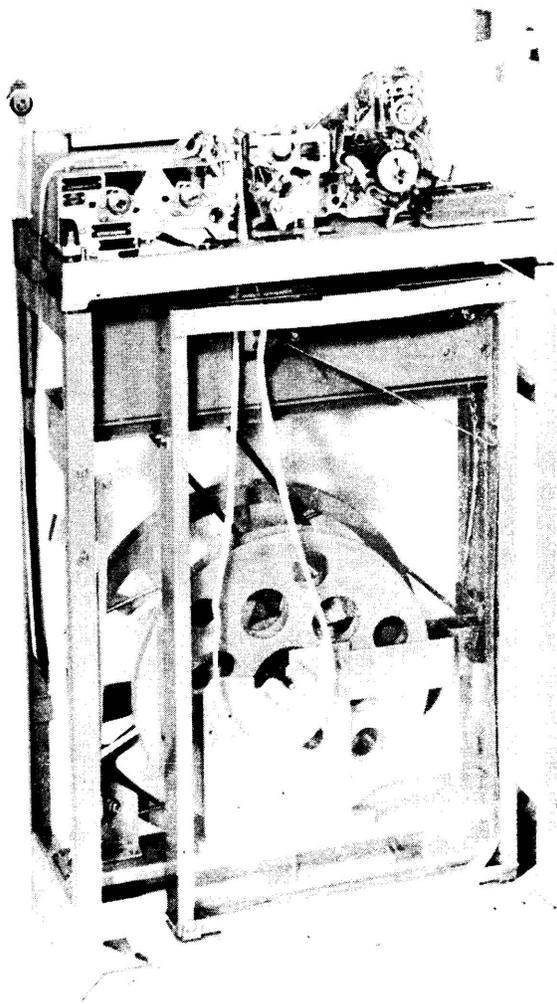
## SECTION 573-104-700TC

1.06 Tools required to make the adjustments and check the spring tensions are not supplied with the equipment, but are listed in Section 570-005-800TC.

1.07 When a part mounted on shims is removed, the number of shims at each mounting screw should be noted so that the identical shim pile-up can be made when the part is remounted. Unless stated otherwise, all nuts and screws that were loosened should be tightened after an adjustment has been made.

1.08 The spring tensions given in this section are indicated values and should be checked with Teletype scales in the positions shown in the drawings. Springs which do not meet the requirements, and for which there are no adjusting procedures, should be discarded and replaced by new springs.

1.09 When rotating the drive shaft gear by hand, the rotation is counterclockwise as viewed from the exposed side of the drive shaft gear.

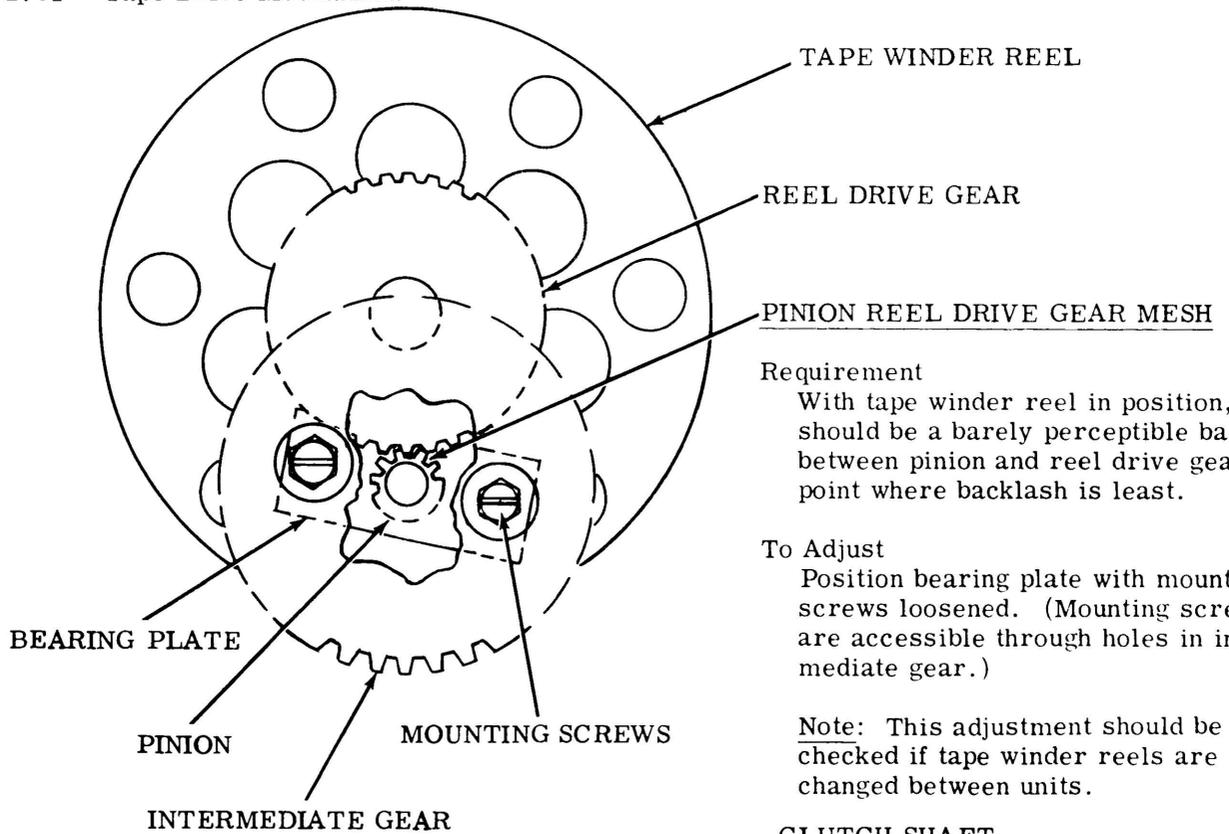


Model 28 Reperforator Transmitter Set

2. ADJUSTMENTS

STANDARD SPEED TAPE HANDLING STAND

2.01 Tape Drive Mechanism



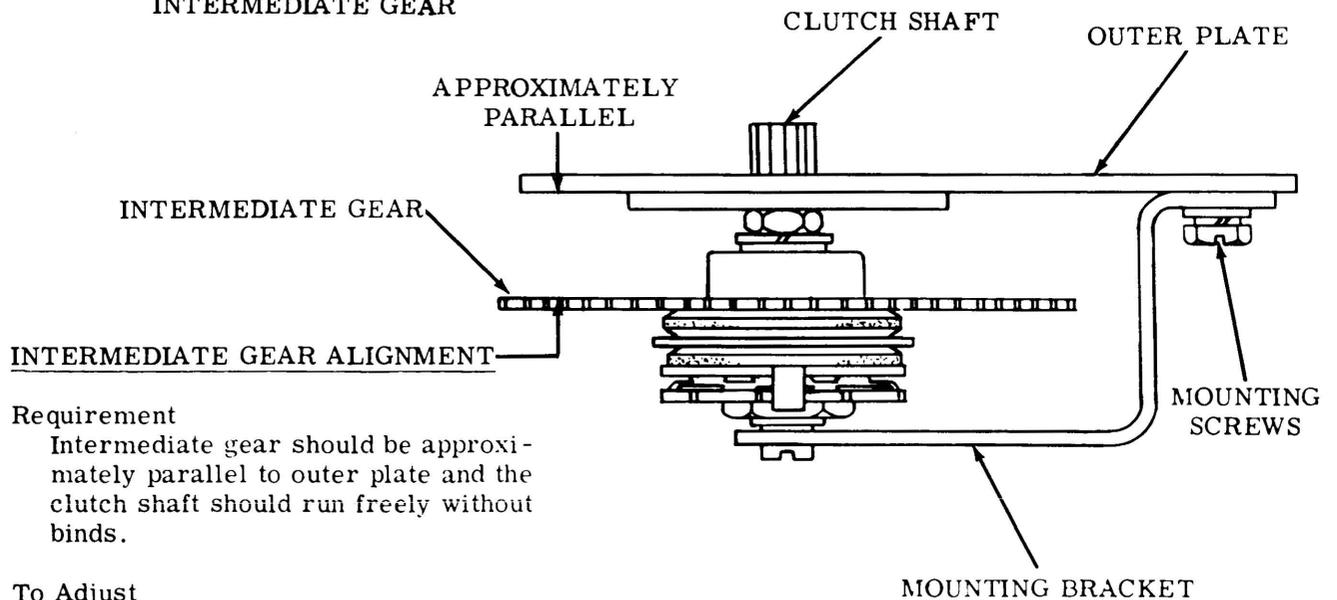
Requirement

With tape winder reel in position, there should be a barely perceptible backlash between pinion and reel drive gear at point where backlash is least.

To Adjust

Position bearing plate with mounting screws loosened. (Mounting screws are accessible through holes in intermediate gear.)

Note: This adjustment should be rechecked if tape winder reels are interchanged between units.



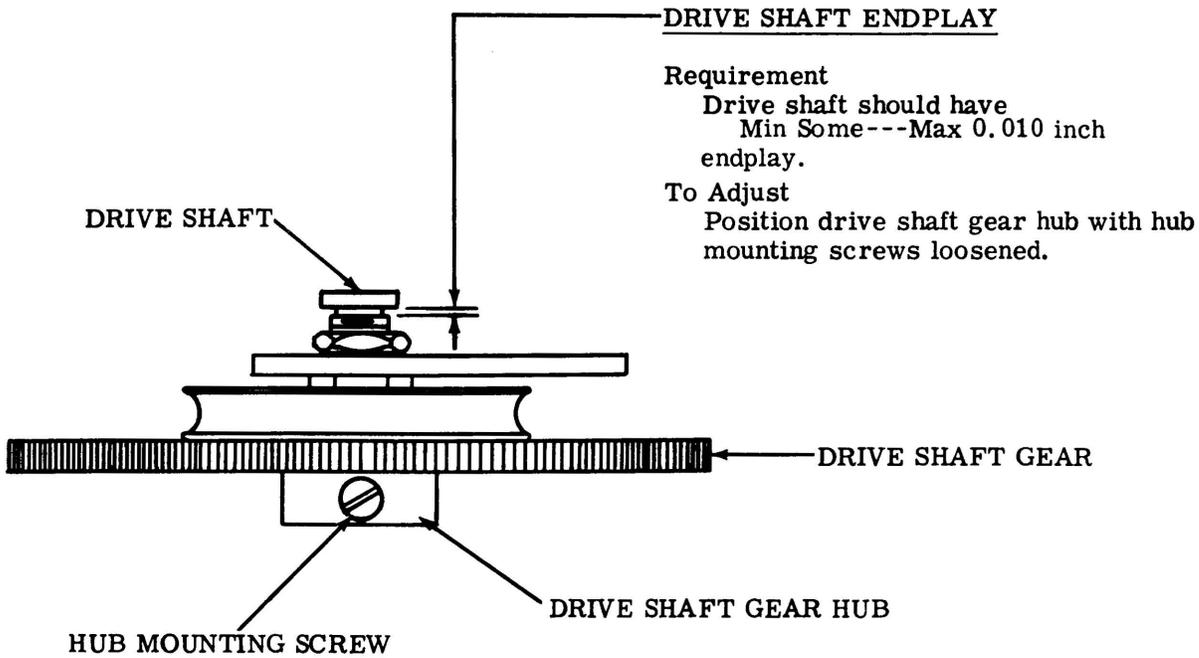
Requirement

Intermediate gear should be approximately parallel to outer plate and the clutch shaft should run freely without binds.

To Adjust

Position mounting bracket with mounting screws loosened.

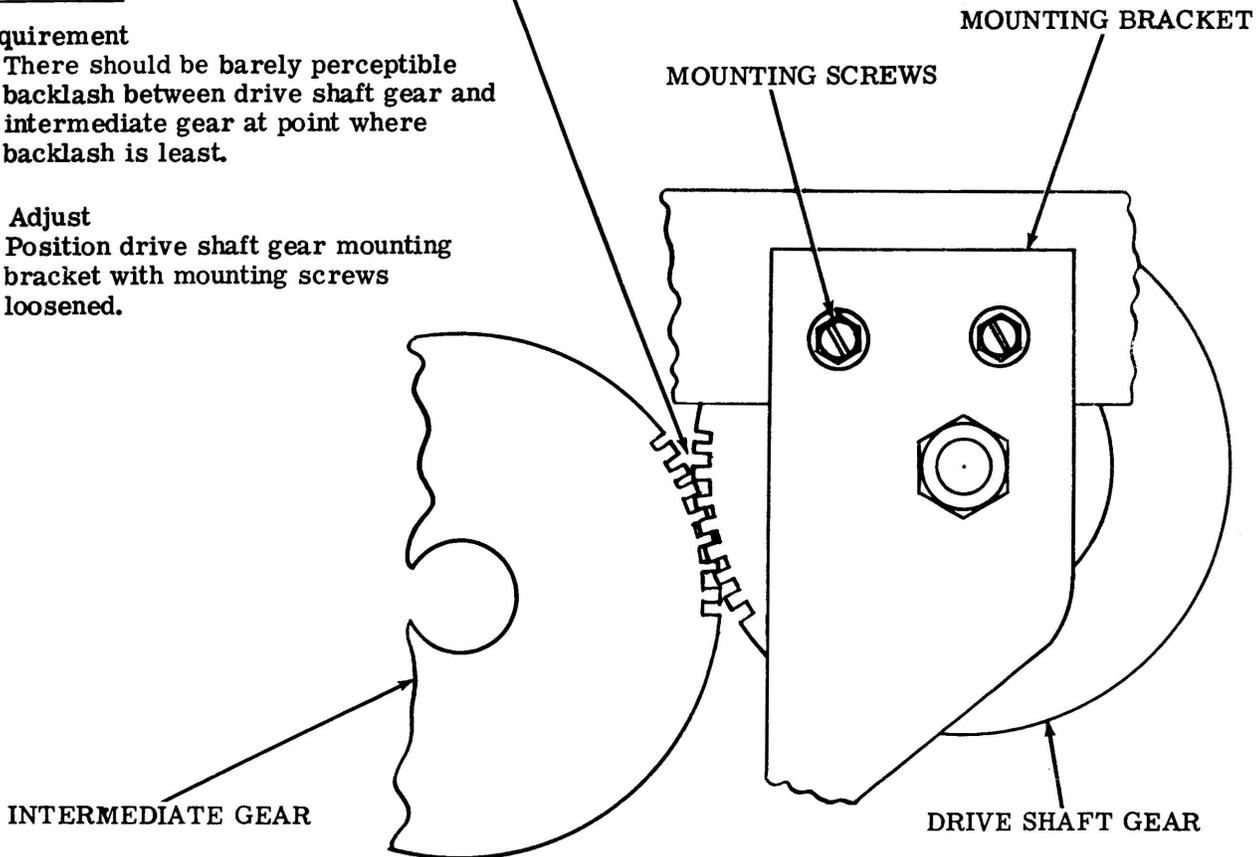
2.02 Tape Drive Mechanism (continued)



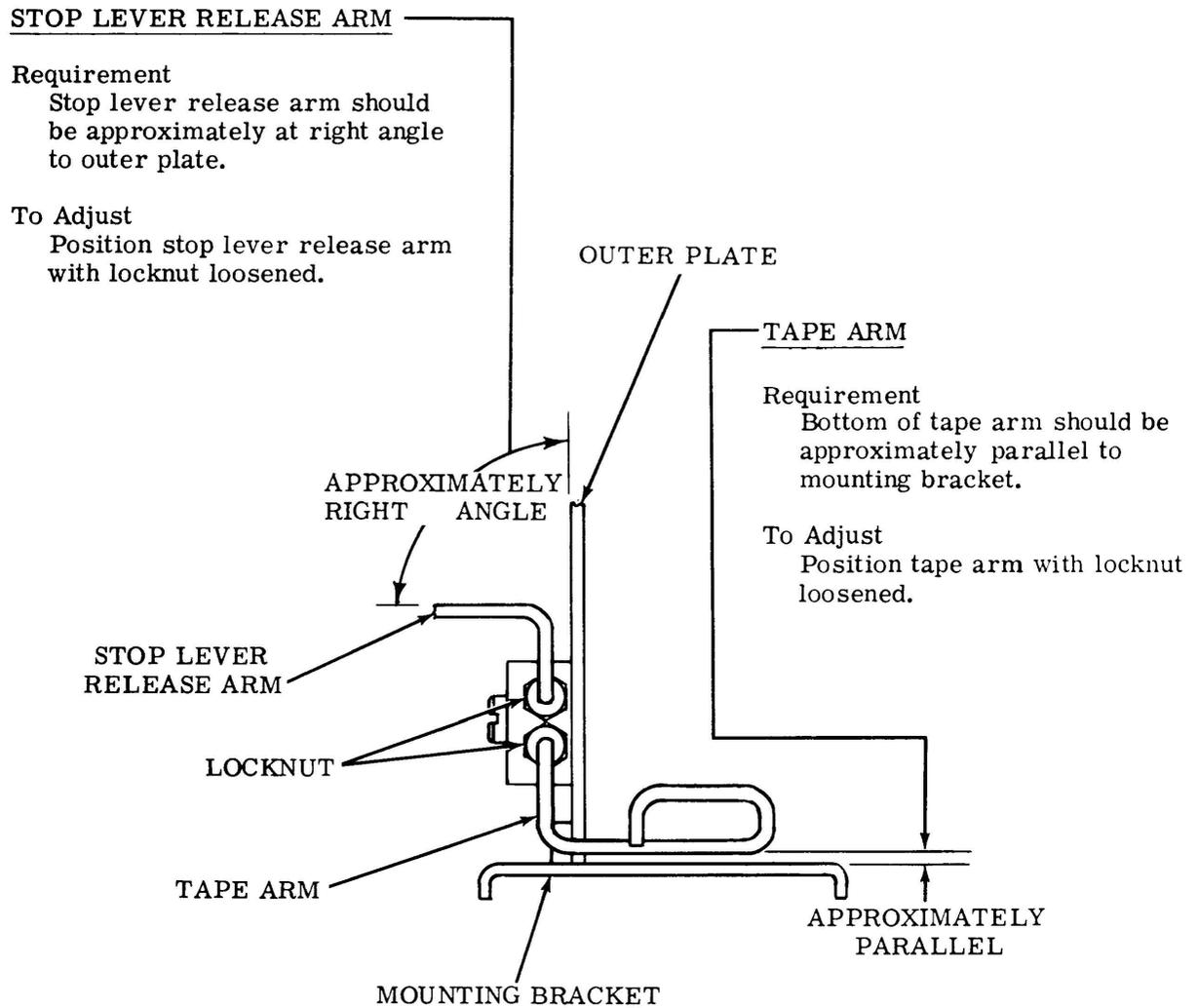
DRIVE SHAFT GEAR - INTERMEDIATE  
GEAR MESH

Requirement  
There should be barely perceptible  
backlash between drive shaft gear and  
intermediate gear at point where  
backlash is least.

To Adjust  
Position drive shaft gear mounting  
bracket with mounting screws  
loosened.



2.03 Tape Control Mechanism



2.04 Tape Control Mechanism (continued)

STOP LEVER ECCENTRIC STUD

**Requirement**

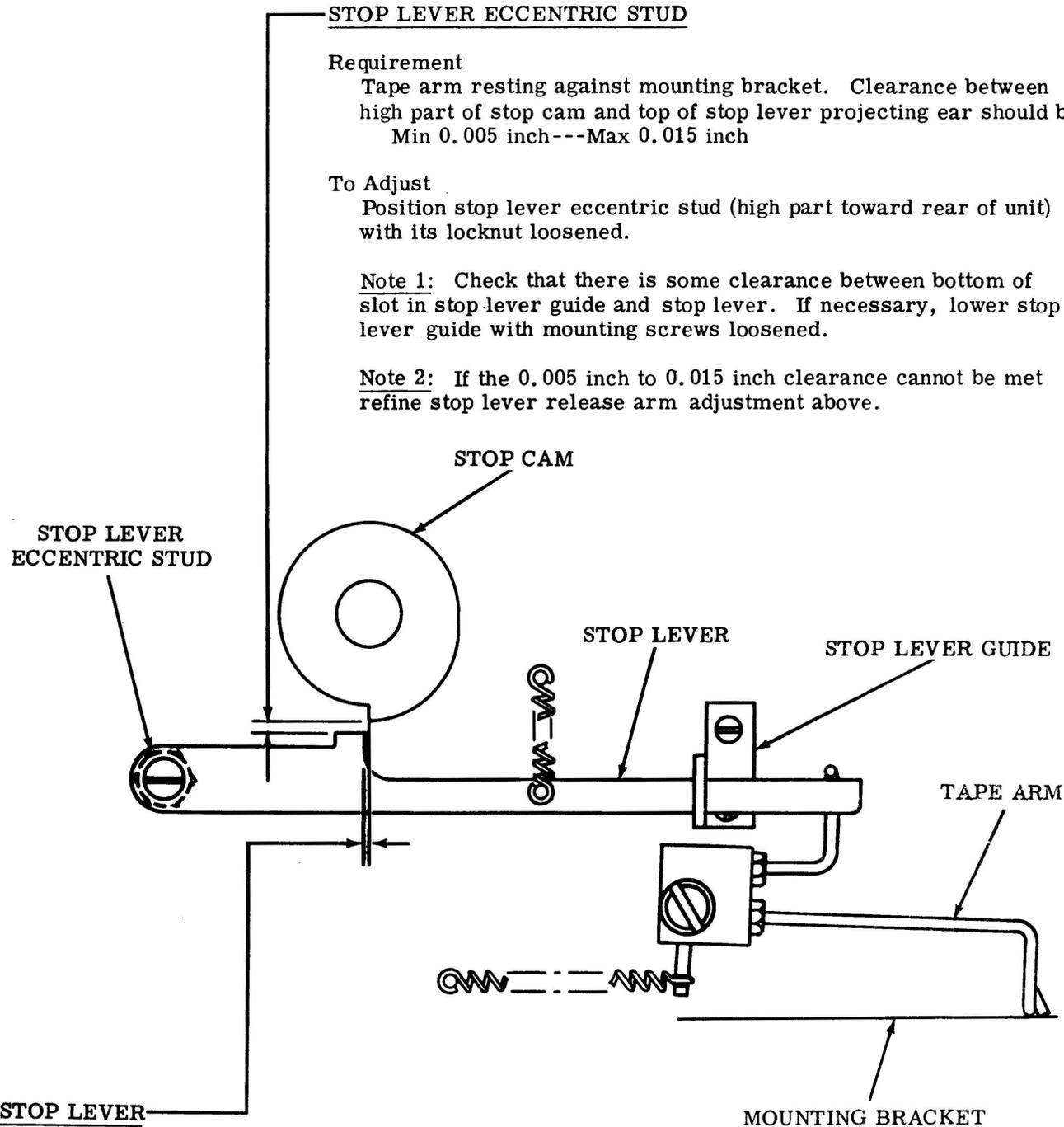
Tape arm resting against mounting bracket. Clearance between high part of stop cam and top of stop lever projecting ear should be Min 0.005 inch---Max 0.015 inch

**To Adjust**

Position stop lever eccentric stud (high part toward rear of unit) with its locknut loosened.

Note 1: Check that there is some clearance between bottom of slot in stop lever guide and stop lever. If necessary, lower stop lever guide with mounting screws loosened.

Note 2: If the 0.005 inch to 0.015 inch clearance cannot be met refine stop lever release arm adjustment above.



STOP LEVER

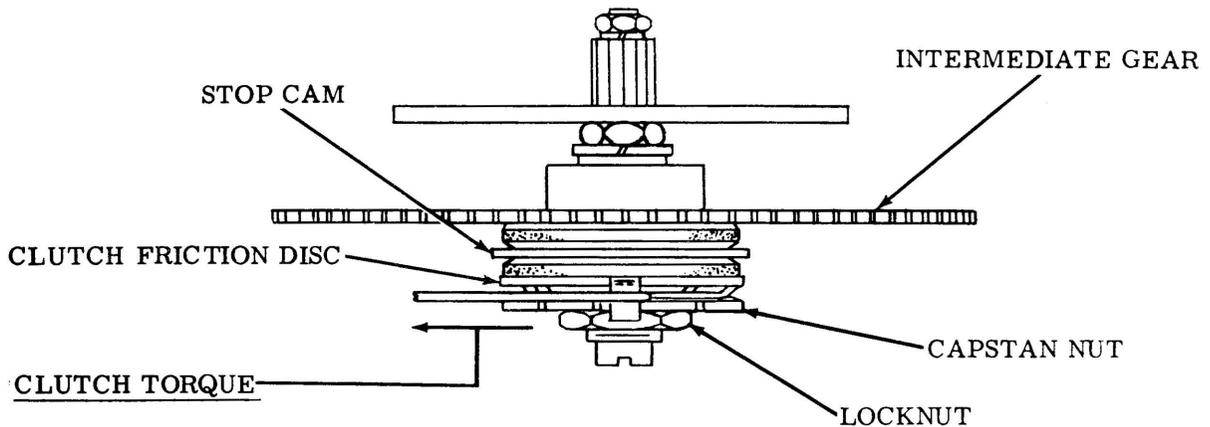
**Requirement**

Face of stop can should be parallel to mating surface of stop levers projecting ear when stop lever is in engagement with stop cam.

**To Adjust**

Position post with stop lever mounting post nut loosened. High part of eccentric post must be toward rear of unit. Tighten nut.

2.05 Tape Drive Mechanism (continued)



**Requirement**

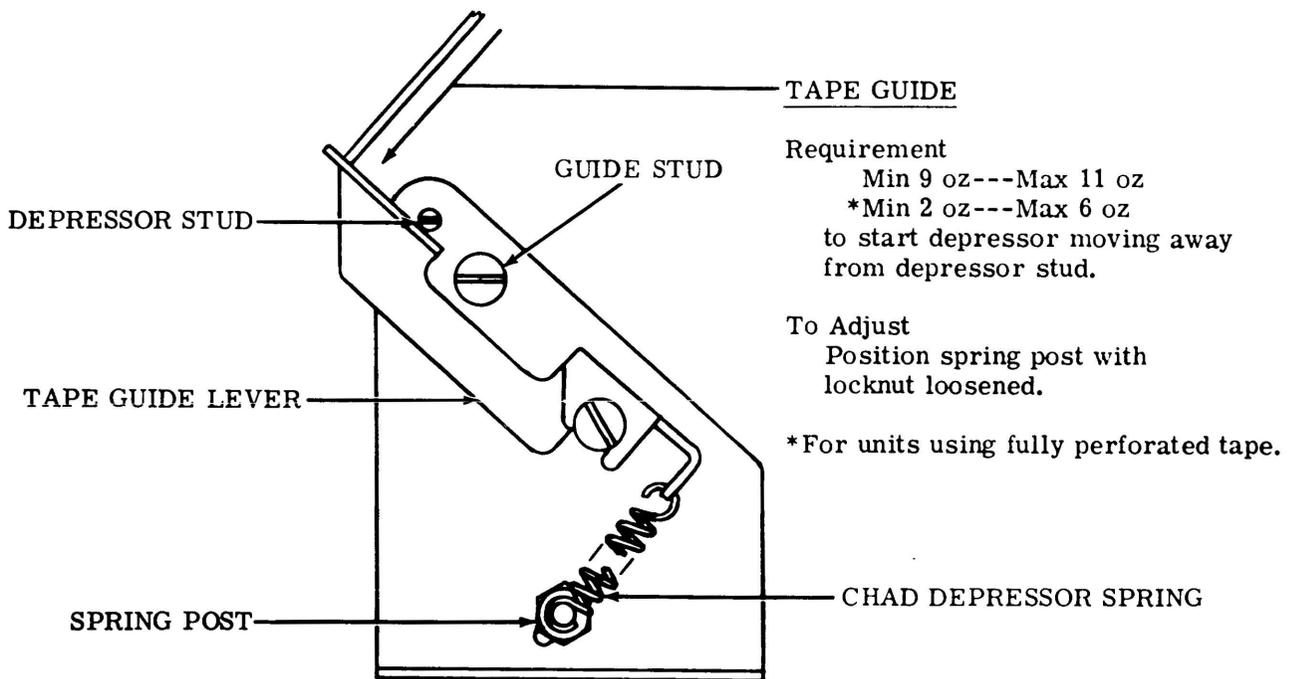
Power applied to unit. Stop lever held out of engagement with stop cam.  
 Min 12 oz---Max 16 oz  
 to keep clutch friction disc from moving.

**To Adjust**

Position capstan nut with locknut loosened; clockwise to increase tension, counterclockwise to decrease tension.

Note: This measurement should be made when unit is warm from operation.

2.06 Tape Control Mechanism (continued)



**Requirement**

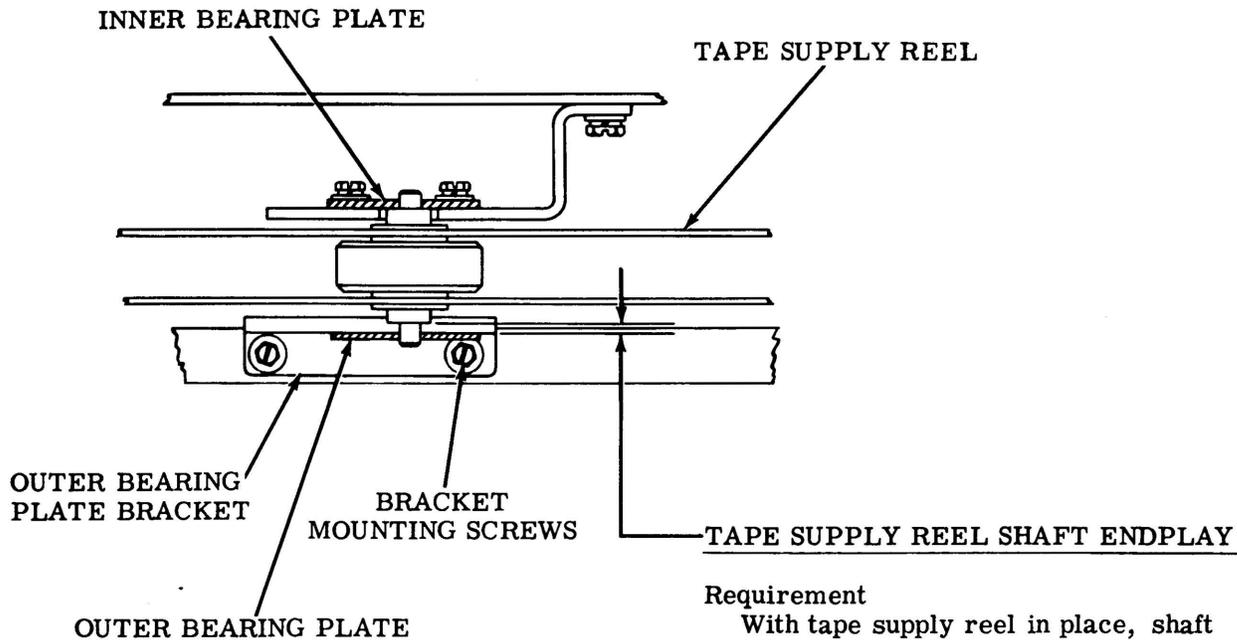
Min 9 oz---Max 11 oz  
 \*Min 2 oz---Max 6 oz  
 to start depressor moving away from depressor stud.

**To Adjust**

Position spring post with locknut loosened.

\*For units using fully perforated tape.

2.07 Tape Reel Mechanism



Requirement

With tape supply reel in place, shaft endplay should be

Min Some---Max 0.100 inch

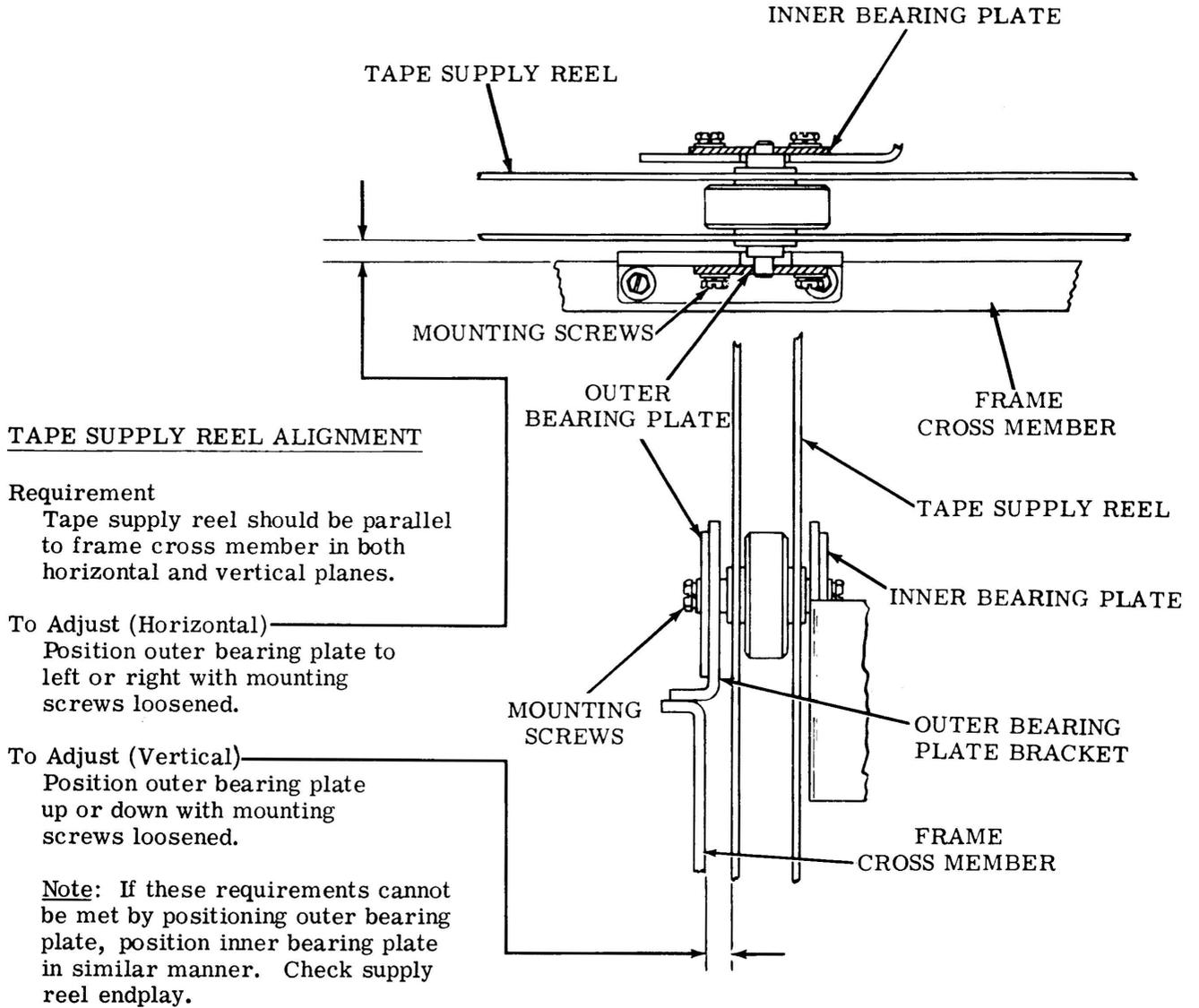
\*Min Some---Max 0.062 inch

To Adjust

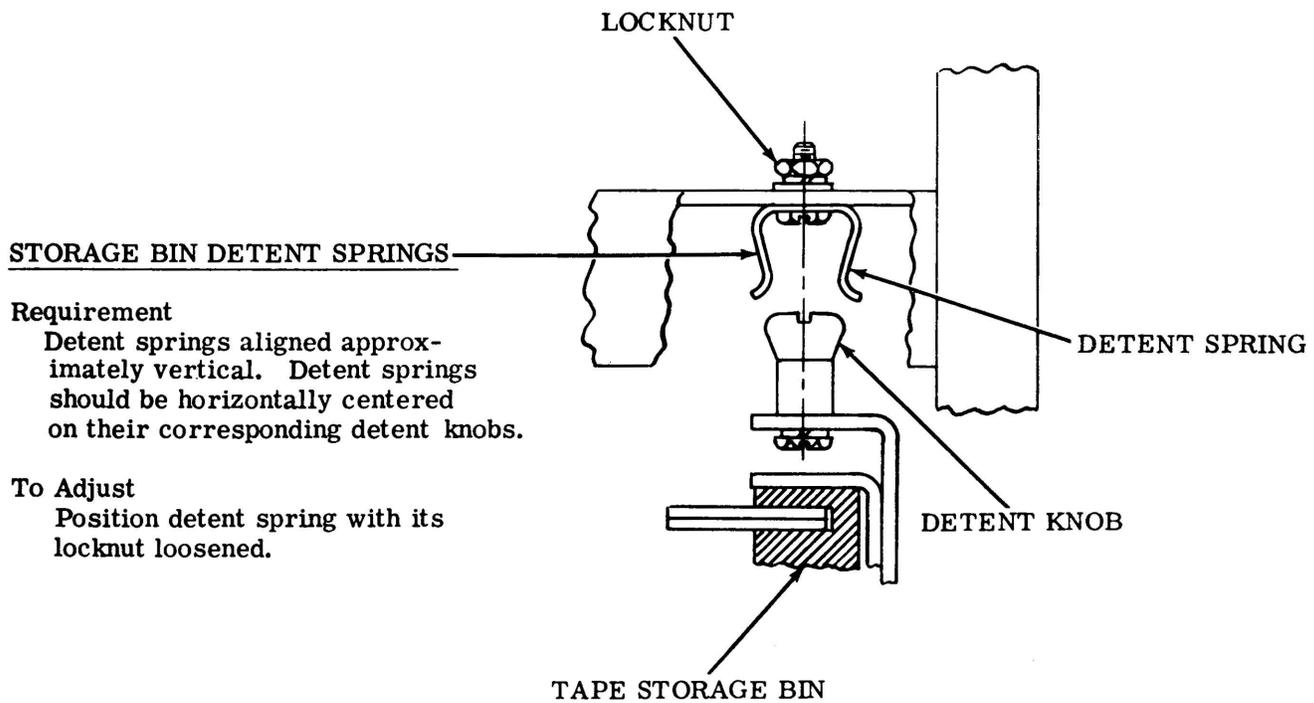
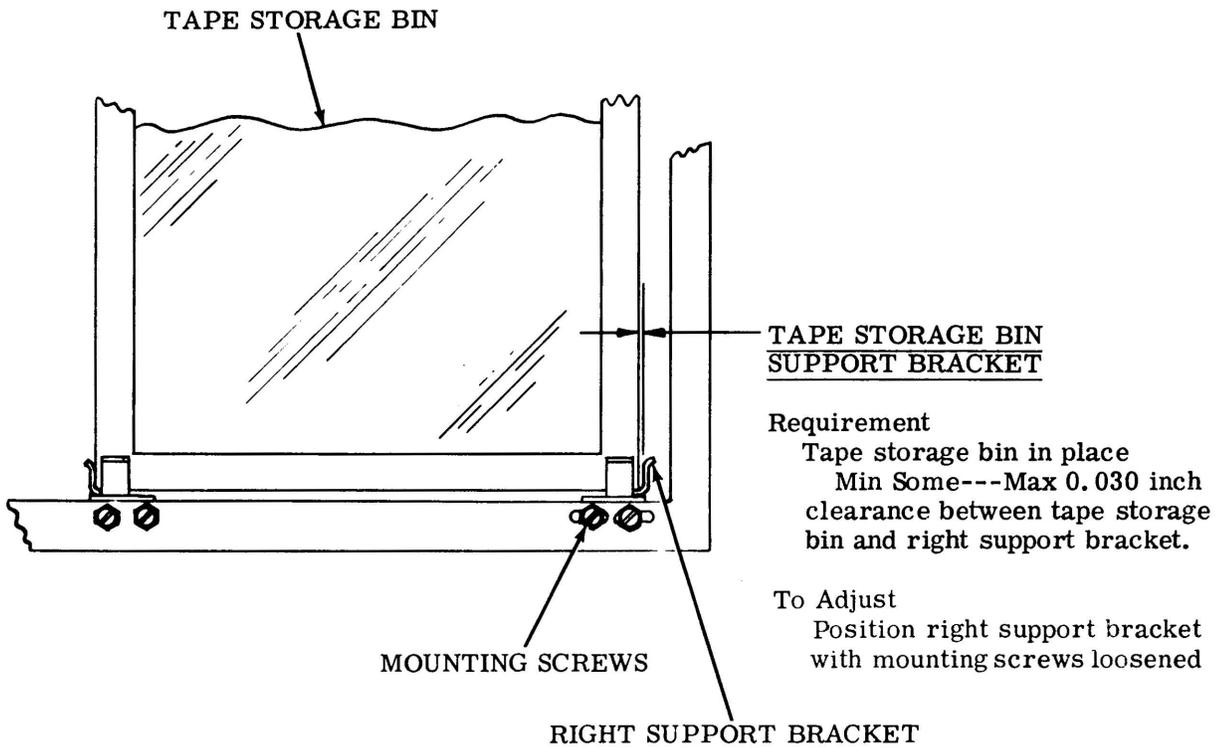
Position outer bearing plate bracket with mounting screws loosened.

\*Units with V belt drive.

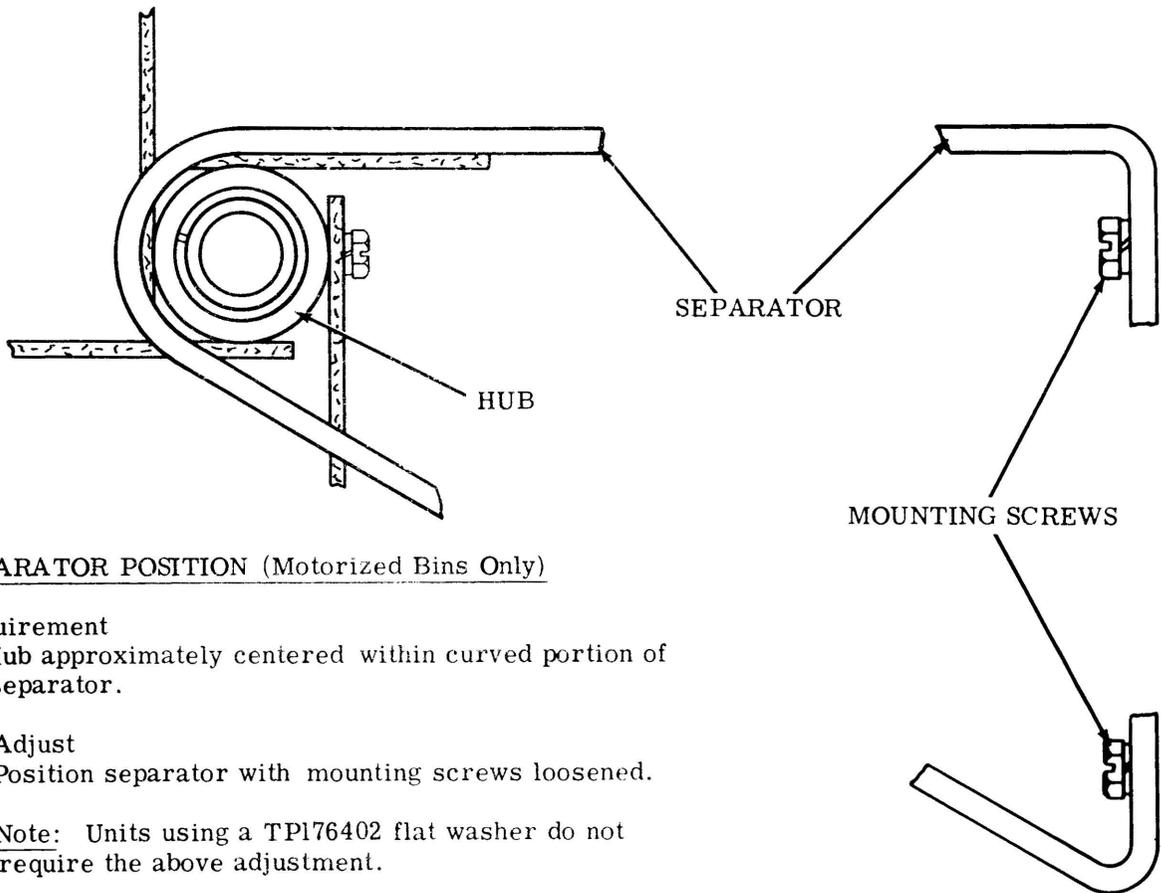
2.08 Tape Reel Mechanism (continued)



2.09 Tape Bin



2.10 Tape Control Mechanism (continued)



SEPARATOR POSITION (Motorized Bins Only)

**Requirement**

Hub approximately centered within curved portion of separator.

**To Adjust**

Position separator with mounting screws loosened.

Note: Units using a TP176402 flat washer do not require the above adjustment.

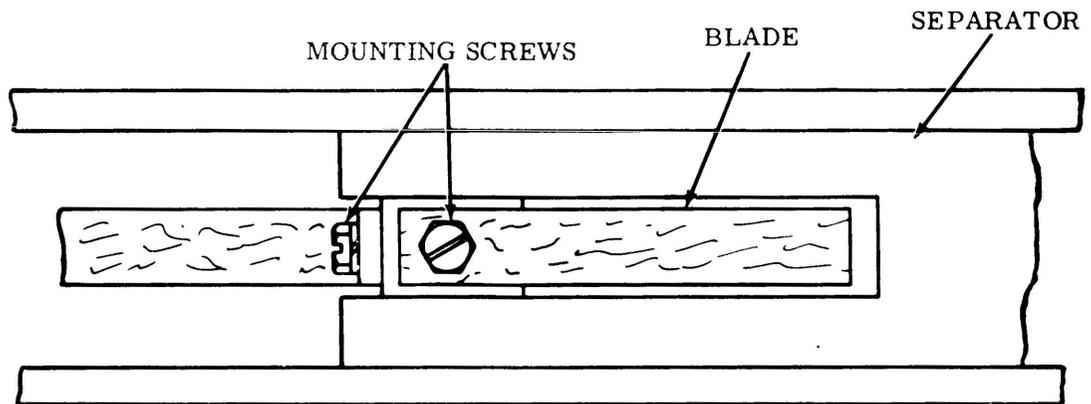
BLADE POSITION (Motorized Bins Only)

**Requirement**

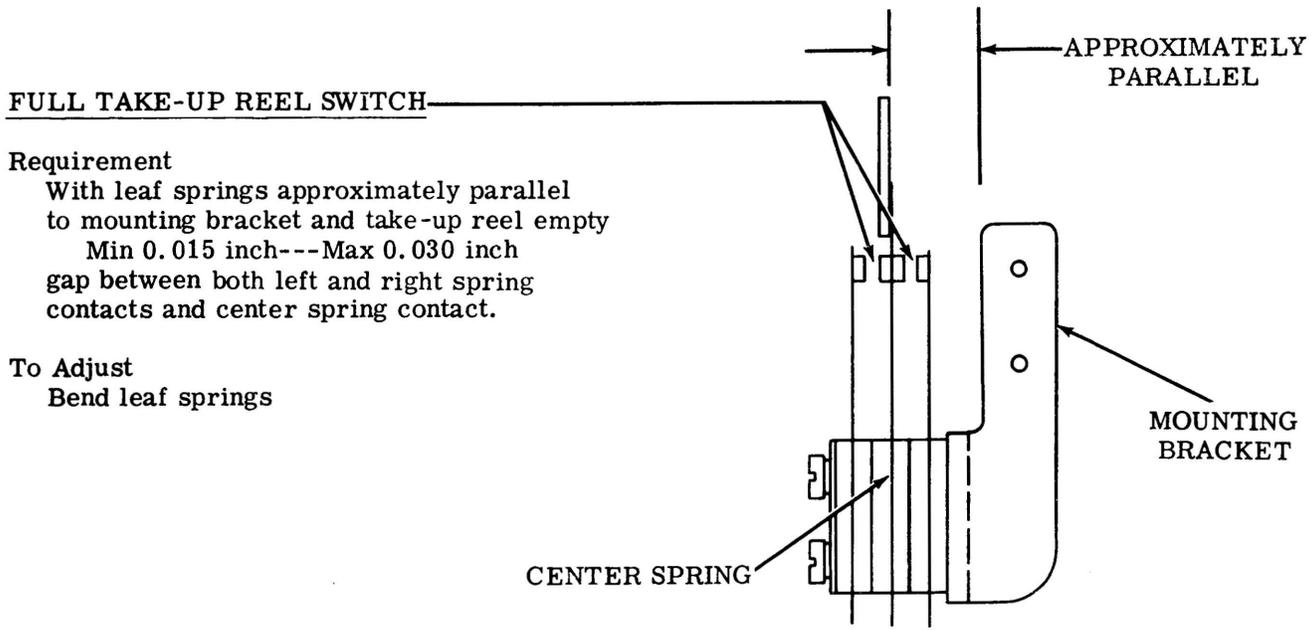
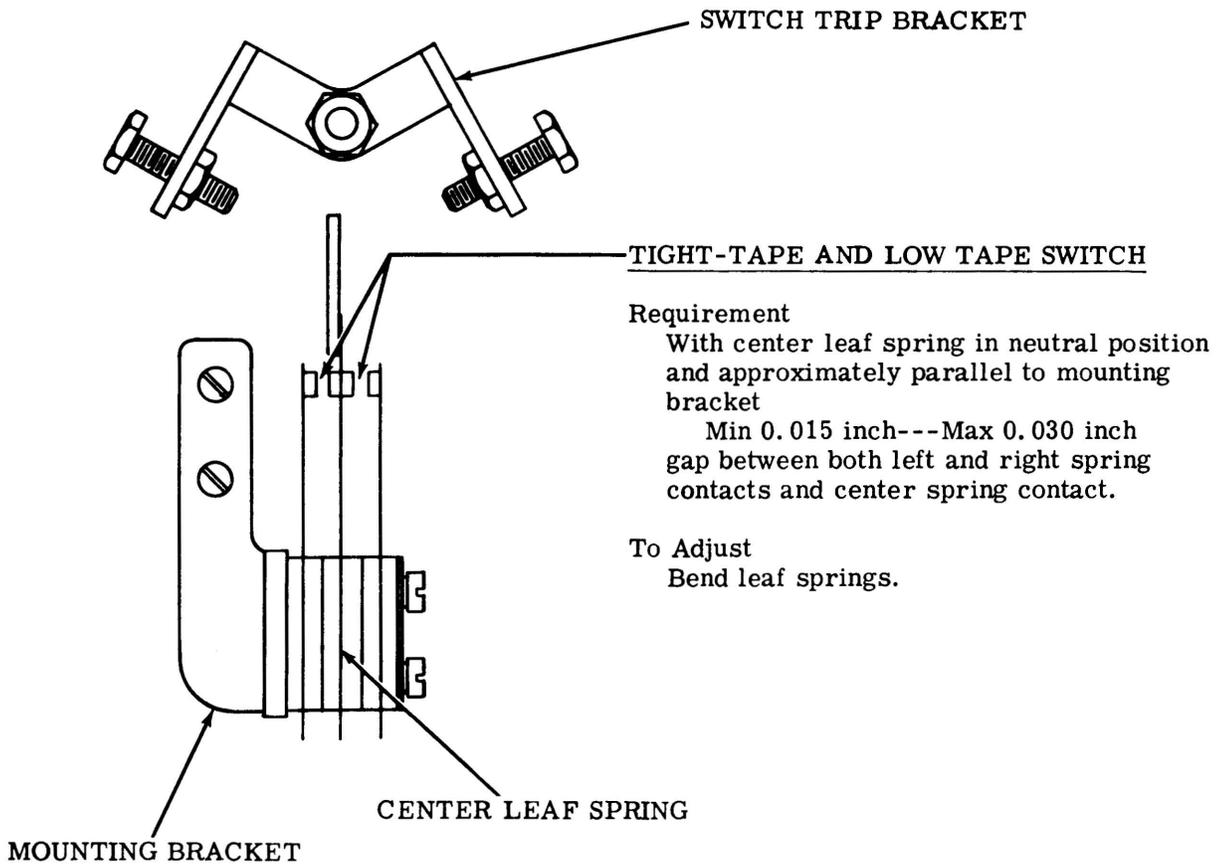
Blades should be approximately centered in slot in separator. Check four blades.

**To Adjust**

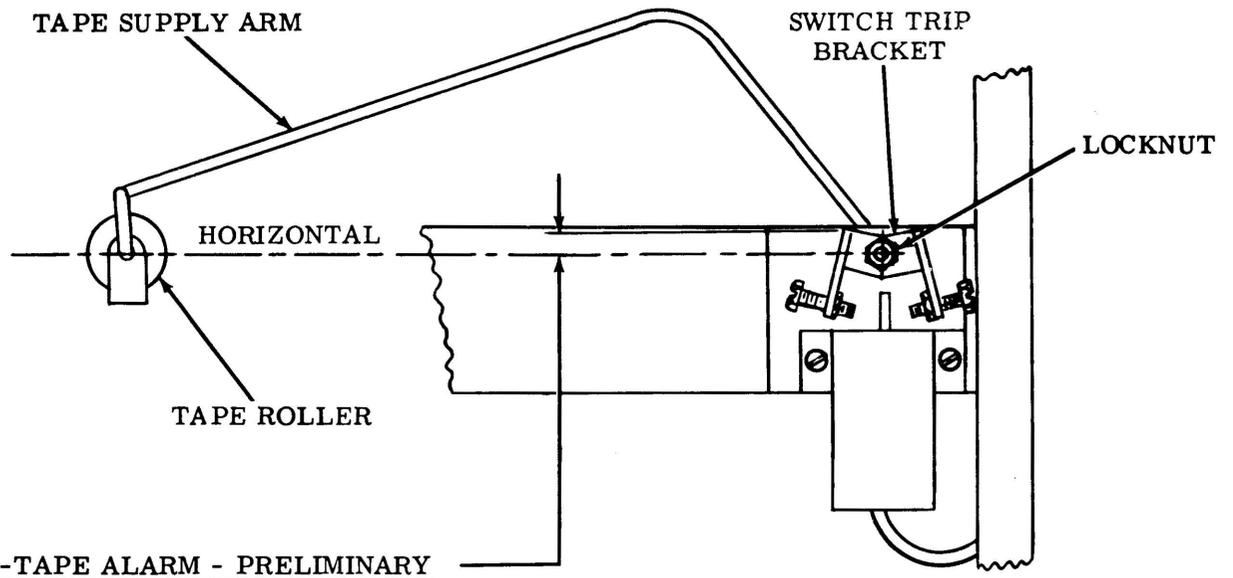
Position blades with mounting screws loosened.



2.11 Tape Control Mechanism (continued)



## 2.12 Tape Control Mechanism (continued)

TIGHT-TAPE ALARM - PRELIMINARY**Requirement**

With tape supply arm positioned so tape roller and trip bracket locknut are on same horizontal level, top of switch trip bracket should be approximately horizontal.

**To Adjust**

Position switch trip bracket with locknut loosened.

2.13 Tape Control Mechanism (continued)

TIGHT-TAPE ALARM - FINAL

Requirement

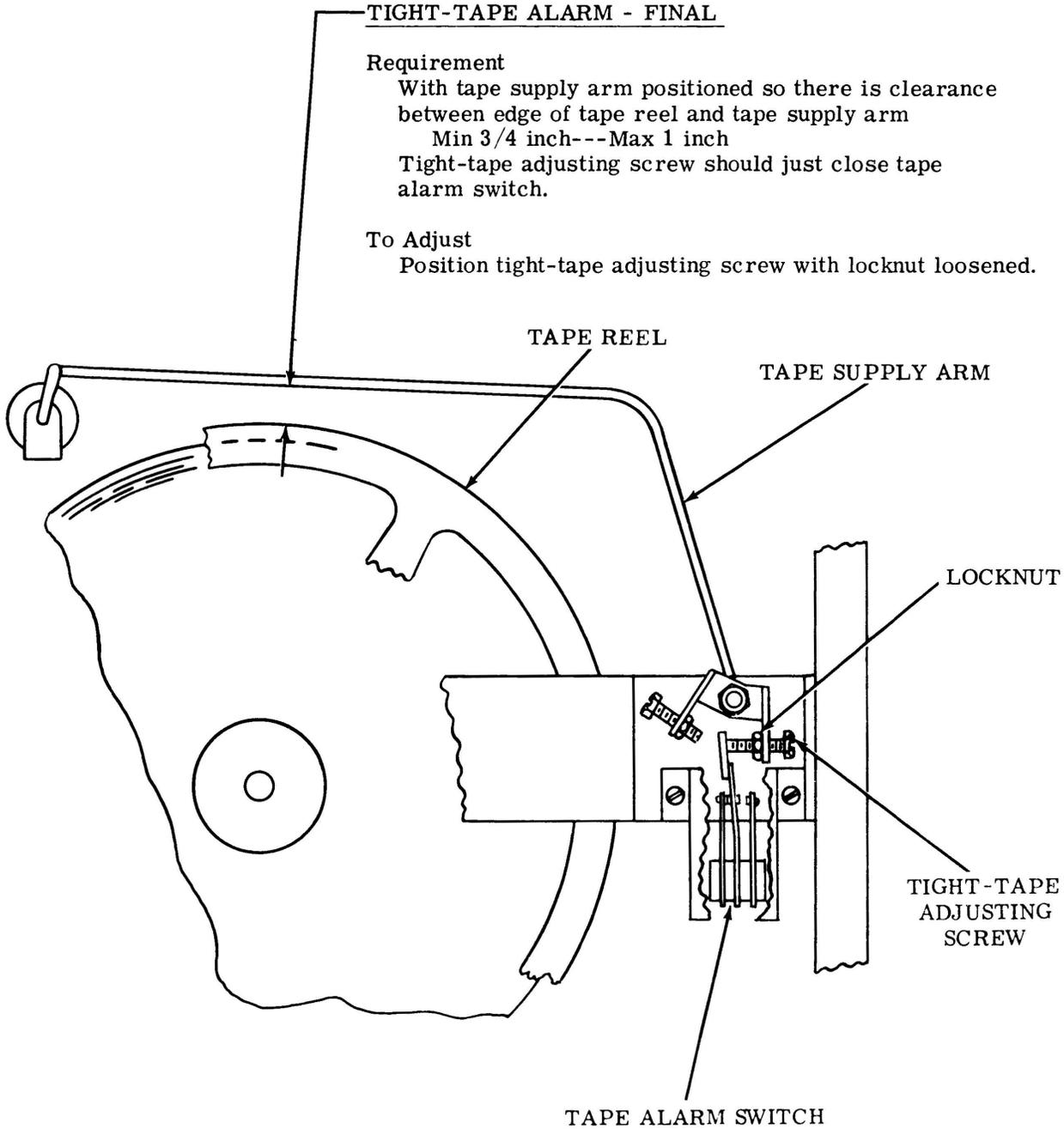
With tape supply arm positioned so there is clearance between edge of tape reel and tape supply arm

Min 3/4 inch---Max 1 inch

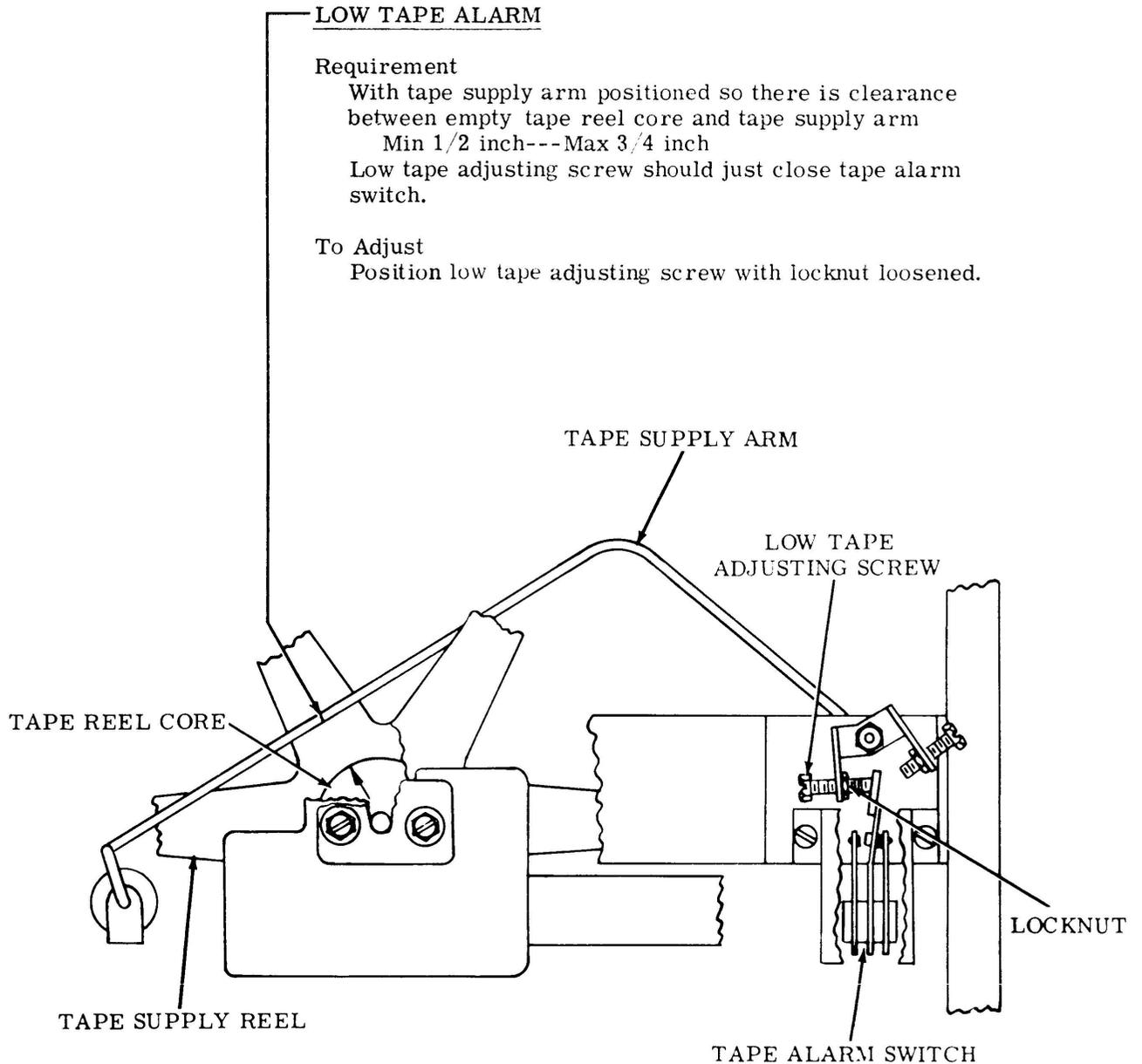
Tight-tape adjusting screw should just close tape alarm switch.

To Adjust

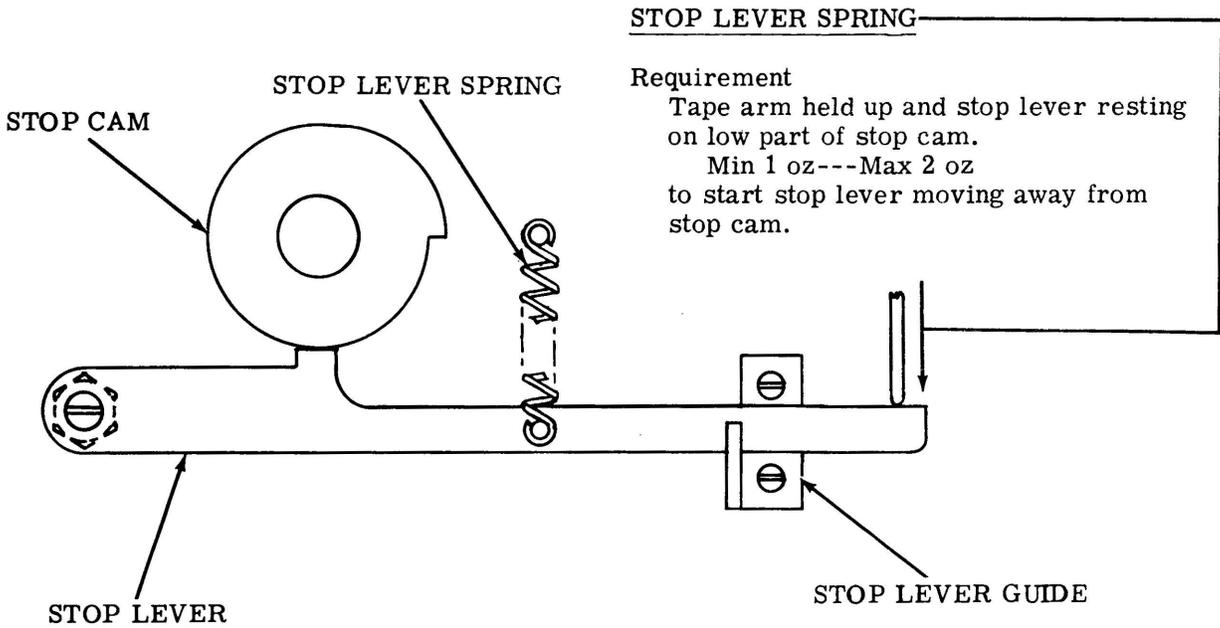
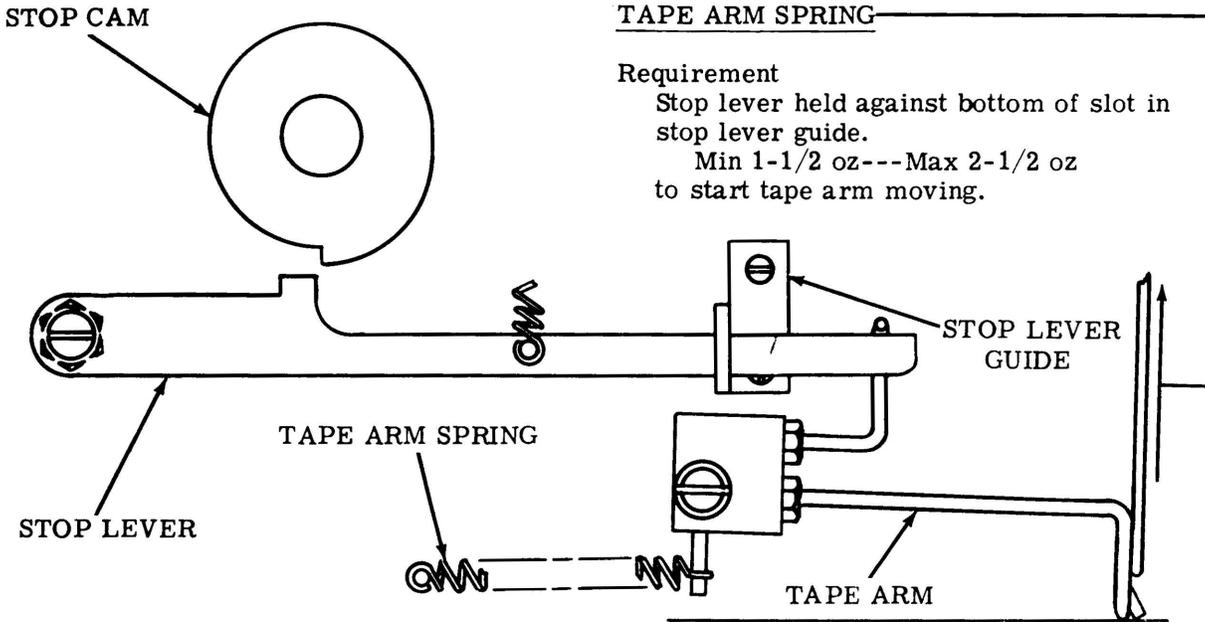
Position tight-tape adjusting screw with locknut loosened.



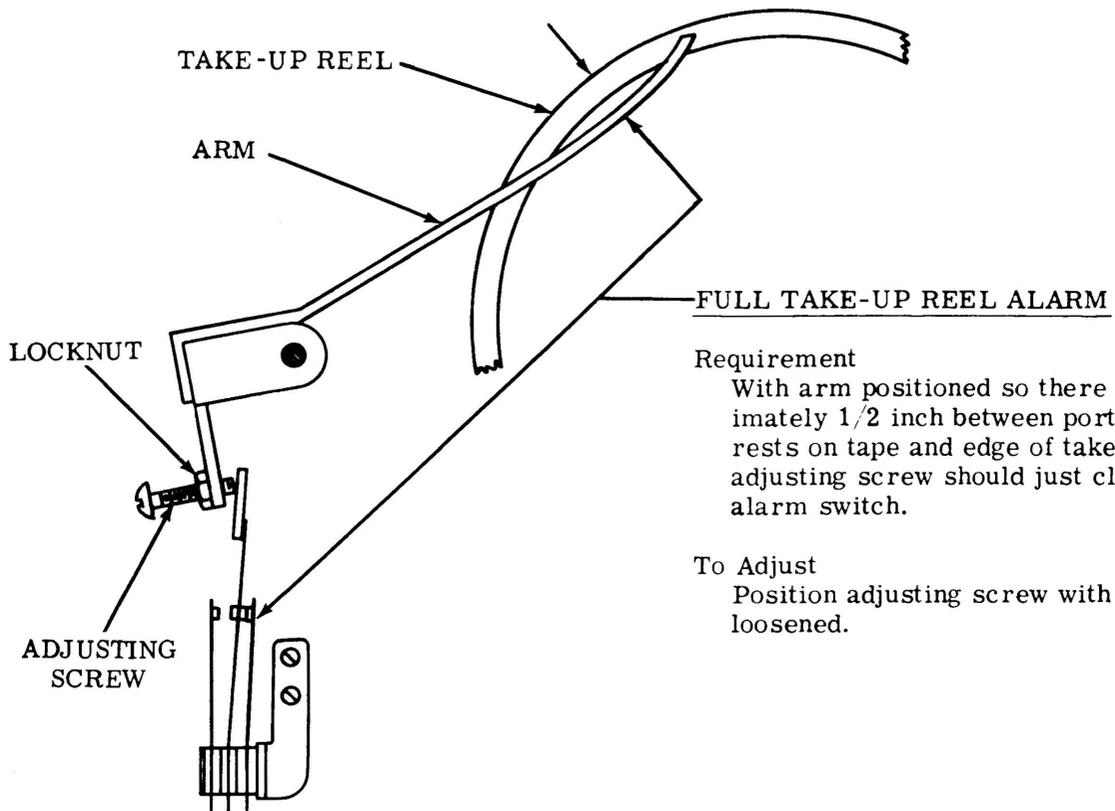
## 2.14 Tape Control Mechanism (continued)



2.15 Tape Control Mechanism (continued)



2.16 Tape Control Mechanism (continued)



Requirement

With arm positioned so there is approximately 1/2 inch between portion of arm that rests on tape and edge of take-up reel, adjusting screw should just close contacts of alarm switch.

To Adjust

Position adjusting screw with its locknut loosened.

ACTUATOR SPRING

Requirement

With actuator spring hooked in first hole  
 Min 2-1/4 oz --- Max 2-1/2 oz  
 to separate actuator extension from leaf spring operating button. If requirement cannot be met replace spring.

TAPE BIN FULL SWITCH

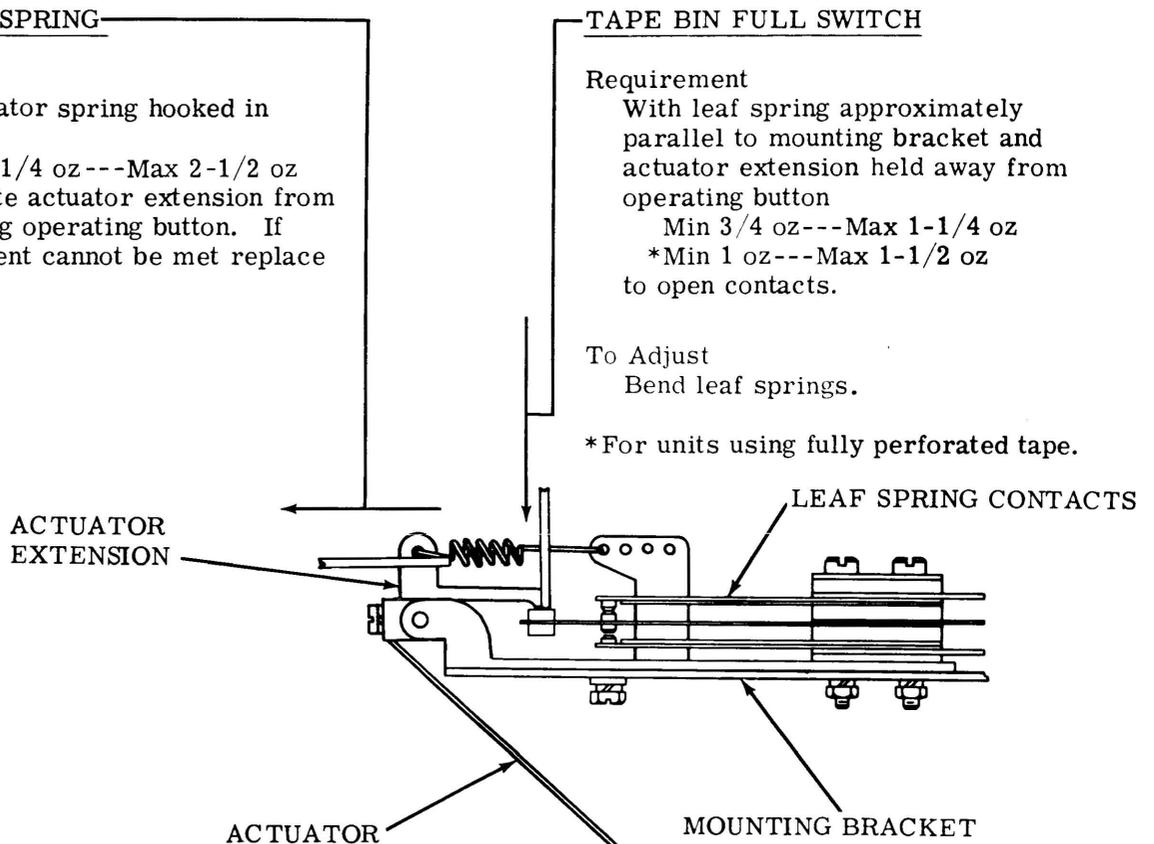
Requirement

With leaf spring approximately parallel to mounting bracket and actuator extension held away from operating button  
 Min 3/4 oz --- Max 1-1/4 oz  
 \*Min 1 oz --- Max 1-1/2 oz  
 to open contacts.

To Adjust

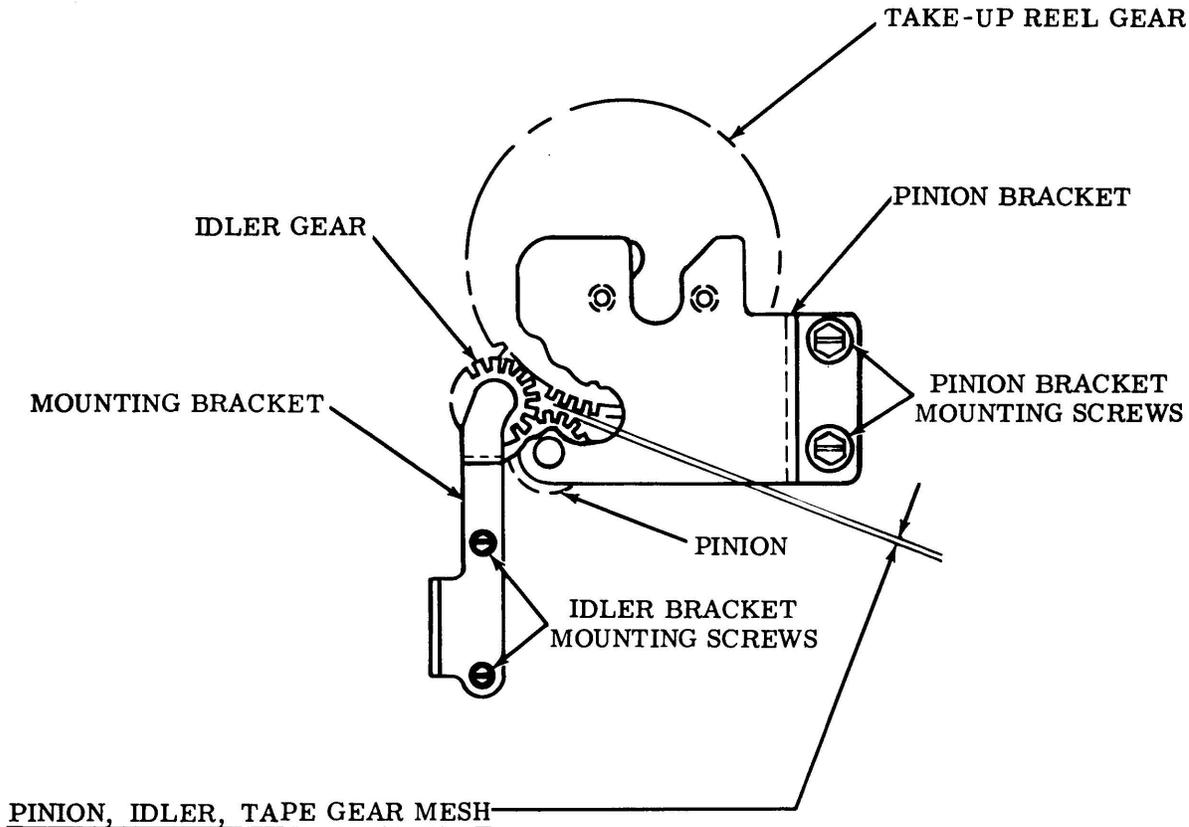
Bend leaf springs.

\*For units using fully perforated tape.



2.17 Tape Drive Mechanism (continued)

**Note:** This adjustment is used when replacing the felt clutch on the low speed tape handling stand with a belt drive mechanism.

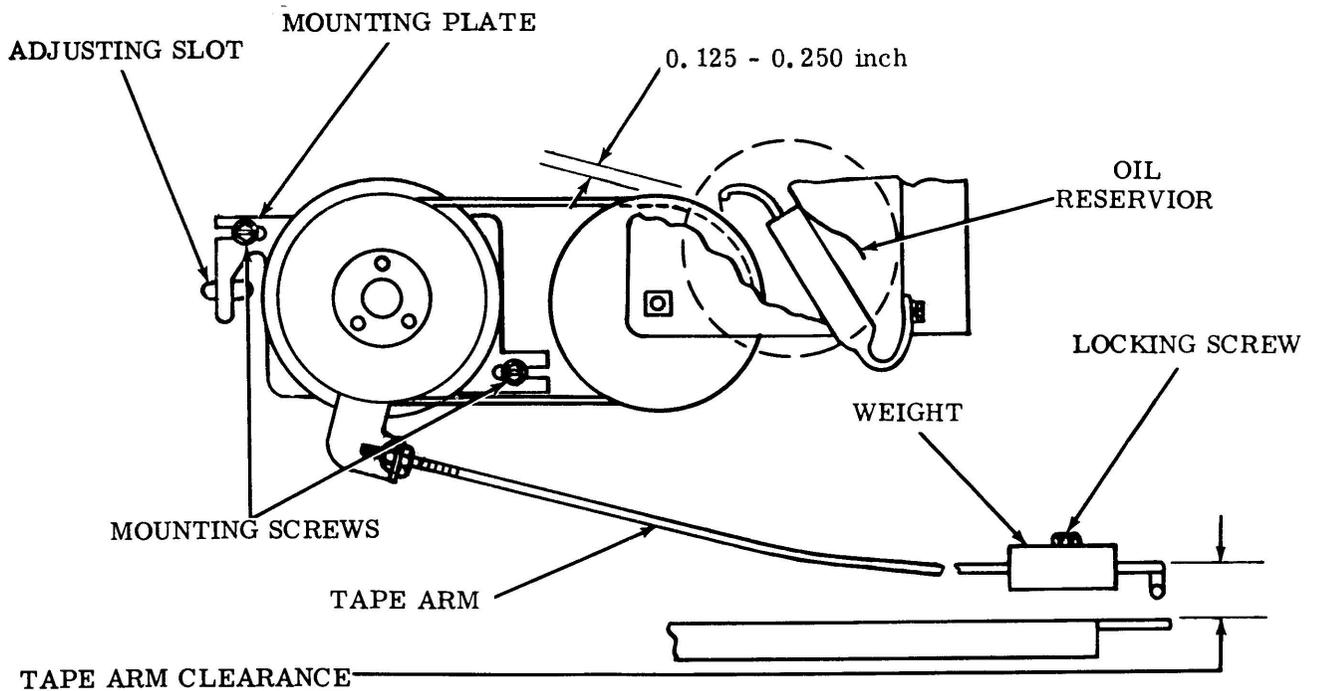


- (1) Requirement  
With take-up reel in position there should be a barely perceptible amount of backlash between take-up reel gear and idler gear and between idler gear and pinion at point where backlash is least.
- (2) Requirement  
Clearance between outside diameters of take-up reel gear and pinion at closest point on their peripheries  
Min 0.015 inch.

**To Adjust**  
With pinion bracket and idler bracket mounting screws loosened, position both brackets to meet requirements.

2.18 Tape Control Mechanism (continued)

Note: These two adjustments are used when replacing the felt clutch on the low speed tape handling stand with a belt drive mechanism.

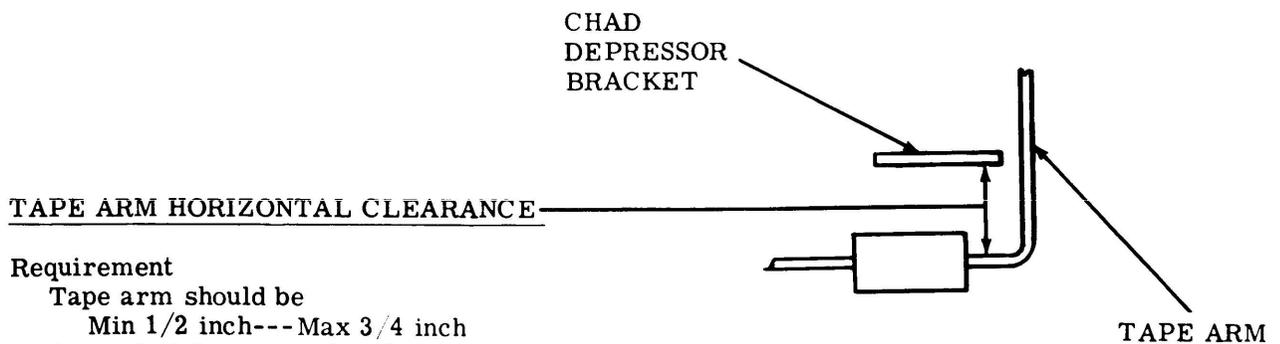


**Requirement**

With take-up reel removed  
 Min 3/4 inch---Max 1 inch  
 from top edge of tape arm to top of mounting bracket.

**To Adjust**

Loosen mounting screws. Insert screwdriver in adjusting slot and position mounting plate so top of tape arm is approximately 1-1/4 inches above bar. Tighten mounting screws. Push tape arm down until it touches mounting bracket and let it rise slowly. Arm should come to rest as per requirement. If necessary, refine adjustment.



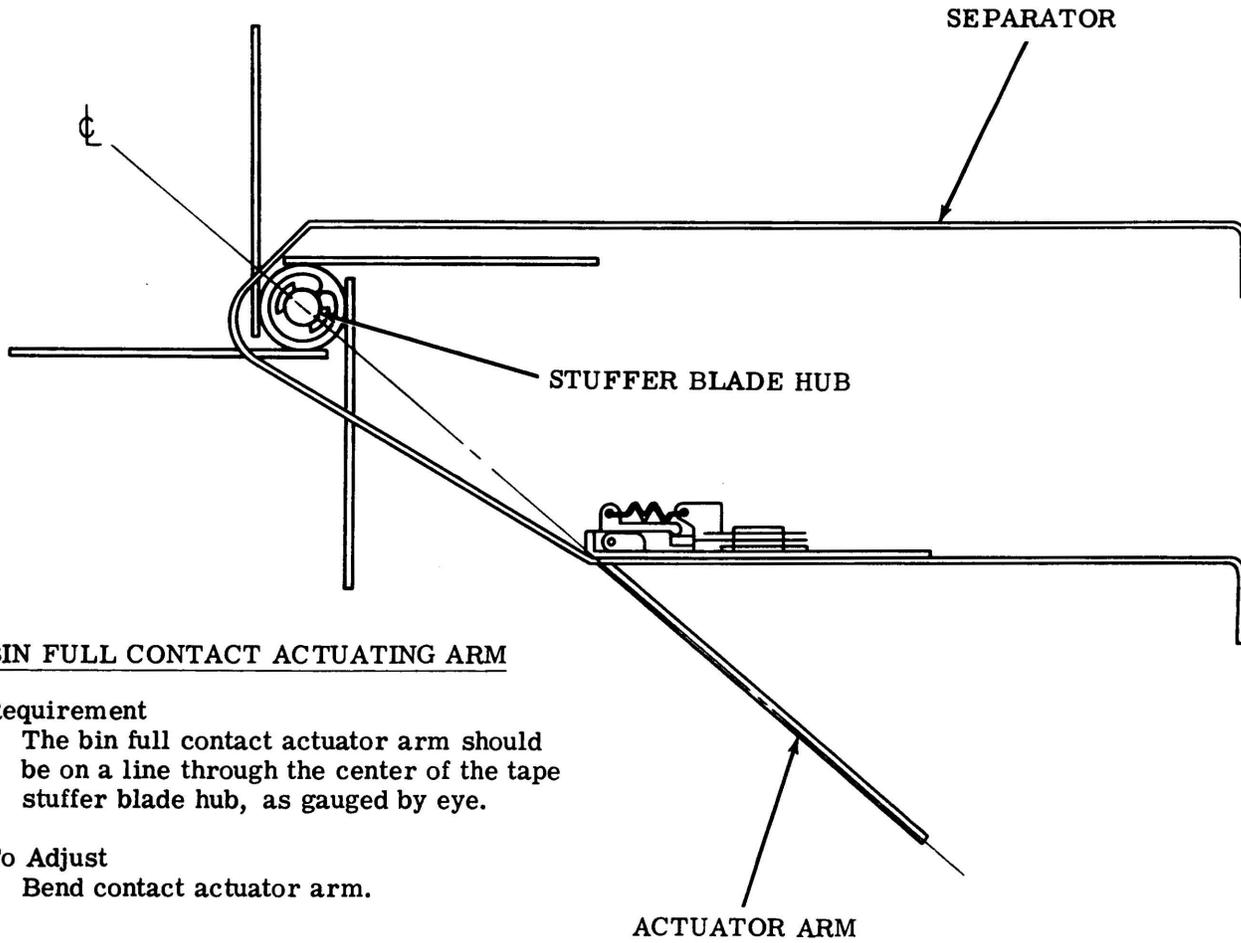
**Requirement**

Tape arm should be  
 Min 1/2 inch---Max 3/4 inch  
 from chad depressor bracket.

**To Adjust**

Bend arm to meet requirement.

2.19 Tape Control Mechanism (continued)



**Requirement**

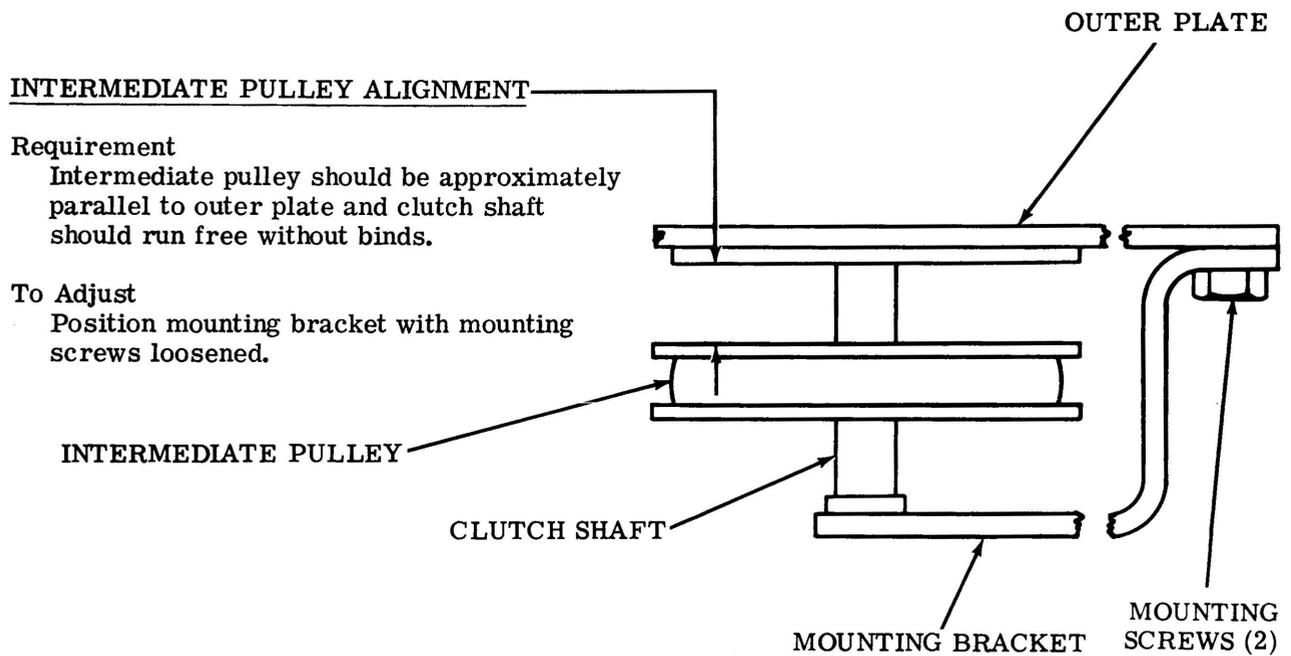
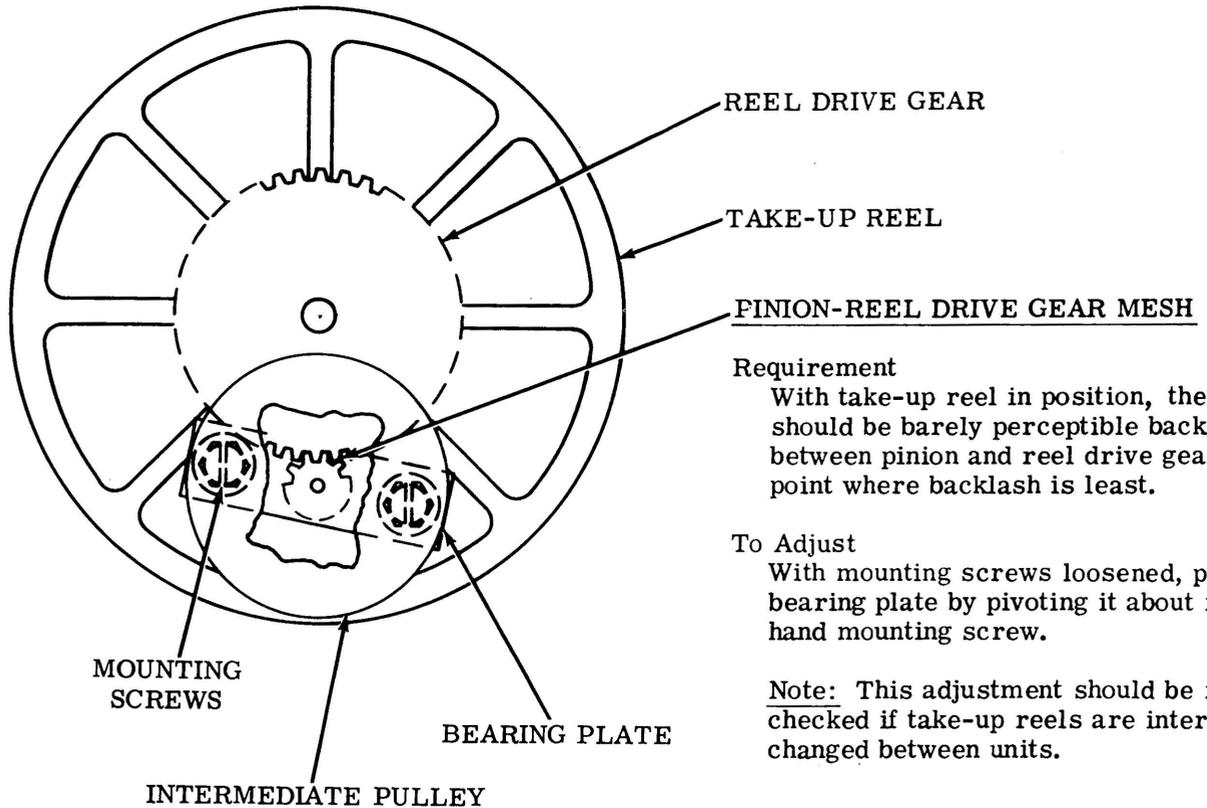
The bin full contact actuator arm should be on a line through the center of the tape stuffer blade hub, as gauged by eye.

**To Adjust**

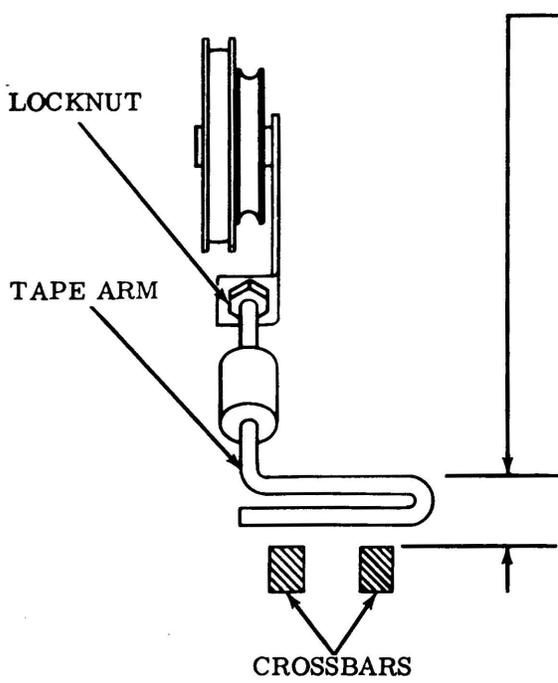
Bend contact actuator arm.

HIGH SPEED TAPE HANDLING STAND (FLAT BELT WINDER)

2.20 Tape Drive Mechanism



2.21 Tape Control Mechanism



TAPE ARM

**Requirement**

Upper edge of tape arm should be approximately parallel to top of crossbars.

**To Adjust**

Position tape arm with locknut loosened.

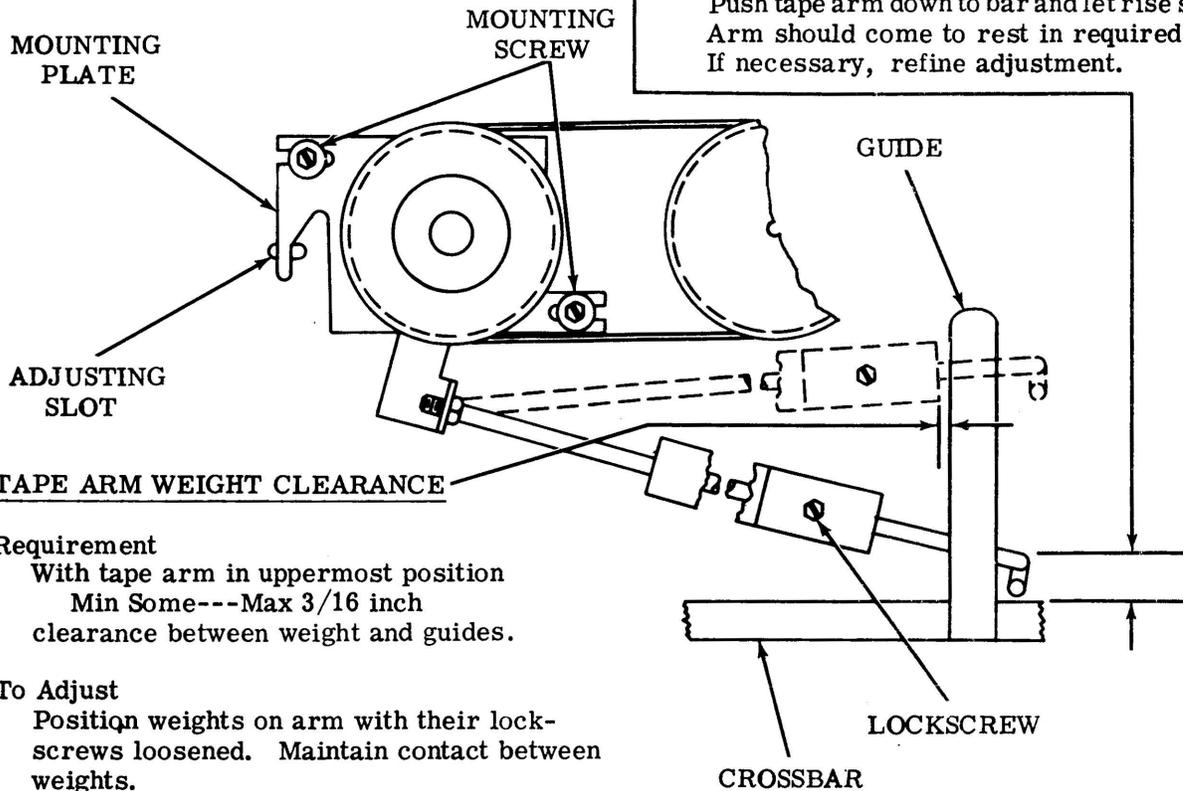
TAPE ARM CLEARANCE

**Requirement**

With take-up reel removed  
Min 1 inch---Max 1-1/2 inch  
from top edge of tape arm to top of bar.

**To Adjust**

Loosen mounting screws. Insert screwdriver in adjusting slot and position mounting plate so top of tape arm is approximately 1-3/4 inches above bar. Tighten mounting screws. Push tape arm down to bar and let rise slowly. Arm should come to rest in required position. If necessary, refine adjustment.



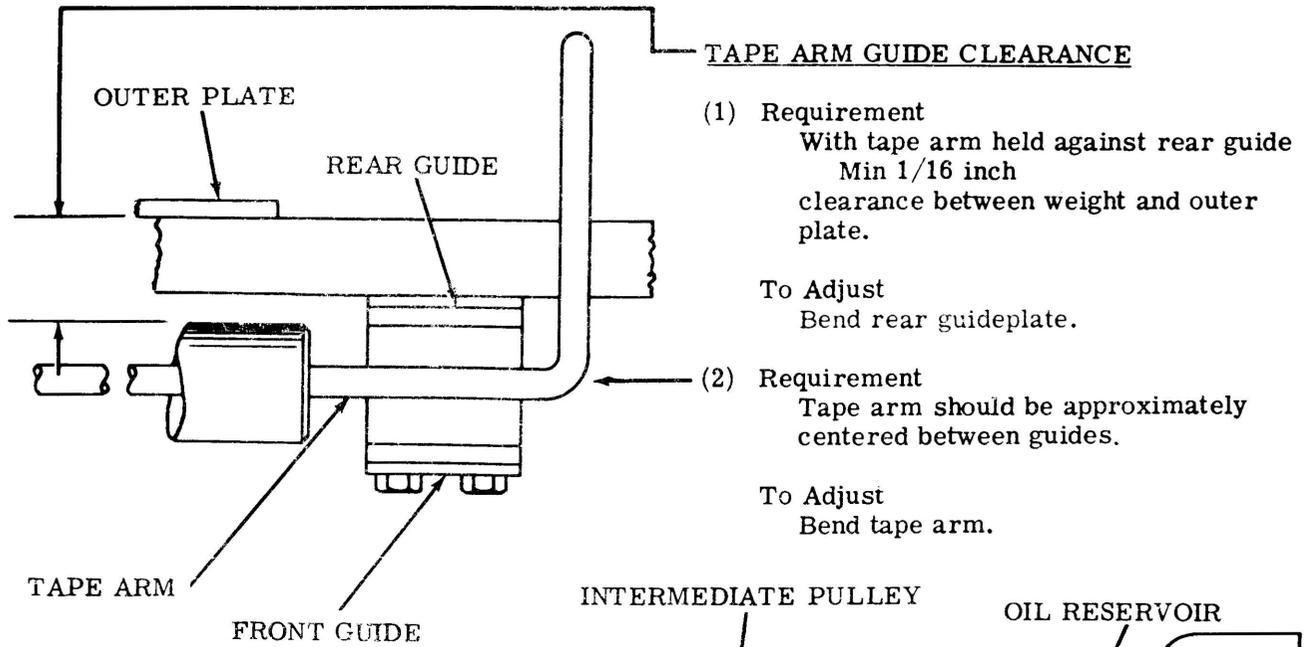
**Requirement**

With tape arm in uppermost position  
Min Some---Max 3/16 inch  
clearance between weight and guides.

**To Adjust**

Position weights on arm with their lock-screws loosened. Maintain contact between weights.

2.22 Tape Control Mechanism (continued)



TAPE ARM GUIDE CLEARANCE

(1) Requirement  
With tape arm held against rear guide  
Min 1/16 inch  
clearance between weight and outer  
plate.

To Adjust  
Bend rear guideplate.

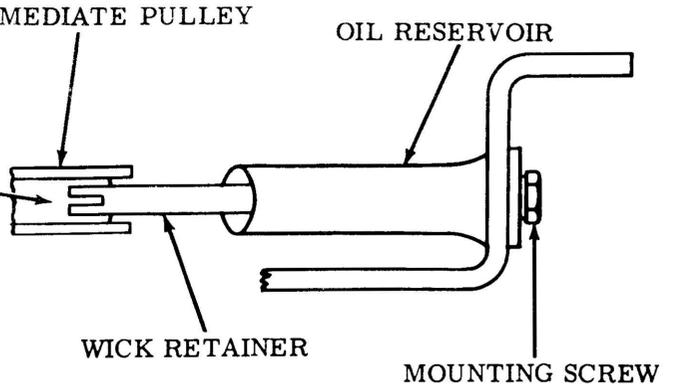
(2) Requirement  
Tape arm should be approximately  
centered between guides.

To Adjust  
Bend tape arm.

OIL RESERVOIR

(1) Requirement  
Wick retainer should be approximately  
centered on intermediate pulley groove.

To Adjust  
Position oil reservoir with mounting  
screw loosened.



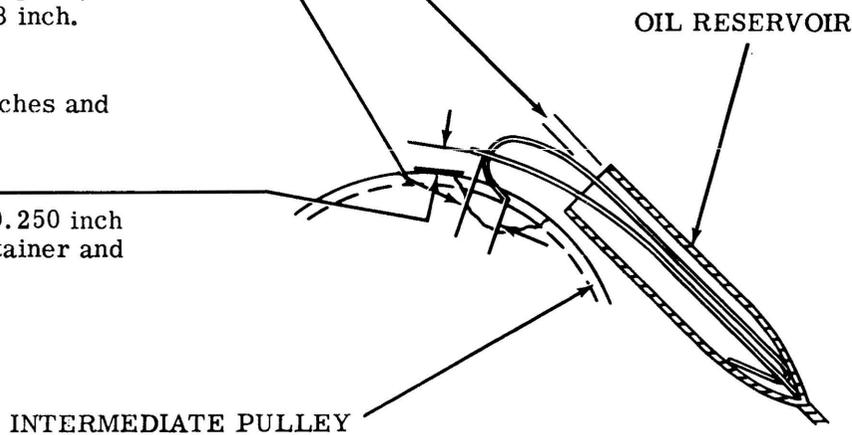
(2) Requirement  
With retainer in its normal position at  
bottom of reservoir there should be  
some clearance between wick and top  
of reservoir.

(3) Requirement  
Portion of wick which rides pulley should  
protrude approximately 7/8 inch.

To Adjust  
Remove wick from retainer notches and  
position to meet requirements.

(4) Requirement  
Min 0.125 inch---Max 0.250 inch  
clearance between wick retainer and  
intermediate pulley.

To Adjust  
Form wick retainer.



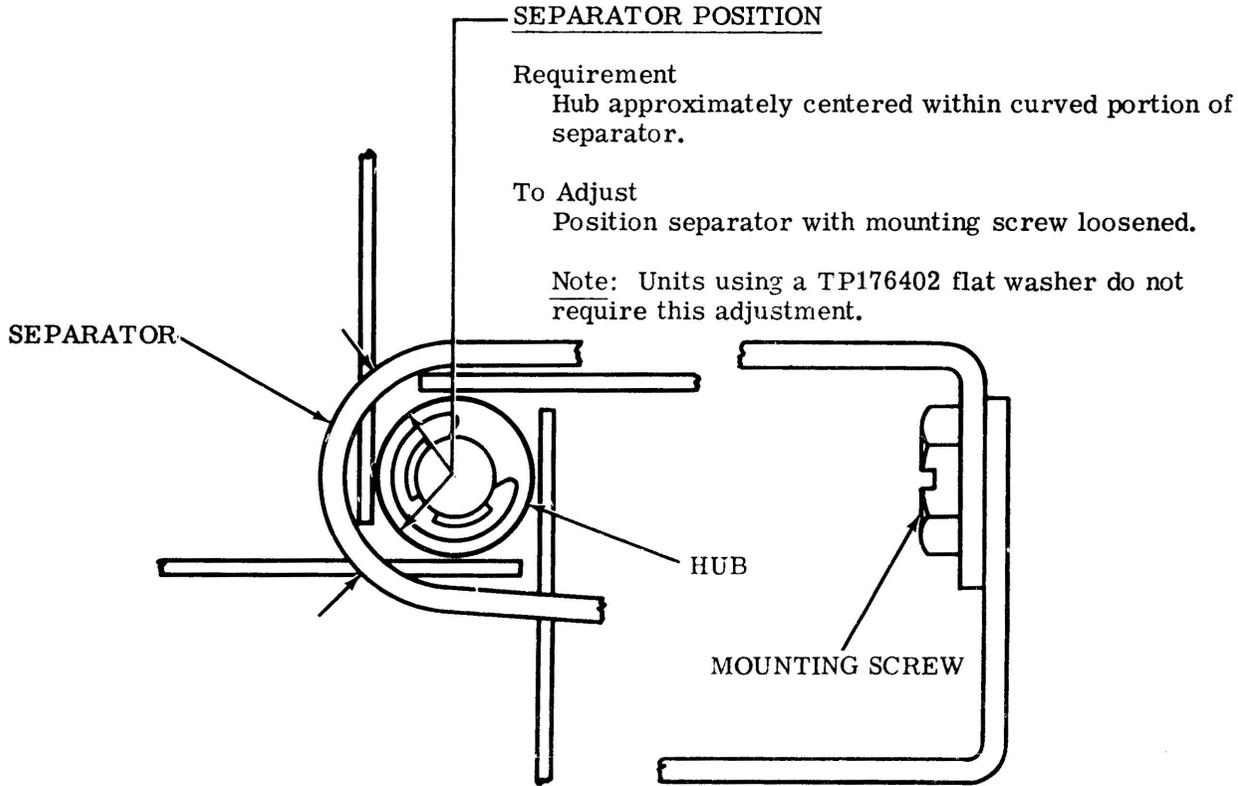
2.23 Tape Control Mechanism (continued)

TAPE SUPPLY REEL SHAFT ENDPLAY - SEE 2.07

TAPE SUPPLY REEL ALIGNMENT - SEE 2.08

TAPE STORAGE BIN SUPPORT BRACKET - SEE 2.09

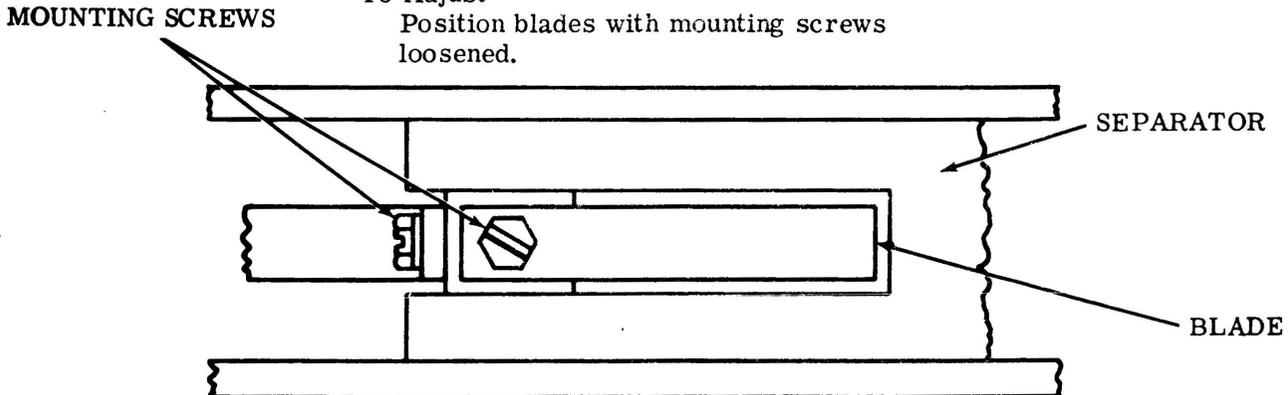
STORAGE BIN DETENT SPRINGS - SEE 2.09



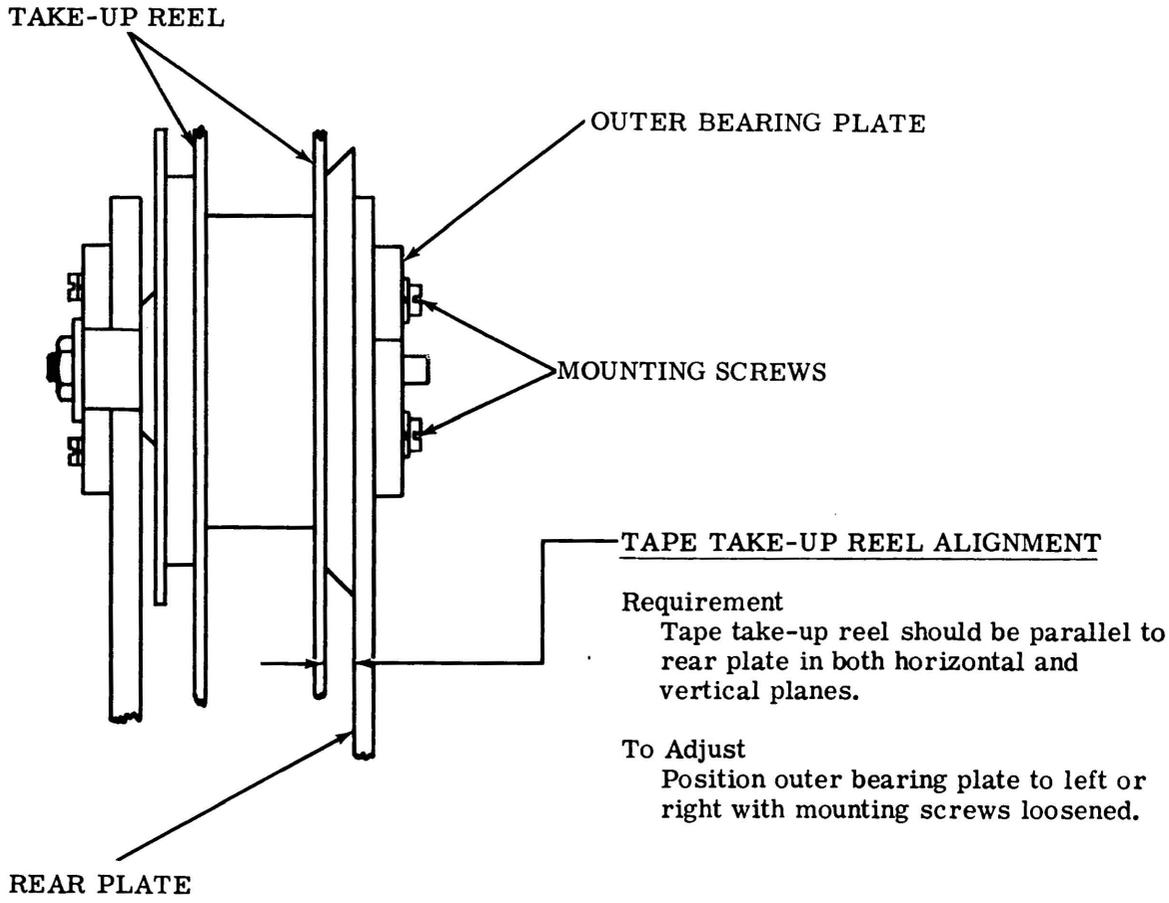
BLADE POSITION

Requirement  
Blades should be approximately centered in slot in separator. Check four blades.

To Adjust  
Position blades with mounting screws loosened.



2.24 Tape Control Mechanism (continued)



2.25 Tape Control Mechanism (continued)

CONTACT LEAF SPRINGS

Note: While making the following adjustments position detent bracket so protruding posts do not interfere with bakelite extension on leaf spring "D."

- (1) Requirement \_\_\_\_\_  
 Leaf spring "D" should be approximately parallel to switch bracket.

To Adjust  
 Bend leaf spring "D."

- (3) Requirement \_\_\_\_\_  
 Gap between nylon button on leaf spring "B" and bakelite extension on leaf spring "D"  
 Min Some---Max 0.015 inch

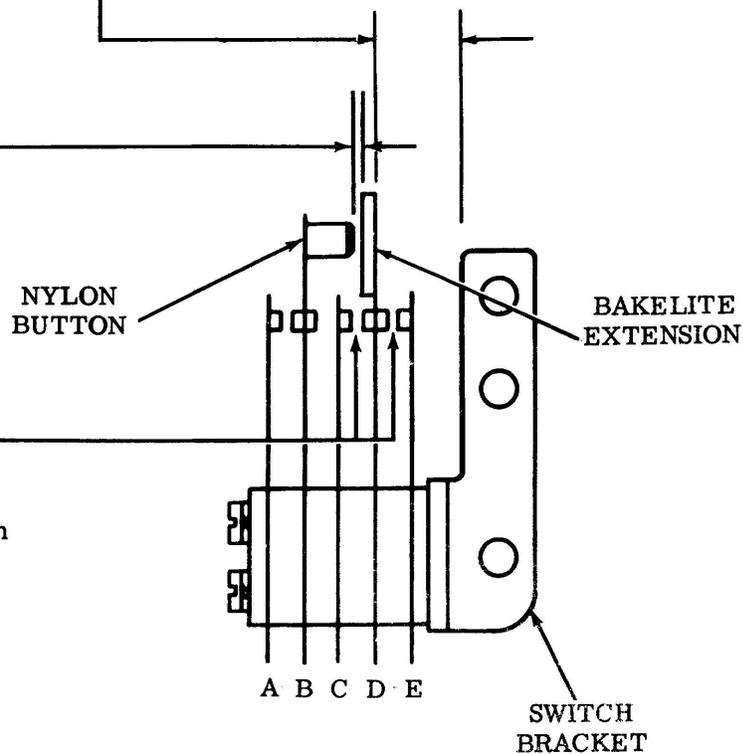
To Adjust  
 Bend leaf spring "B."

- (2) Requirement \_\_\_\_\_  
 Gap between leaf spring contacts "C-D" and "D-E"  
 Min 0.035 inch---Max 0.045 inch

To Adjust  
 Bend leaf springs "C" and "E."

- (4) Requirement \_\_\_\_\_  
 When bakelite extension on leaf spring "D" is moved to left, contacts "A-B" and "C-D" should close simultaneously (within 0.010 inch).

To Adjust  
 Bend leaf spring "A."



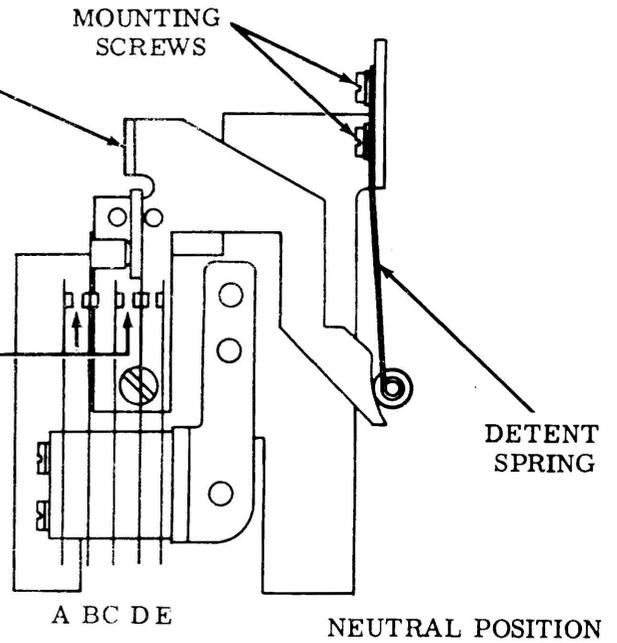
2.26 Tape Control Mechanism (continued)

DETENT SPRING

Note: Preceding adjustments should be made prior to following adjustments.

- (1) Requirement \_\_\_\_\_  
 With detent roller in neutral position (roller on low portion of detent lever camming surface), gap between contacts "A-B" and "C-D"  
 Min 0.010 inch---Max 0.020 inch

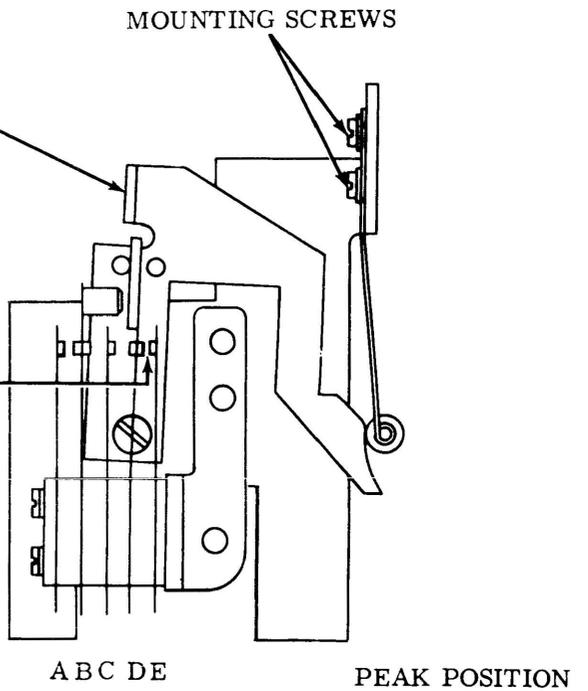
To Adjust  
 Position by moving detent spring vertically with its mounting screws loosened.



**CAUTION: PRIOR TO TIGHTENING DETENT SPRING MOUNTING SCREWS, CHECK THAT ROLLER RIDES FULLY ON DETENT LEVER CAMMING SURFACE.**

- (2) Requirement \_\_\_\_\_  
 When roller is on peak of detent lever camming surface, gap between leaf spring contacts "D-E"  
 Min 0.010 inch---Max 0.035 inch

To Adjust  
 Bend leaf spring "E."



TIGHT-TAPE ALARM-PRELIMINARY - SEE 2.12

2.27 Tape Control Mechanism (continued)

**\*LOW TAPE ALARM**

**Requirement**

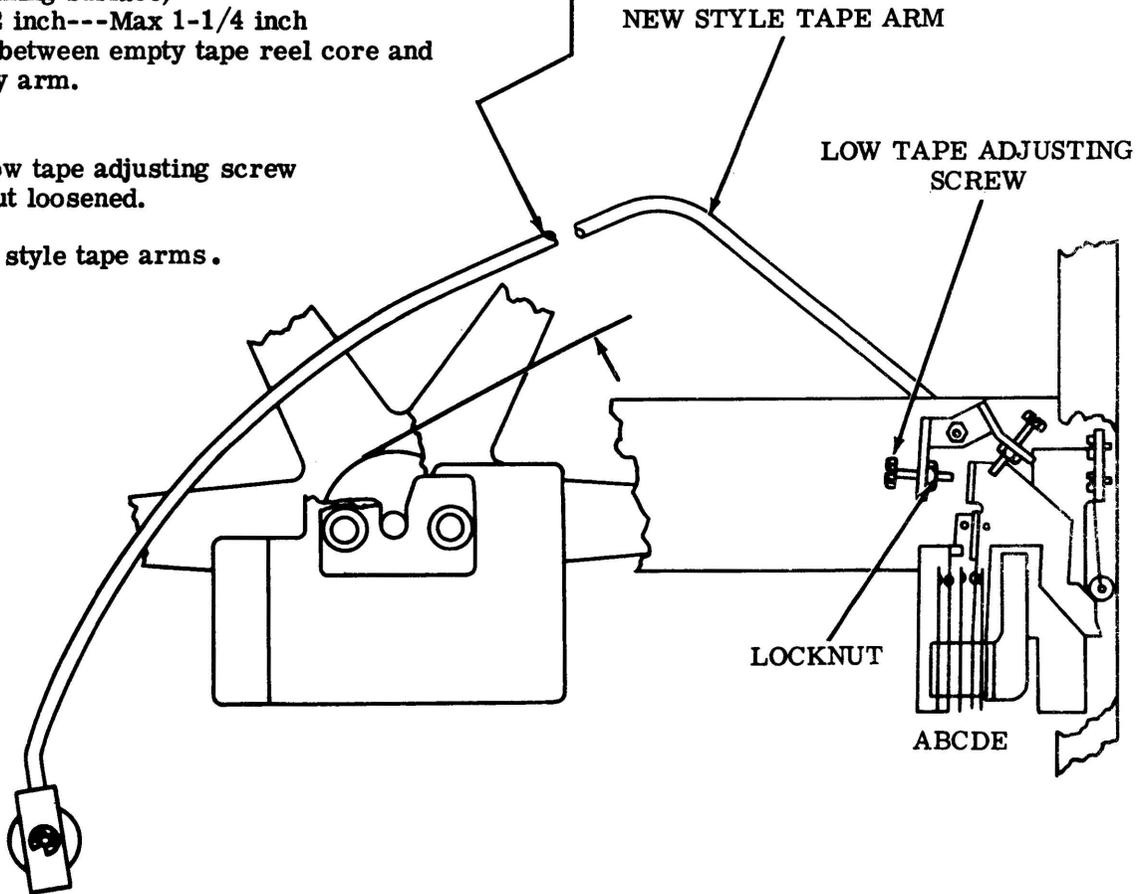
When low tape adjusting screw just closes contacts "D-E" through detent action (roller on peak of detent lever camming surface)

Min 1/2 inch---Max 1-1/4 inch clearance between empty tape reel core and tape supply arm.

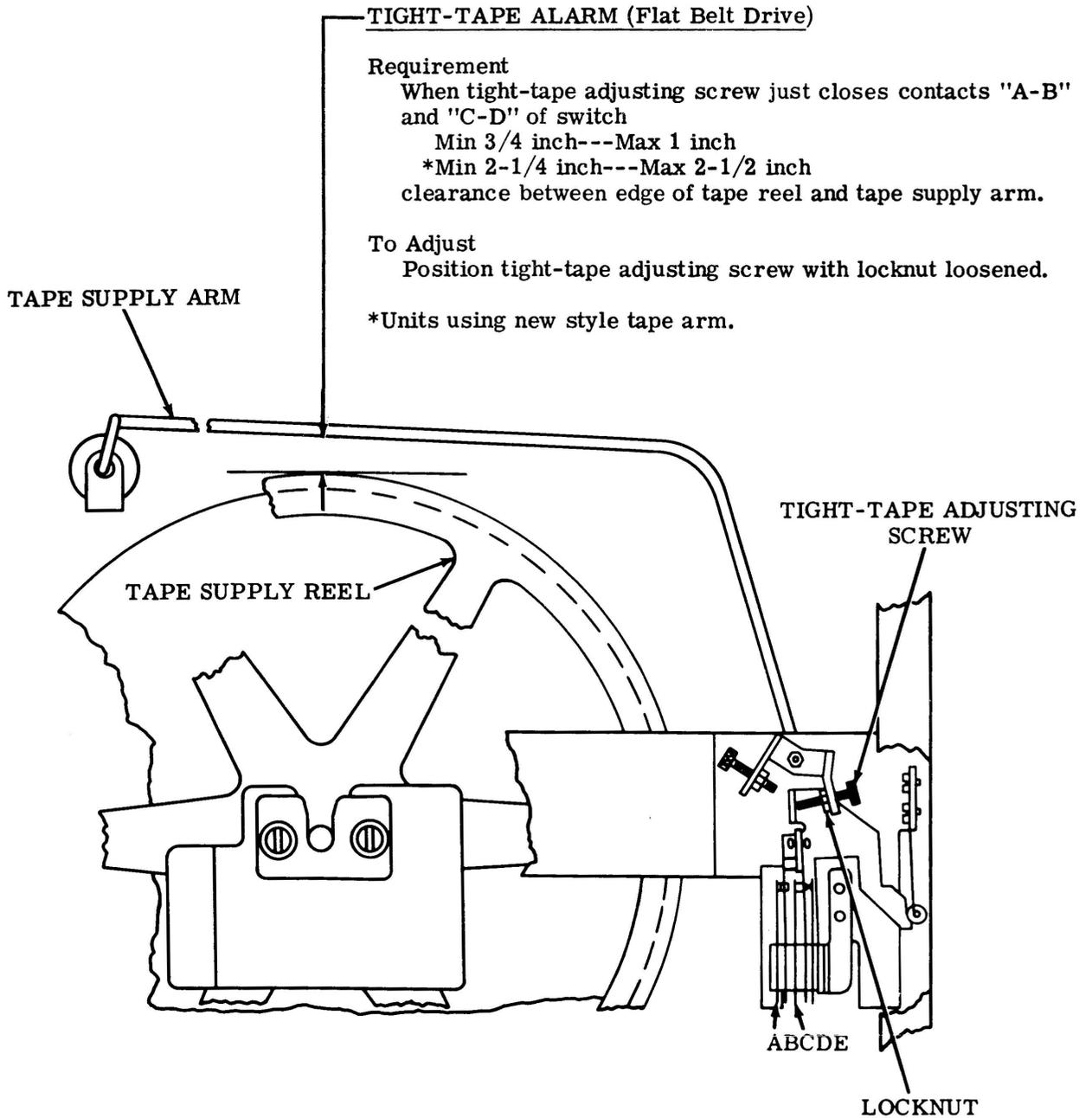
**To Adjust**

Position low tape adjusting screw with locknut loosened.

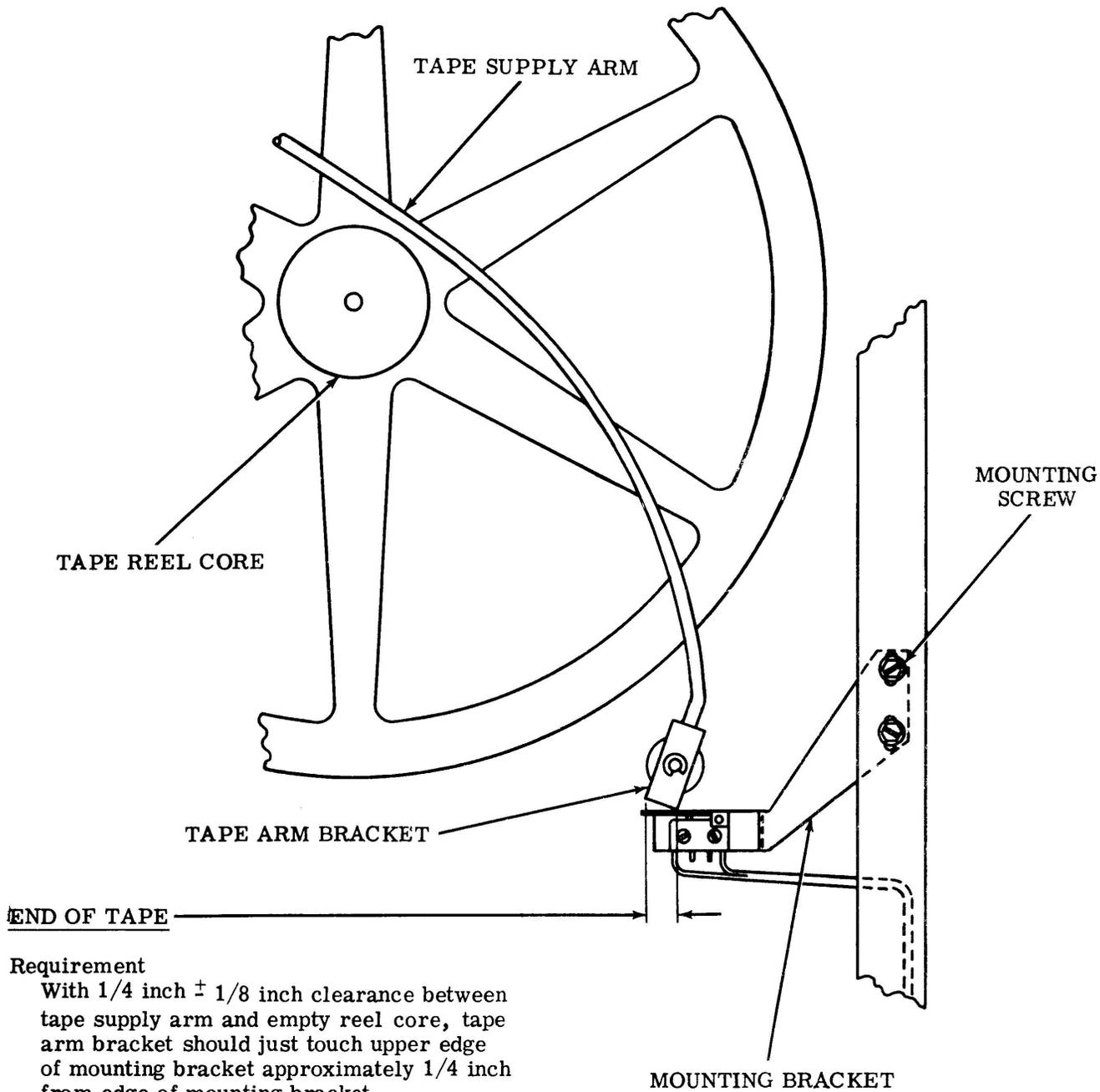
\*Old and new style tape arms.



2.28 Tape Control Mechanism (continued)



2.29 Tape Control Mechanism (continued)



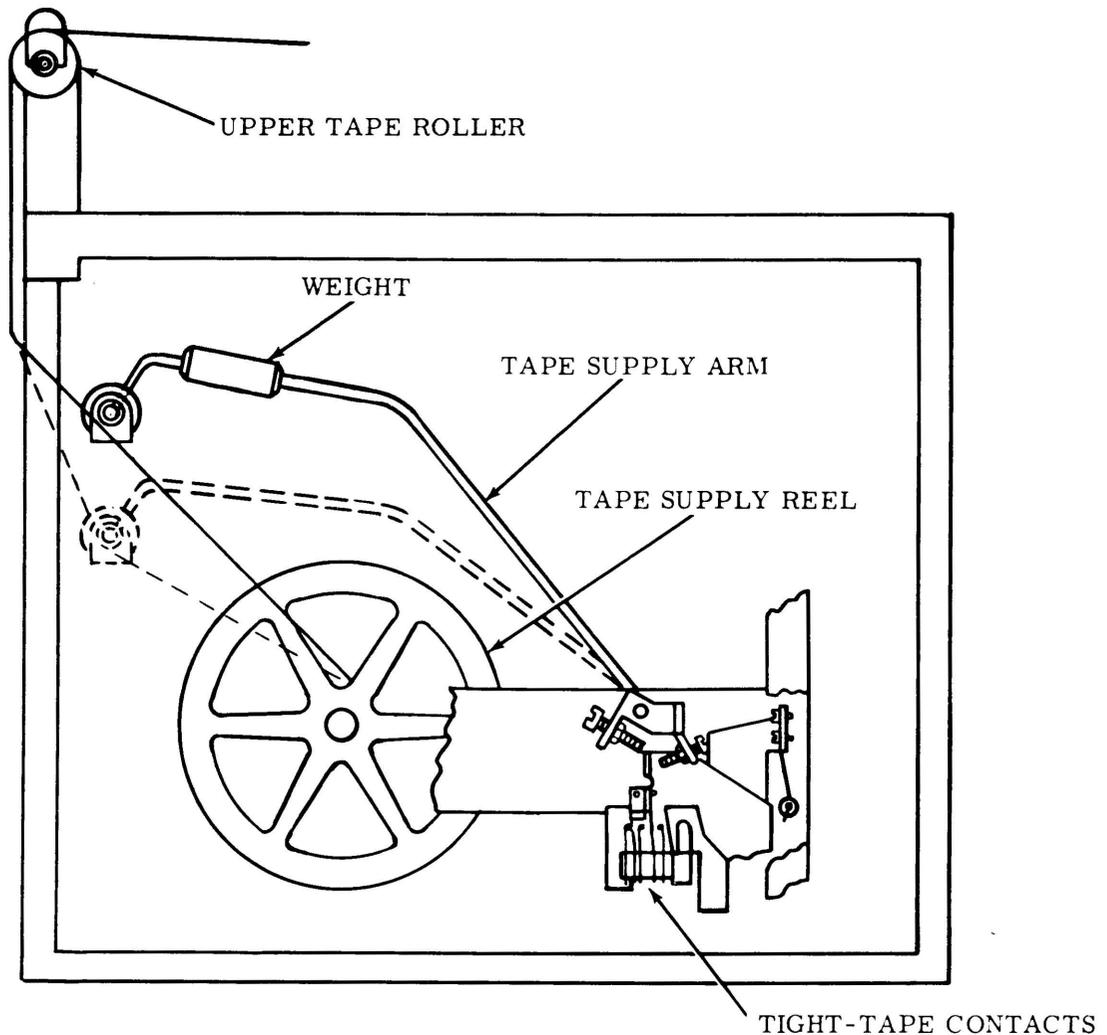
Requirement

With  $1/4$  inch  $\pm$   $1/8$  inch clearance between tape supply arm and empty reel core, tape arm bracket should just touch upper edge of mounting bracket approximately  $1/4$  inch from edge of mounting bracket.

To Adjust

With mounting screws loosened, position mounting bracket up or down to meet requirement. Slight bending of tape arm may be necessary.

## 2.30 Tape Control Mechanism (continued)

TIGHT-TAPE ALARM (HIGH-TO-LOW SPEED)

## (1) Requirement

With tape routed as in 5.03, HIGH TO LOW SPEED REPERFORATOR TRANSMITTER SET, cause a taut tape condition between upper roller and empty roll of tape on the tape supply reel. Lower tape supply arm by loosening tape held at upper tape roller by about five character lengths ( $5/10$  inch). At this position, tight-tape alarm contacts must be closed. Loosen tape an additional three character lengths ( $3/10$  inch). Contacts should open.

## To Adjust

Loosen tight-tape switch adjusting screw locknut. Position adjusting screw to meet requirement. Tighten locknut.

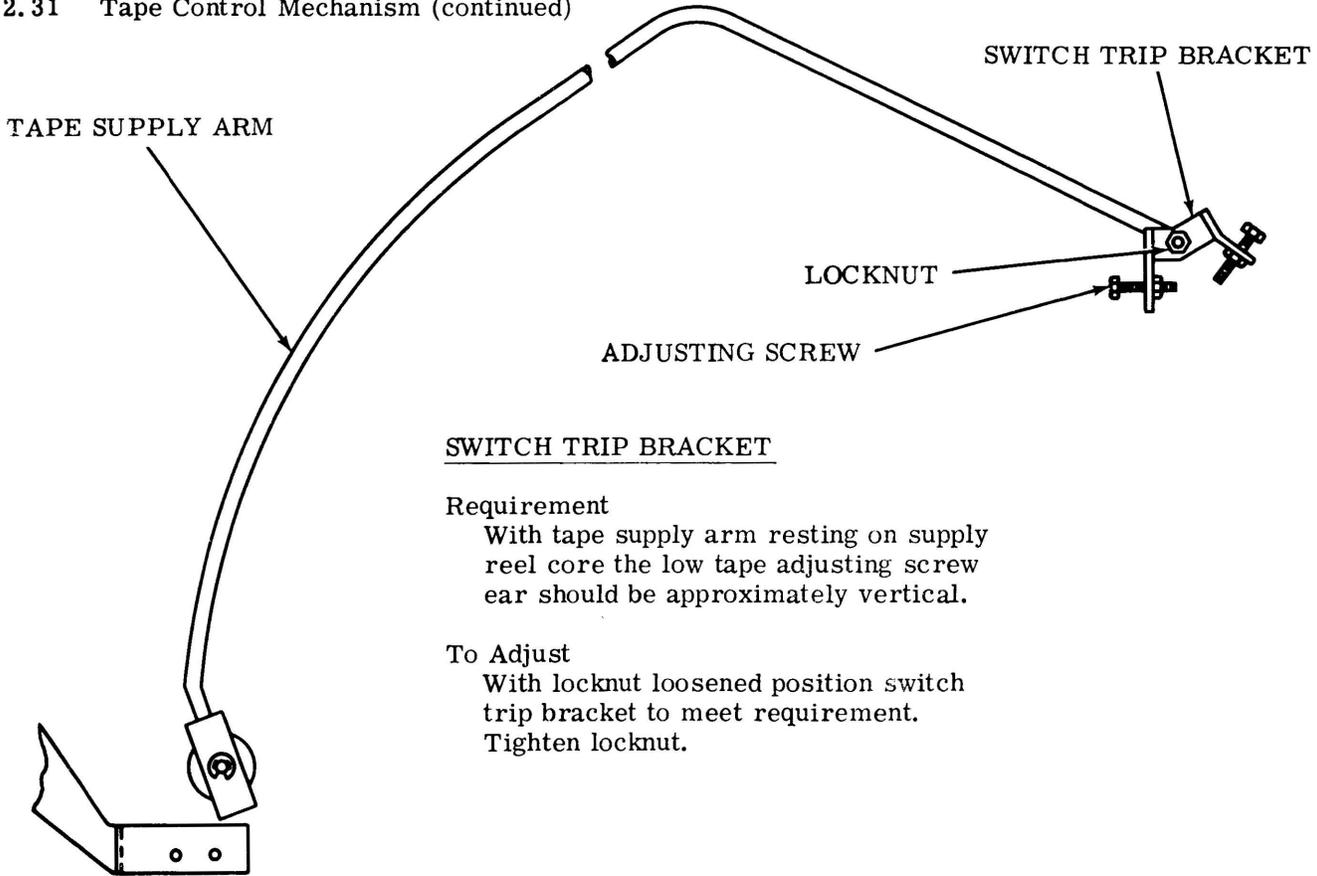
## (2) Requirement

Tight-tape alarm condition should not occur when the reperforator pulls tape from a full tape supply reel.

## To Adjust

Loosen screw on weight. Position weight toward roller to meet requirement. Tighten screw.

2.31 Tape Control Mechanism (continued)



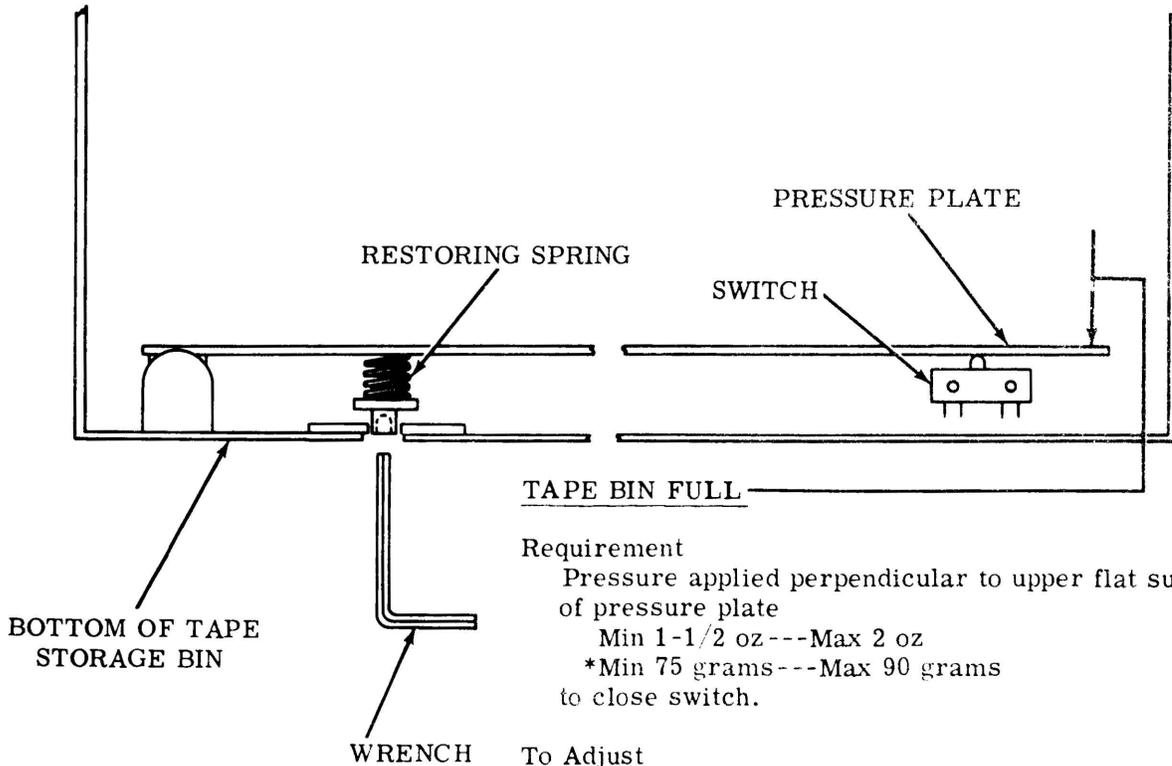
SWITCH TRIP BRACKET

Requirement

With tape supply arm resting on supply reel core the low tape adjusting screw ear should be approximately vertical.

To Adjust

With locknut loosened position switch trip bracket to meet requirement. Tighten locknut.



Requirement

Pressure applied perpendicular to upper flat surface of pressure plate

Min 1-1/2 oz --- Max 2 oz

\*Min 75 grams --- Max 90 grams to close switch.

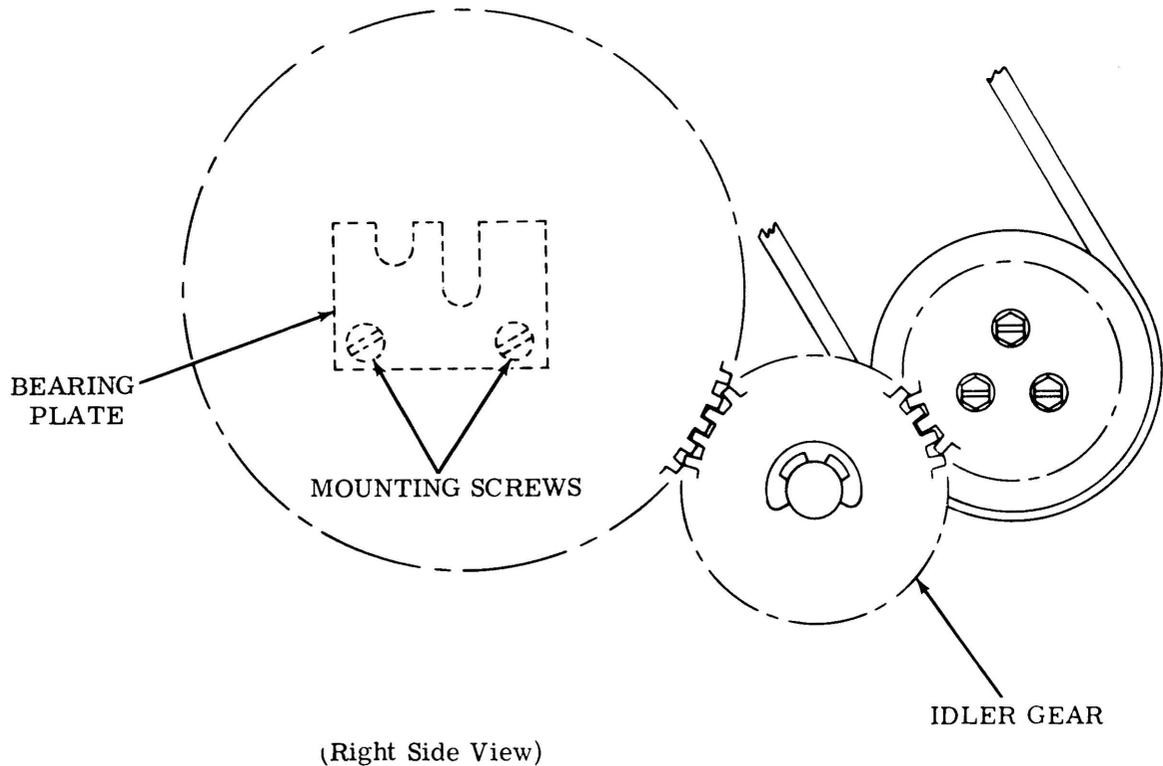
To Adjust

Insert wrench into socket. Turn left or right to increase or decrease force bearing against pressure plate.

\*Units with V belt drive.

## HIGH SPEED TAPE HANDLING STAND (V BELT WINDER)

## 2.32 Tape Drive Mechanism

TAPE TAKE-UP REEL ASSEMBLY GEAR AND IDLER GEAR MESH**Requirement**

With take-up reel in position, there should be a barely perceptible amount of backlash between tape reel assembly gear and idler gear at point where backlash is least.

**To Adjust**

With mounting screws loosened, position bearing bracket (attached to left side frame) to meet requirement.

2.33 Tape Control Mechanism

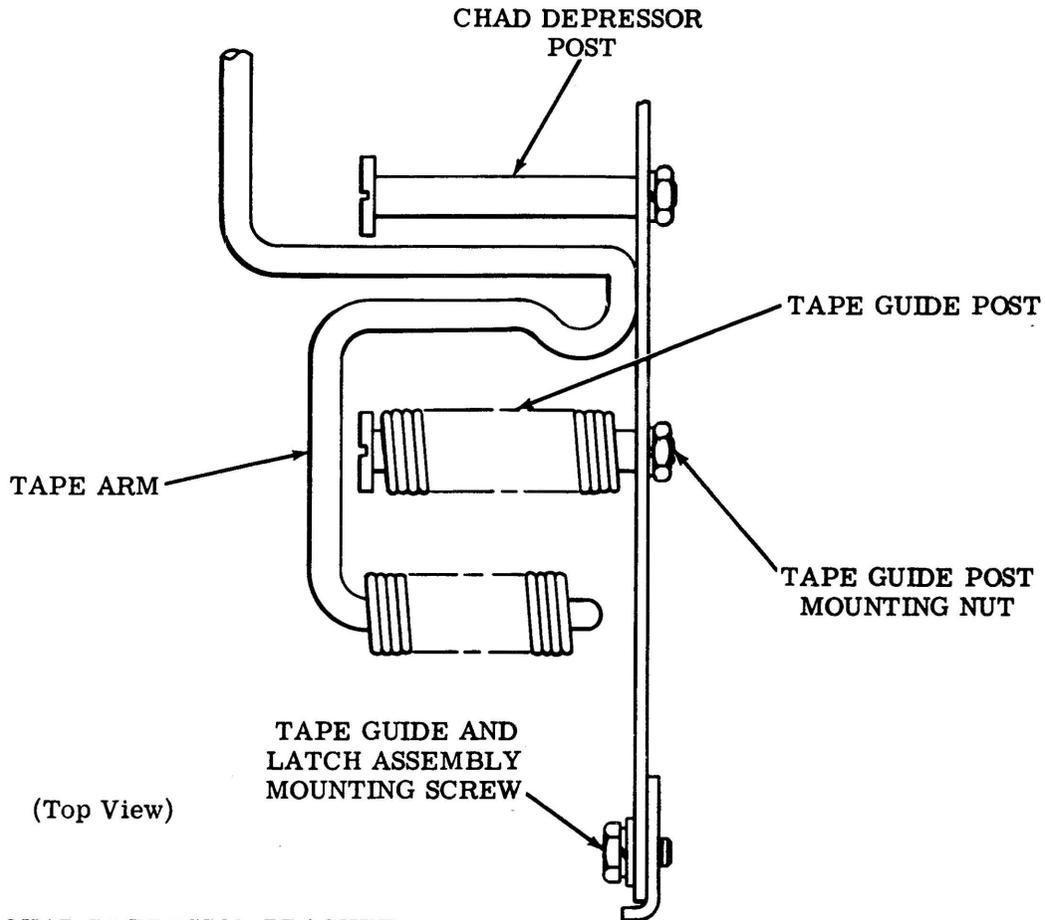
TAPE ARM

Requirement

Tape guiding edge of tape arm should be approximately parallel to tape guide posts.

To Adjust

Bend tape guide arm to meet requirement.



TAPE GUIDE AND CHAD DEPRESSOR BRACKET

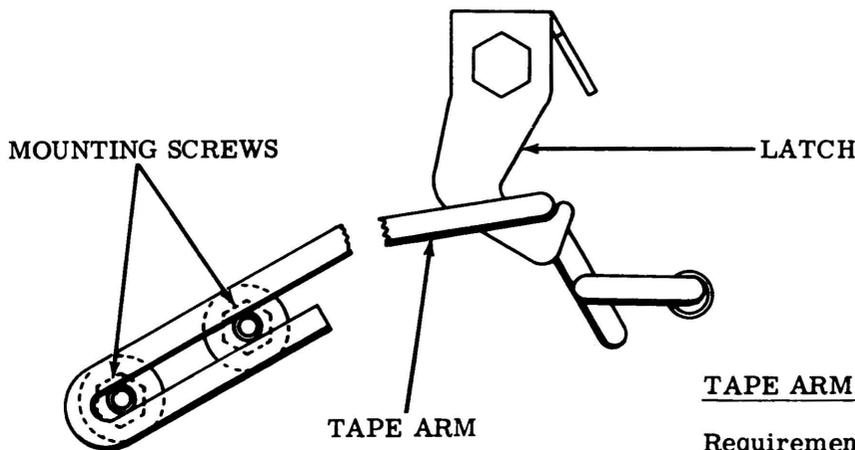
Requirement

Align tape guiding edges of tape arm with chad depressor post and tape guide post. The edges of tape arm and posts should be equally spaced from each other, as gauged by eye.

To Adjust

Loosen tape guide post mounting nut. Position tape guide post to meet requirement. If requirement cannot be met, loosen tape guide and latch assembly mounting screws and move assembly up or down to meet requirement. Recheck tape arm latch adjustment.

2.34 Tape Control Mechanism (continued)



(Left Side View)

TAPE ARM LATCH

**Requirement**

When tape arm is moved upward against its stop and then released, the tape arm should be fully engaged by its latch.

**To Adjust**

With tape arm mounting screws loosened, slide tape arm in or out to obtain full engagement.

2.35 Tape Drive Mechanism (continued)

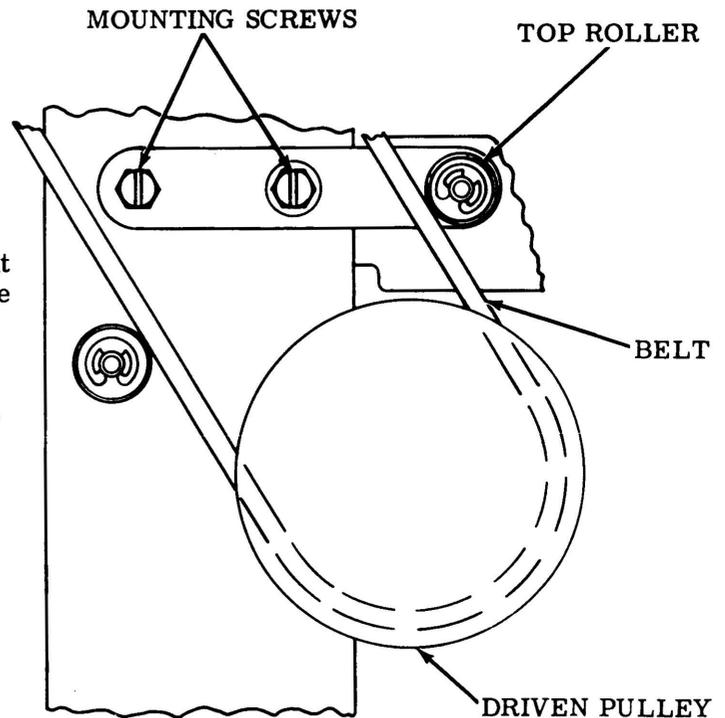
DRIVEN PULLEY BELT GUIDE ROLLER

**Requirement**

With V belt held taut, top driven pulley belt guide roller should just touch outer surface of belt.

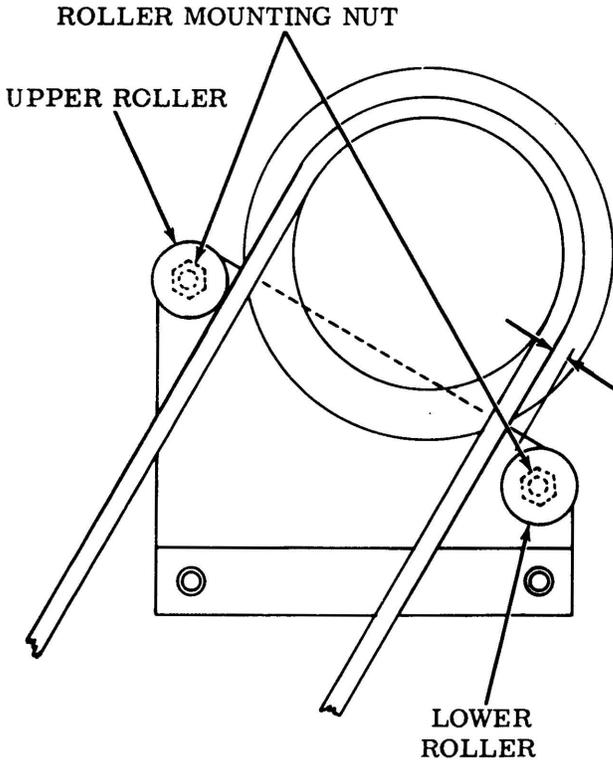
**To Adjust**

Loosen guide roller arm mounting screws. Rotate roller arm to meet requirement.



(Right Side View)

2.36 Tape Drive Mechanism (continued)



(Left Side View)

DRIVER PULLEY BELT UPPER  
GUIDE ROLLER

**Requirement**

With V belt held taut, upper driver pulley belt guide roller should just touch outer surface of belt.

**To Adjust**

Loosen roller mounting nut. Position roller to meet requirement.

DRIVER PULLEY BELT LOWER  
GUIDE ROLLER

**Requirement**

With V belt held taut, driver pulley belt lower guide roller should be approximately 1/16 inch from outer surface of belt.

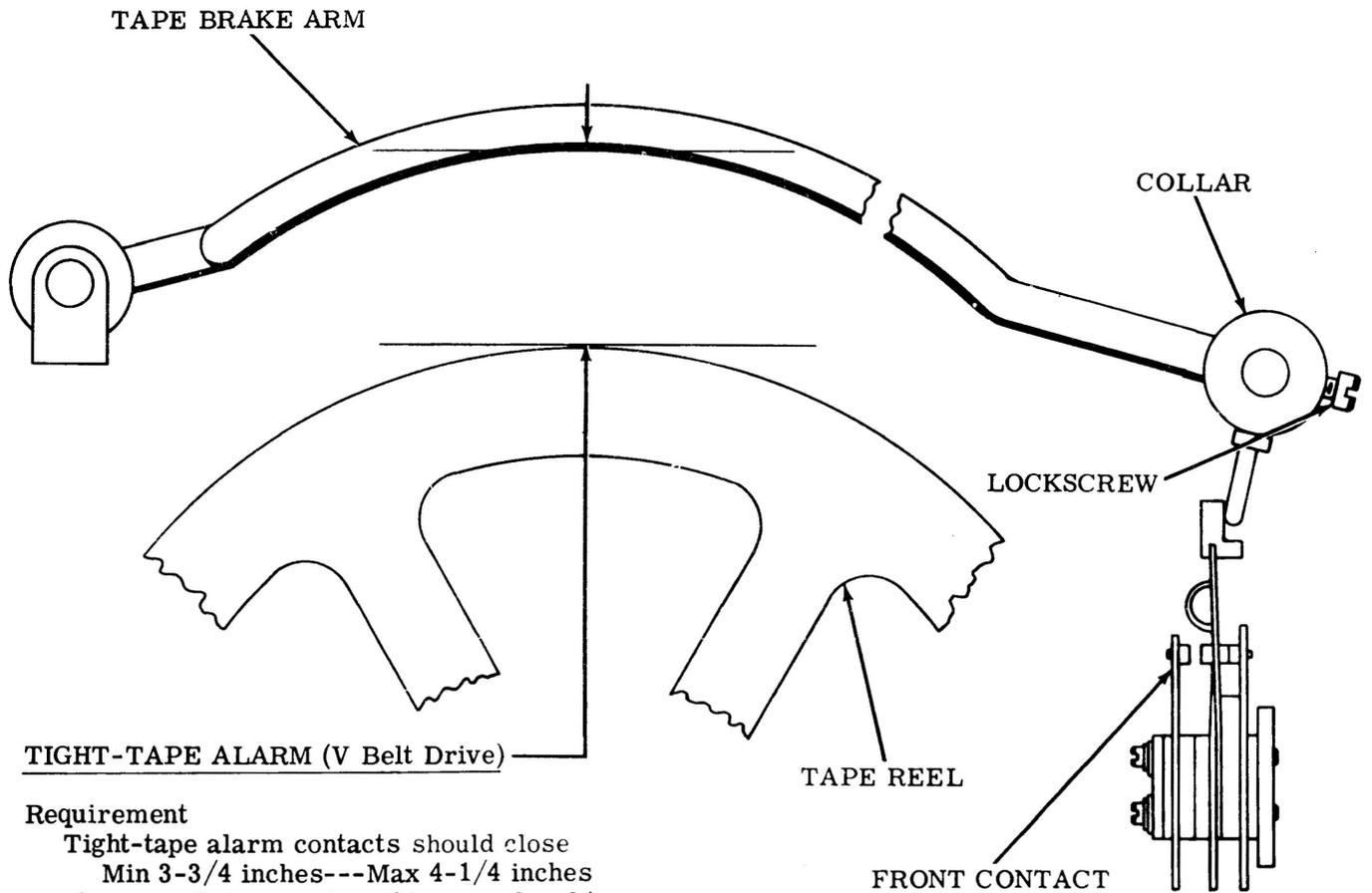
**To Adjust**

Loosen roller mounting nut. Position roller to meet requirement.

TAPE SUPPLY REEL ALIGNMENT - SEE 2.08

TAPE SUPPLY REEL SHAFT ENDPLAY - SEE 2.07

2.37 Tape Control Mechanism (continued)



TIGHT-TAPE ALARM (V Belt Drive)

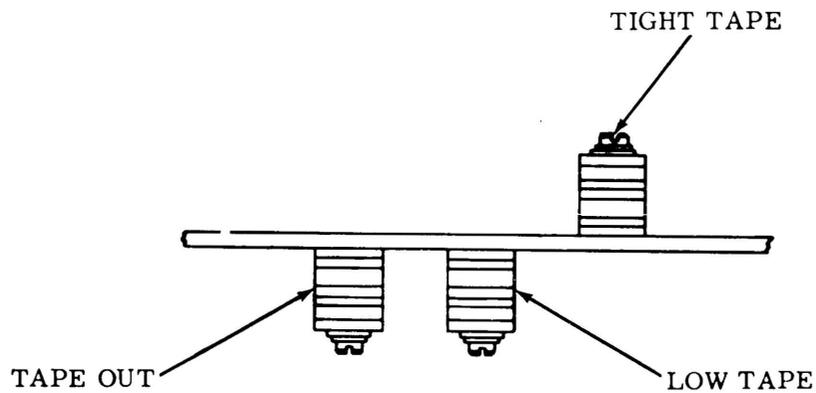
**Requirement**

Tight-tape alarm contacts should close  
 Min 3-3/4 inches---Max 4-1/4 inches  
 clearance between edge of tape reel and tape  
 brake arm.

**To Adjust**

With tight-tape contact operating post collar  
 lock screw loosened, position post so that  
 swinger contact transfers from front contact  
 to rear contact. Tighten lock screw.

(Right Side View)



(Rear Top View)

TAPE CONTACT ARRANGEMENT

2.38 Tape Control Mechanism (continued)

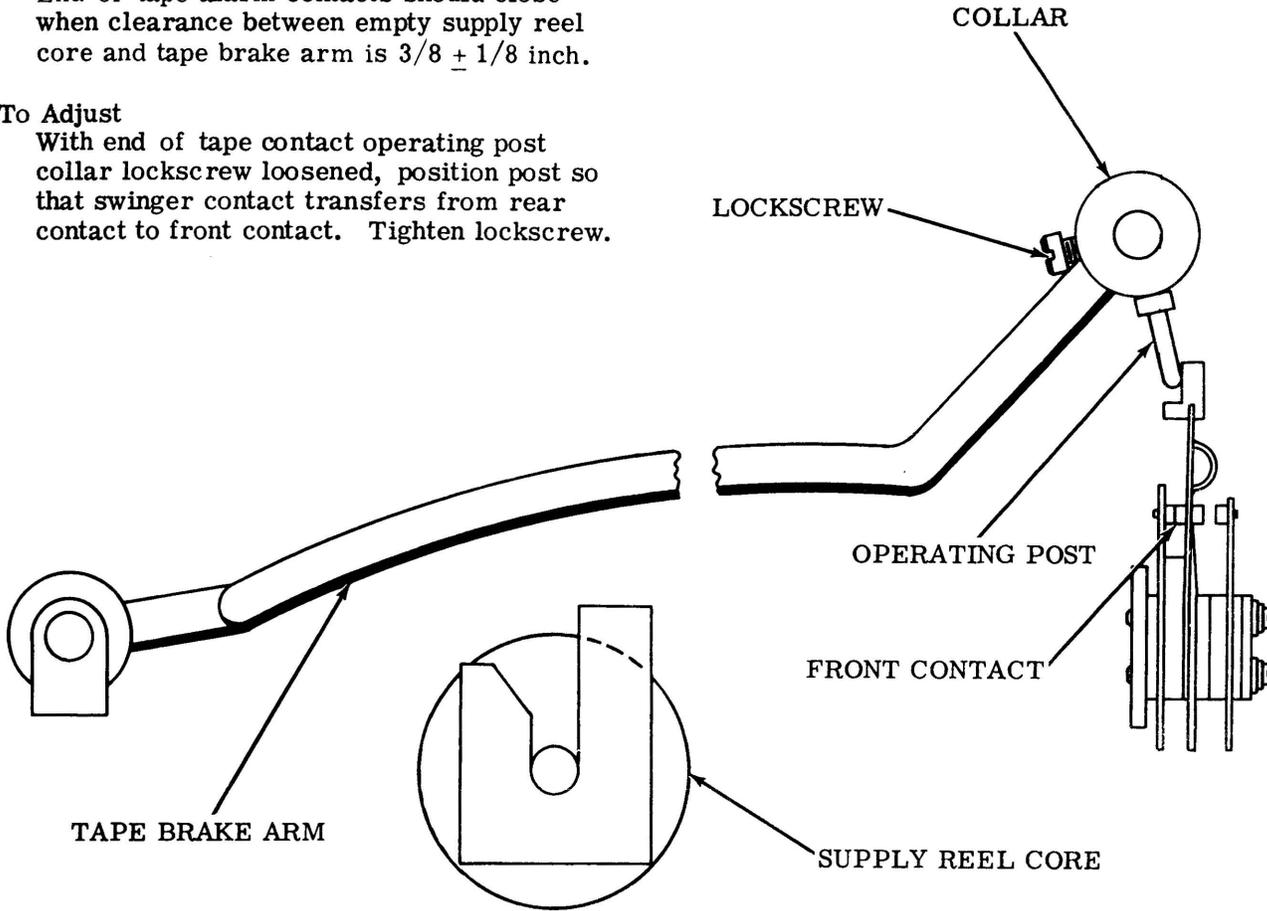
END OF TAPE CONTACT

**Requirement**

End of tape alarm contacts should close when clearance between empty supply reel core and tape brake arm is  $3/8 \pm 1/8$  inch.

**To Adjust**

With end of tape contact operating post collar lock screw loosened, position post so that swinger contact transfers from rear contact to front contact. Tighten lock screw.



(Right Side View)

LOW TAPE CONTACT

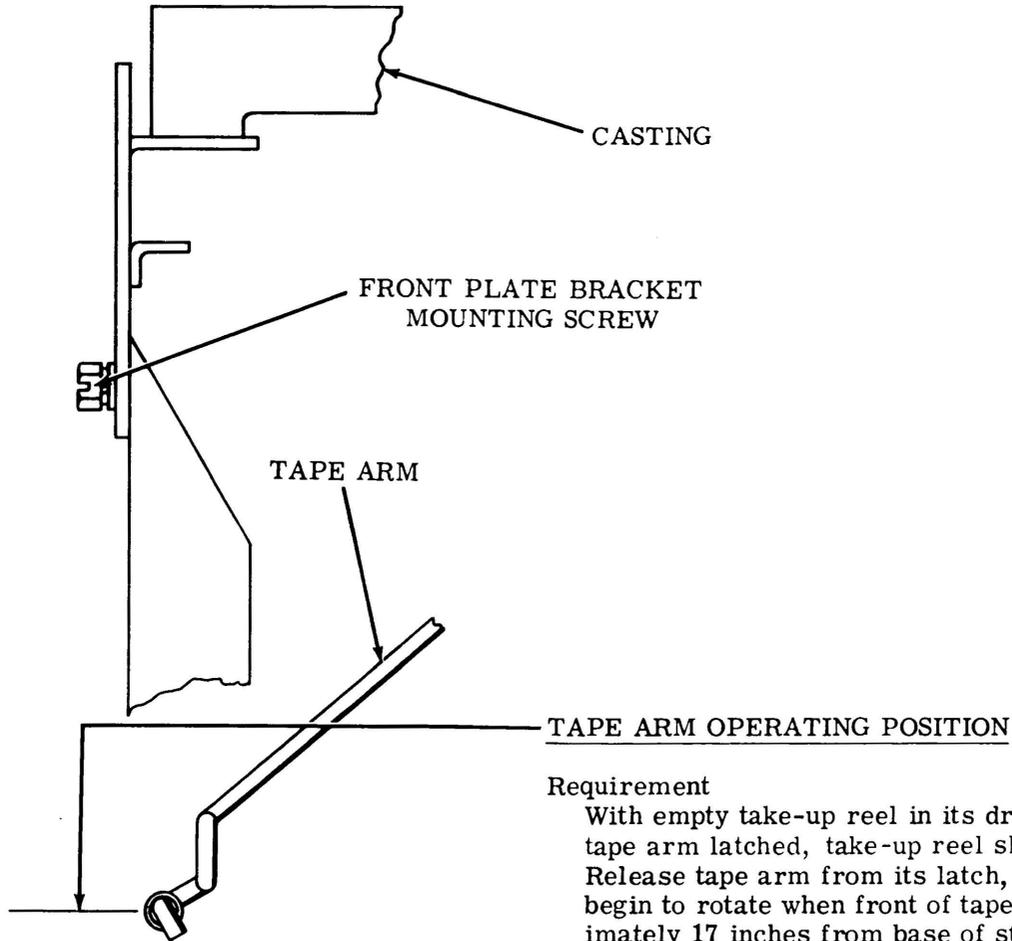
**Requirement**

Low tape alarm contacts should close  
Min 1/2 inch---Max 1-1/4 inches  
clearance between empty supply reel core and  
tape brake arm.

**To Adjust**

With low tape contact operating post collar lock screw loosened, position post so that swinger contact transfers from rear contact to front contact. Tighten lock screw.

2.39 Tape Control Mechanism (continued)

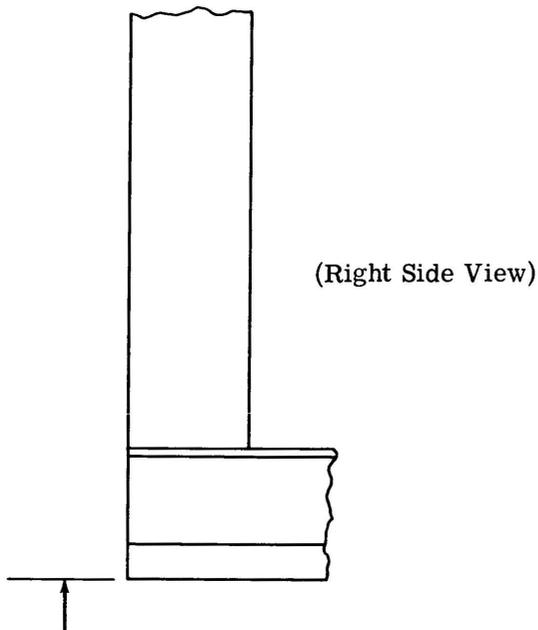


Requirement

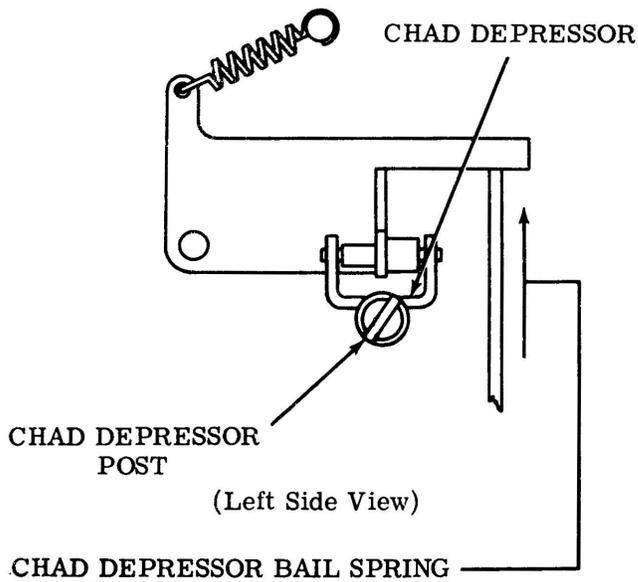
With empty take-up reel in its driving position and tape arm latched, take-up reel should not rotate. Release tape arm from its latch, the reel should begin to rotate when front of tape arm is approximately 17 inches from base of stand.

To Adjust

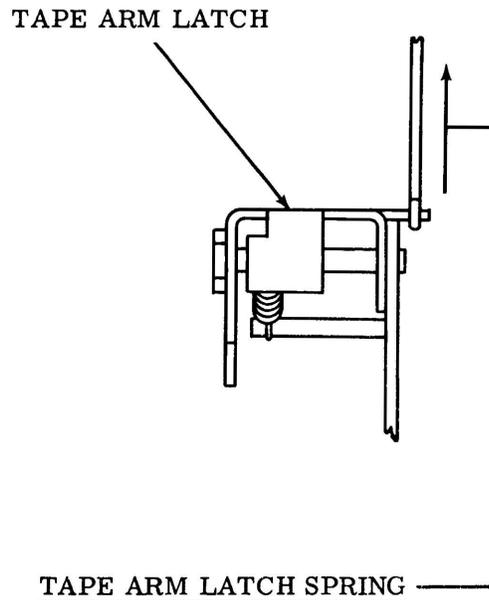
With front plate bracket mounting screws loosened, position bracket to meet requirement. If requirement cannot be met it may be necessary to bend tape arm. Recheck tape arm adjustments.



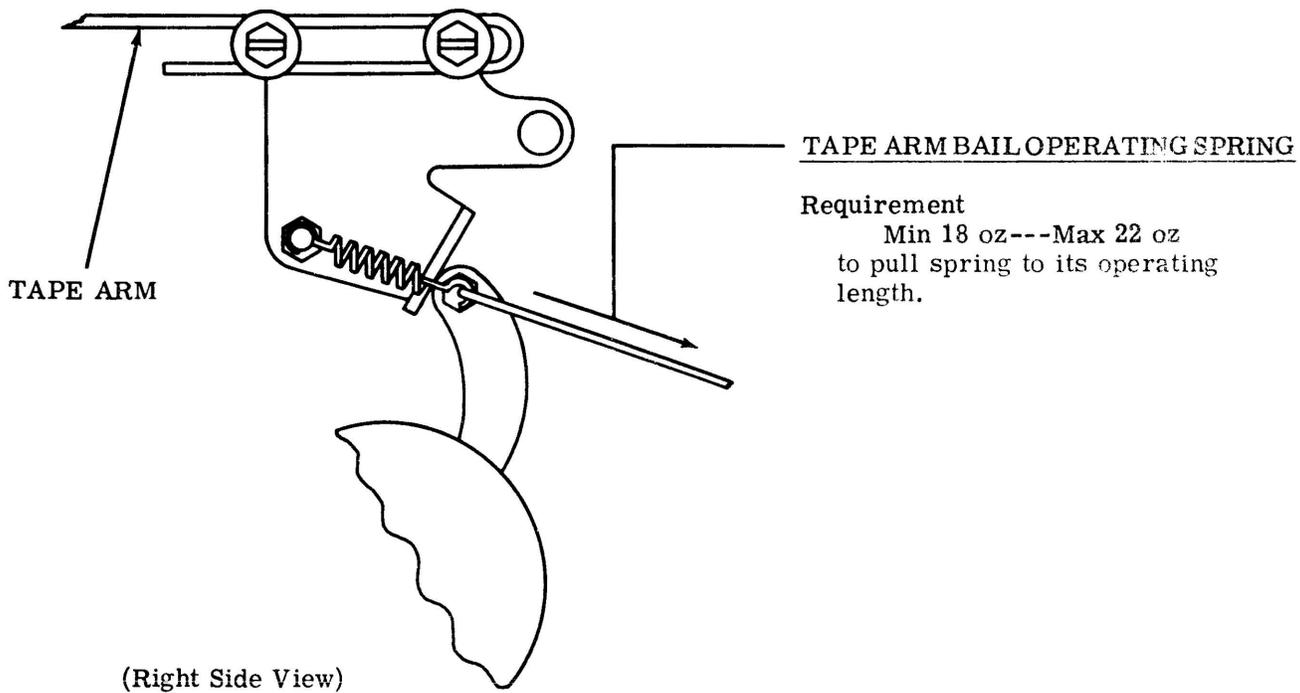
2.40 Tape Control Mechanism (continued)



Requirement  
Min 6 oz---Max 10 oz  
to pull depressor away from  
downstop post.

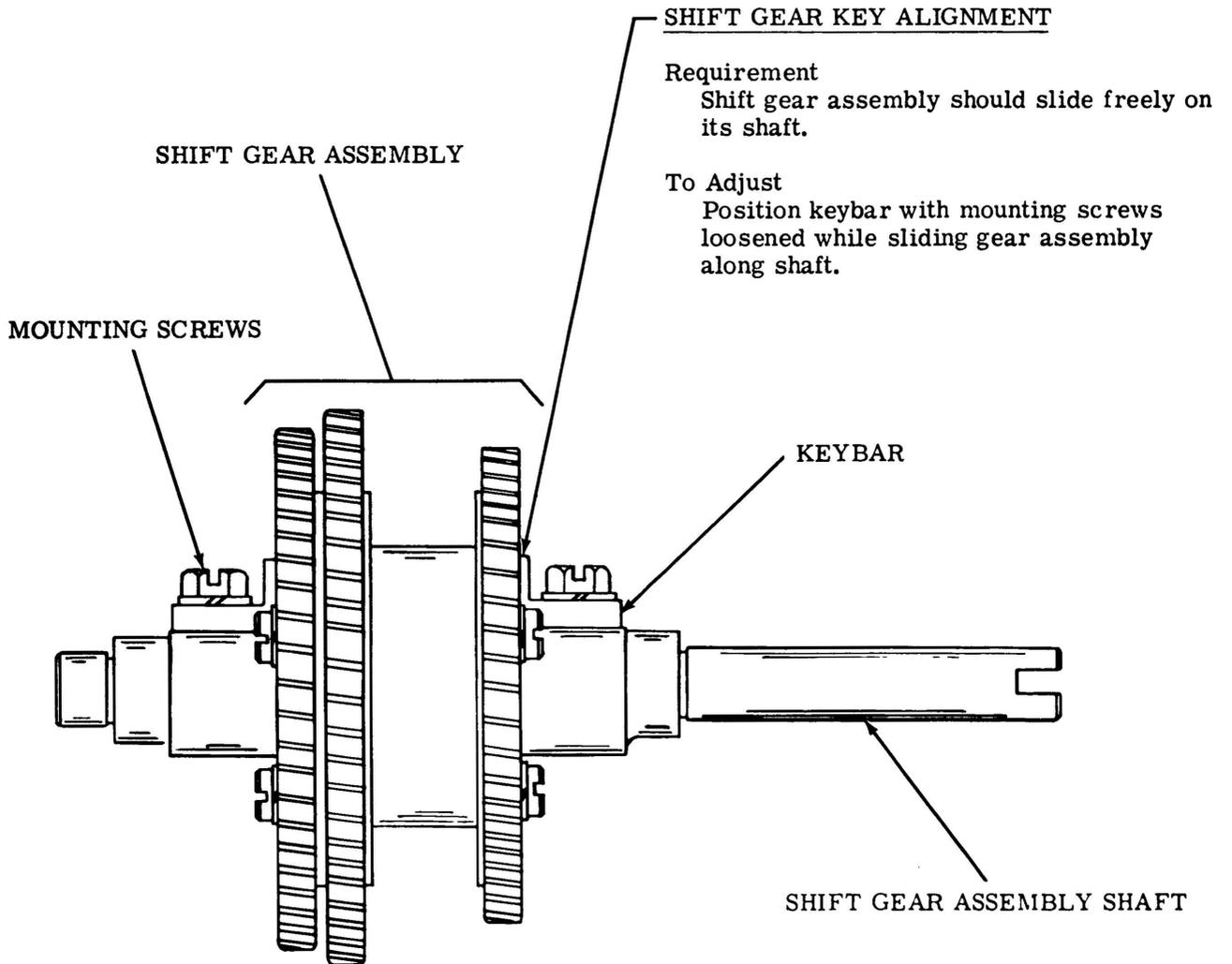


Requirement  
Min 1-1/2 oz---Max 2-1/2 oz  
to start latch moving.

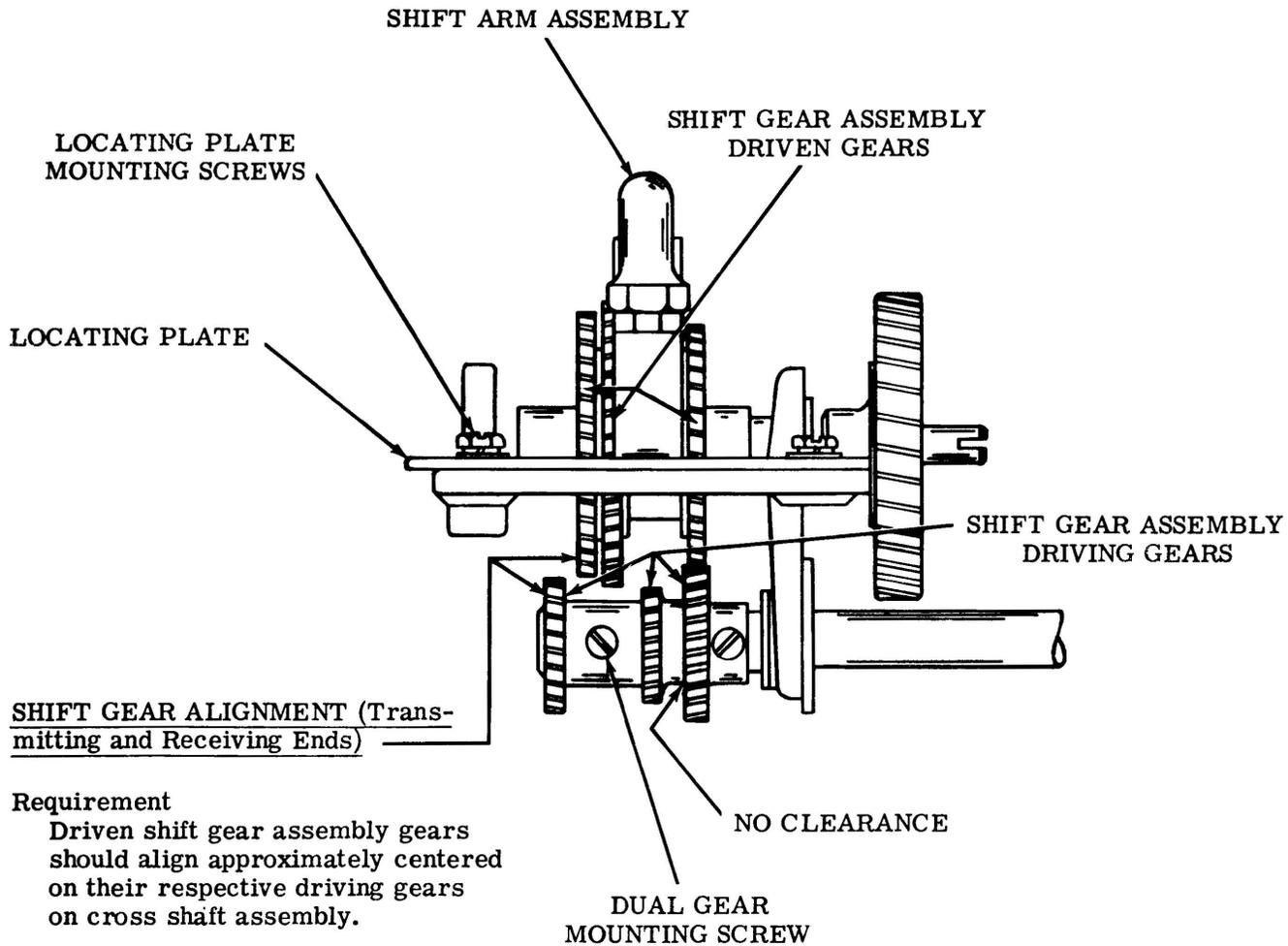


3. REPERFORATOR TRANSMITTER BASE

3.01 Tape Drive Mechanism



3.02 Tape Drive Mechanism (continued)



**Requirement**

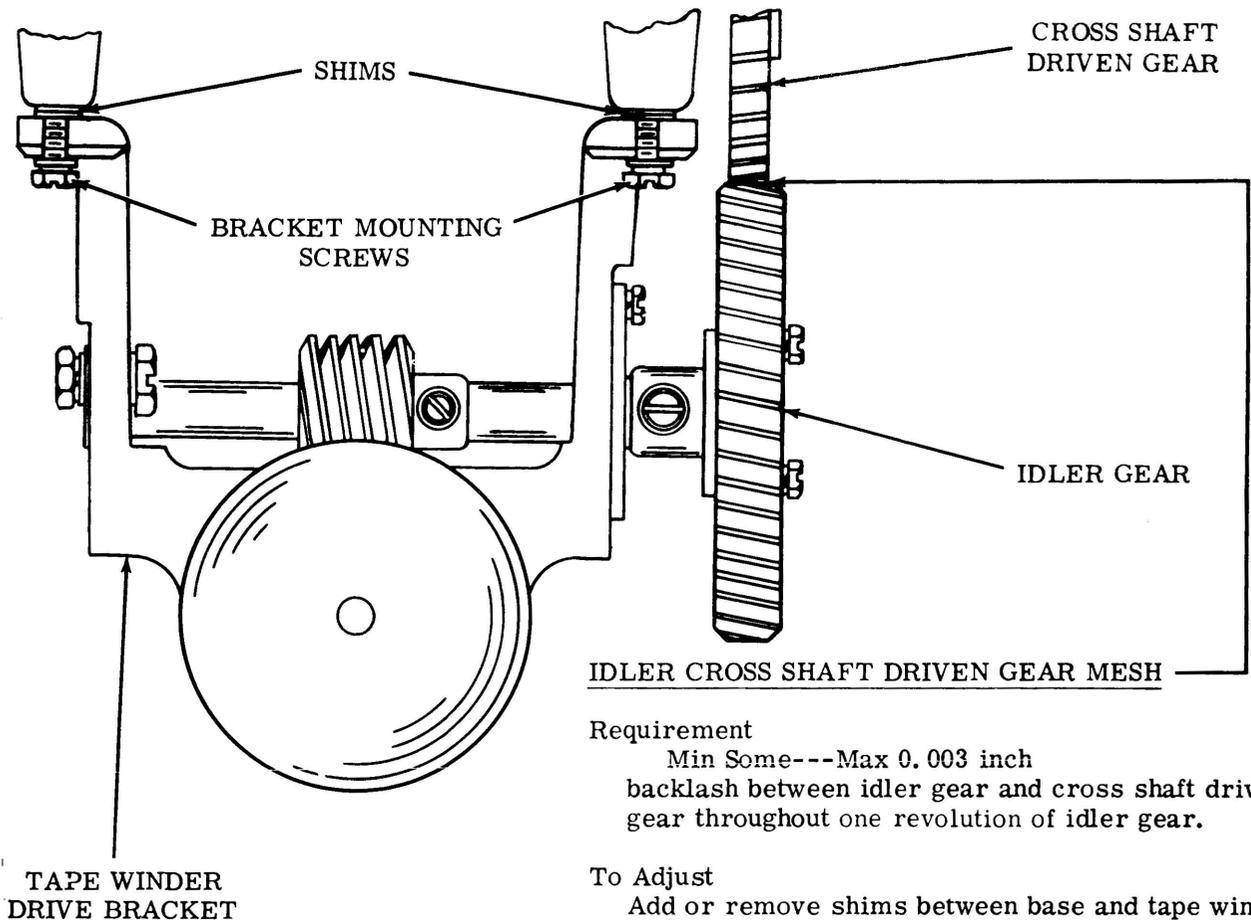
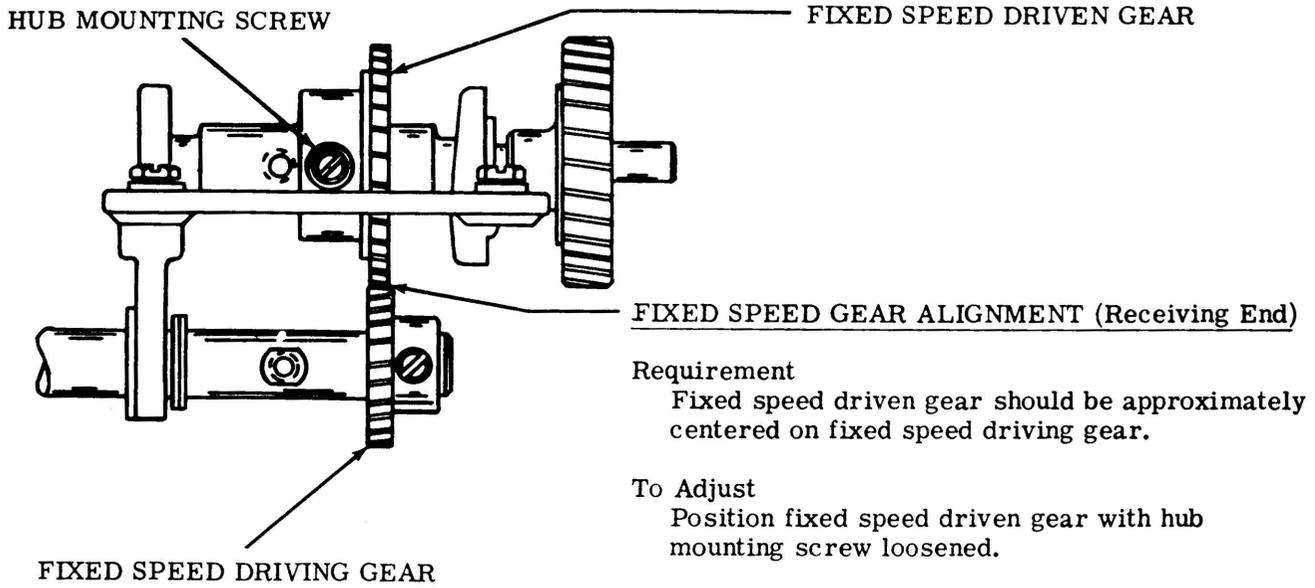
Driven shift gear assembly gears should align approximately centered on their respective driving gears on cross shaft assembly.

**To Adjust**

Position locating plate with mounting screws loosened. Check three shift positions.

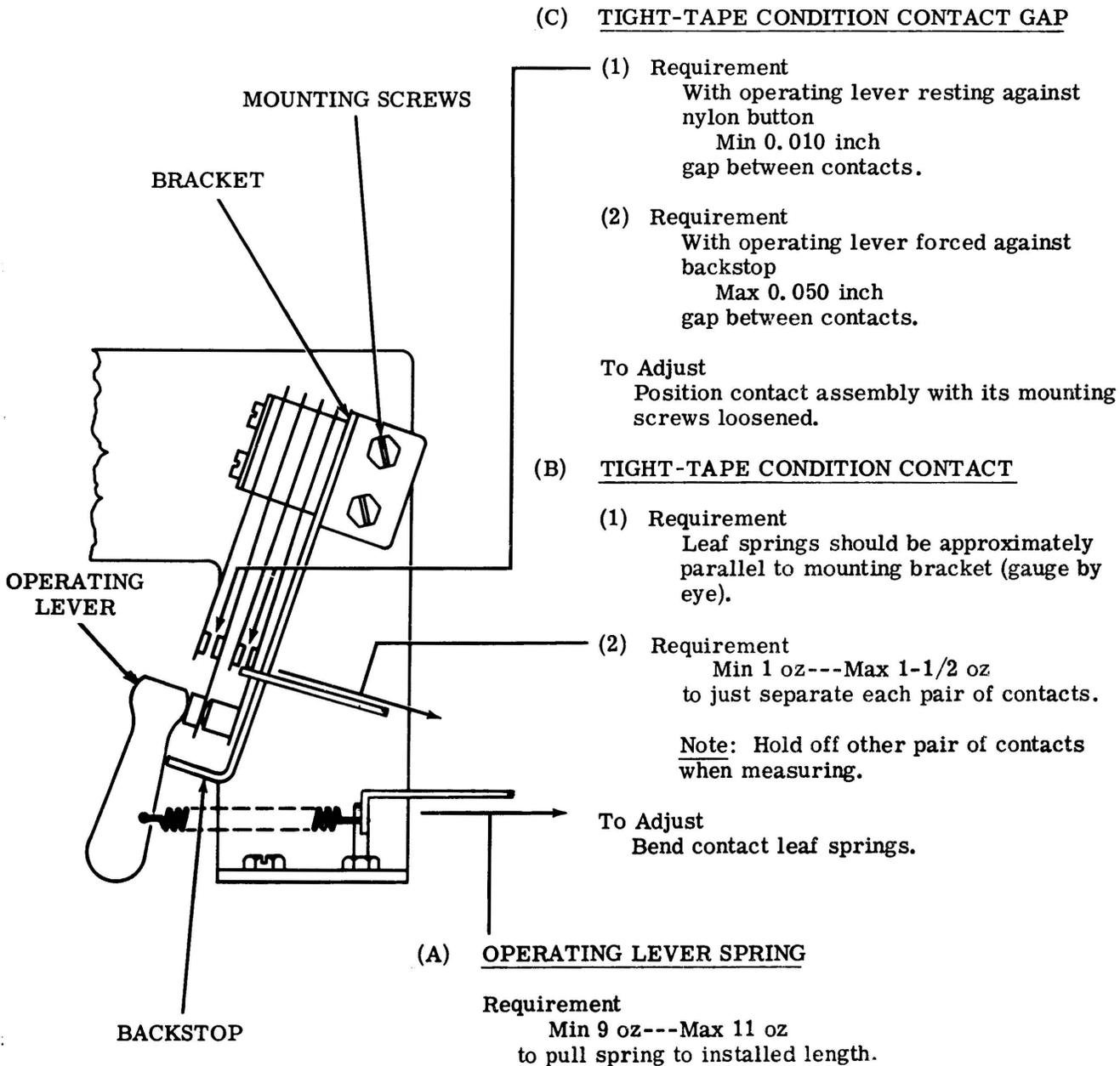
Note: Make certain that the two portions of the shift gears on the cross shaft assembly are mounted with no clearance between them. If there is clearance, loosen dual gear mounting screw and eliminate clearance before making above adjustment.

3.03 Tape Drive Mechanism (continued)



3.04 Tape Control Mechanism

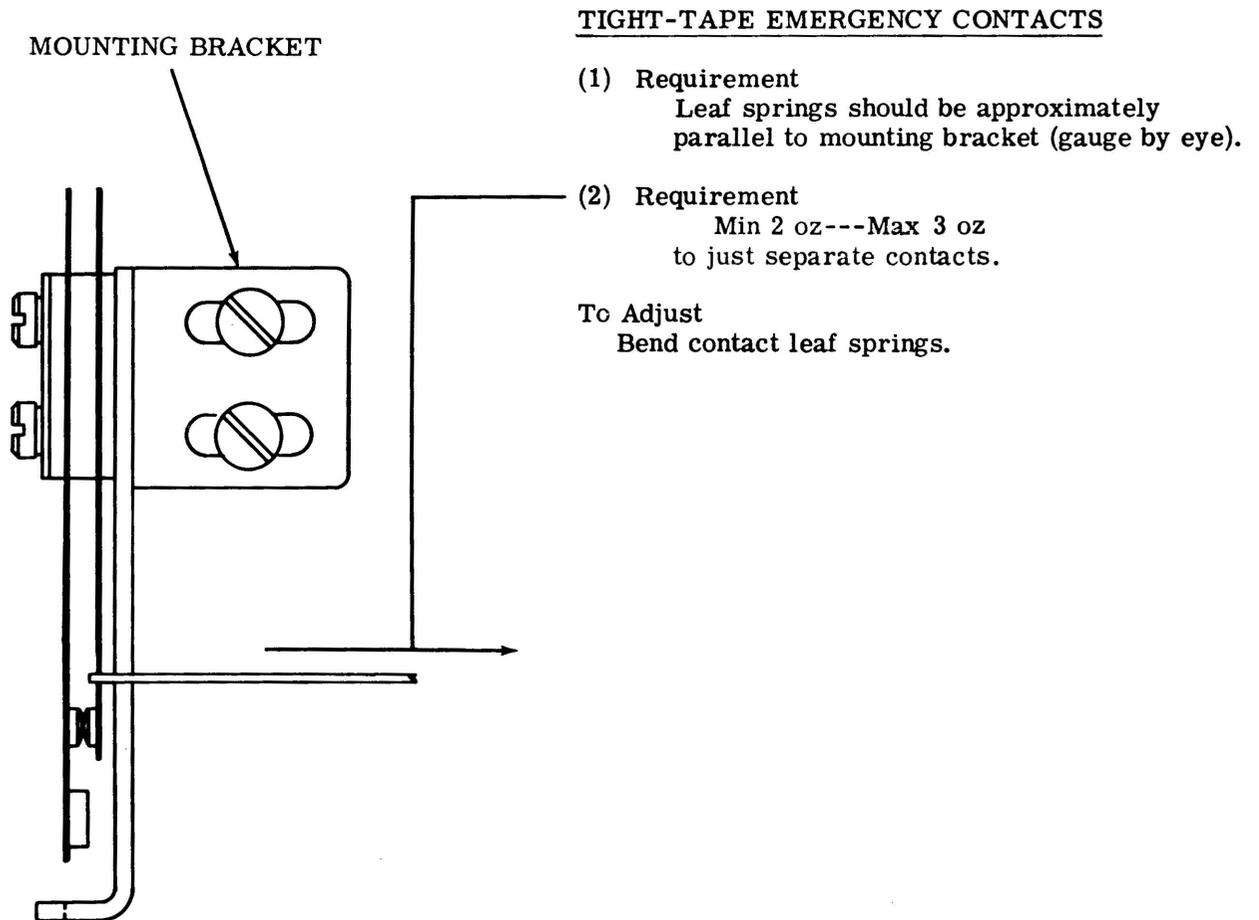
Note: Adjustments on this page pertain only to high to low speed units, ie, those capable of receiving data at 1000 wpm and transmitting at standard line speeds of 60, 75, or 100 wpm



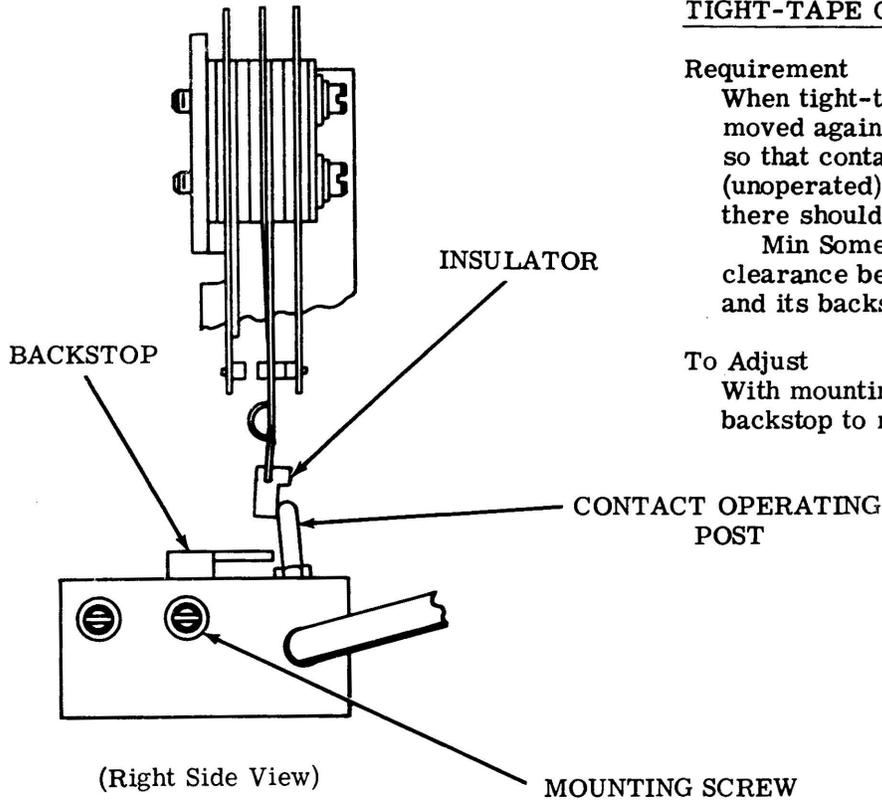
(View From Rear of Unit)

3.05 Tape Control Mechanism (continued)

Note: Adjustments on this page pertain only to high to low speed units, ie, those capable of receiving data at 1000 wpm and transmitting at standard line speeds of 60, 75, or 100 wpm



3.06 Tape Control Mechanism (continued)



TIGHT-TAPE CONTACT BACKSTOP

Requirement

When tight-tape contact operating post is moved against insulator on operating swinger so that contacts transfer from left (unoperated) to right (operated) position, there should be

Min Some---Max 0.010 inch clearance between contact operating post and its backstop.

To Adjust

With mounting screws loosened, position backstop to meet requirement.

TAUT-TAPE CONTROL

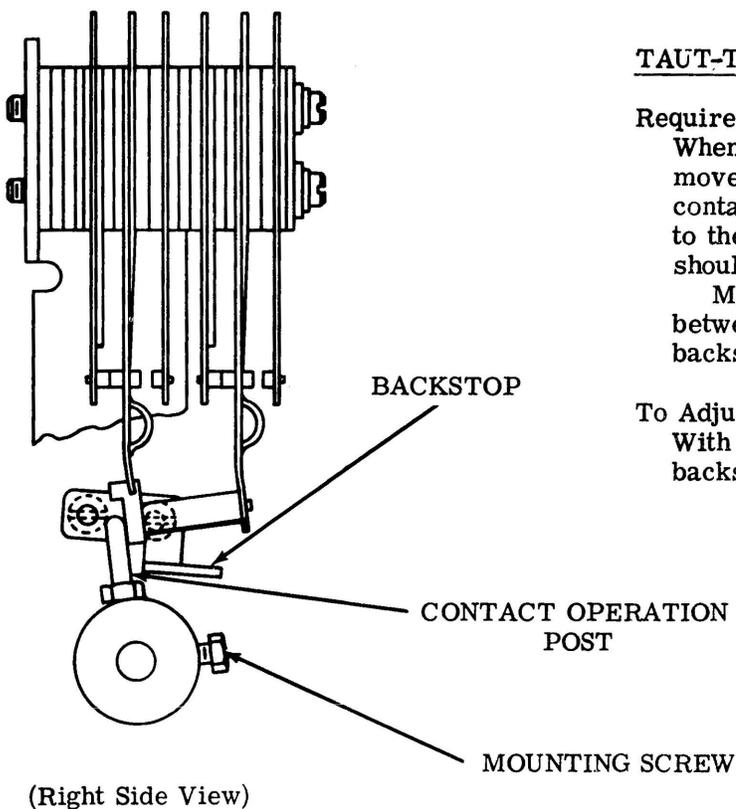
Requirement

When taut-tape contact operating post is moved against insulator on swinger so that contacts transfer from their right (operated) to the left (unoperated) position, clearance should be

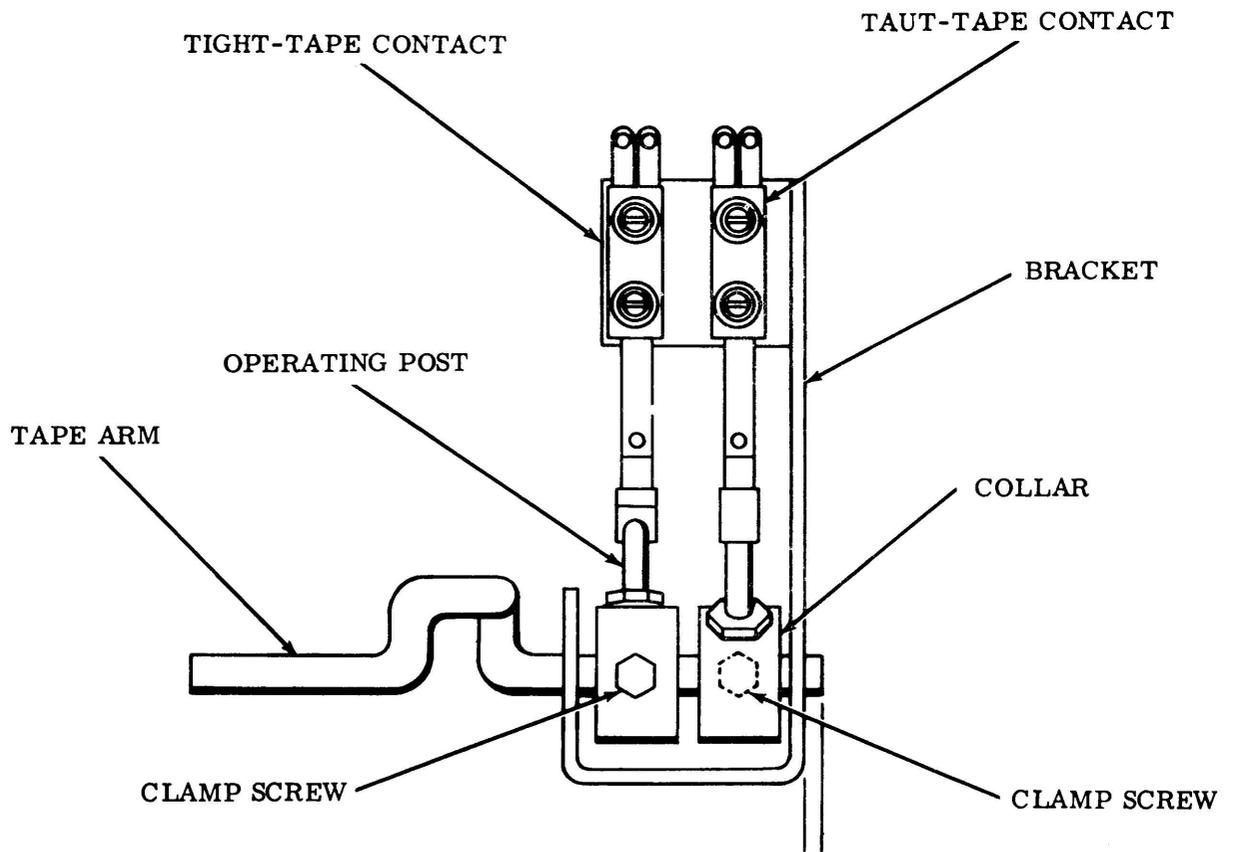
Min Some---Max 0.010 inch between contact operating post and its backstop.

To Adjust

With mounting screws loosened, position backstop to meet requirement.



## 3.07 Tape Control Mechanism (continued)

TAPE ARM**Requirement**

Tape arm should extend beyond the long formed section of the bracket by approximately 1/16 inch. Tape follower end of tape arm should be in line with center of bearing holes in bracket.

**To Adjust**

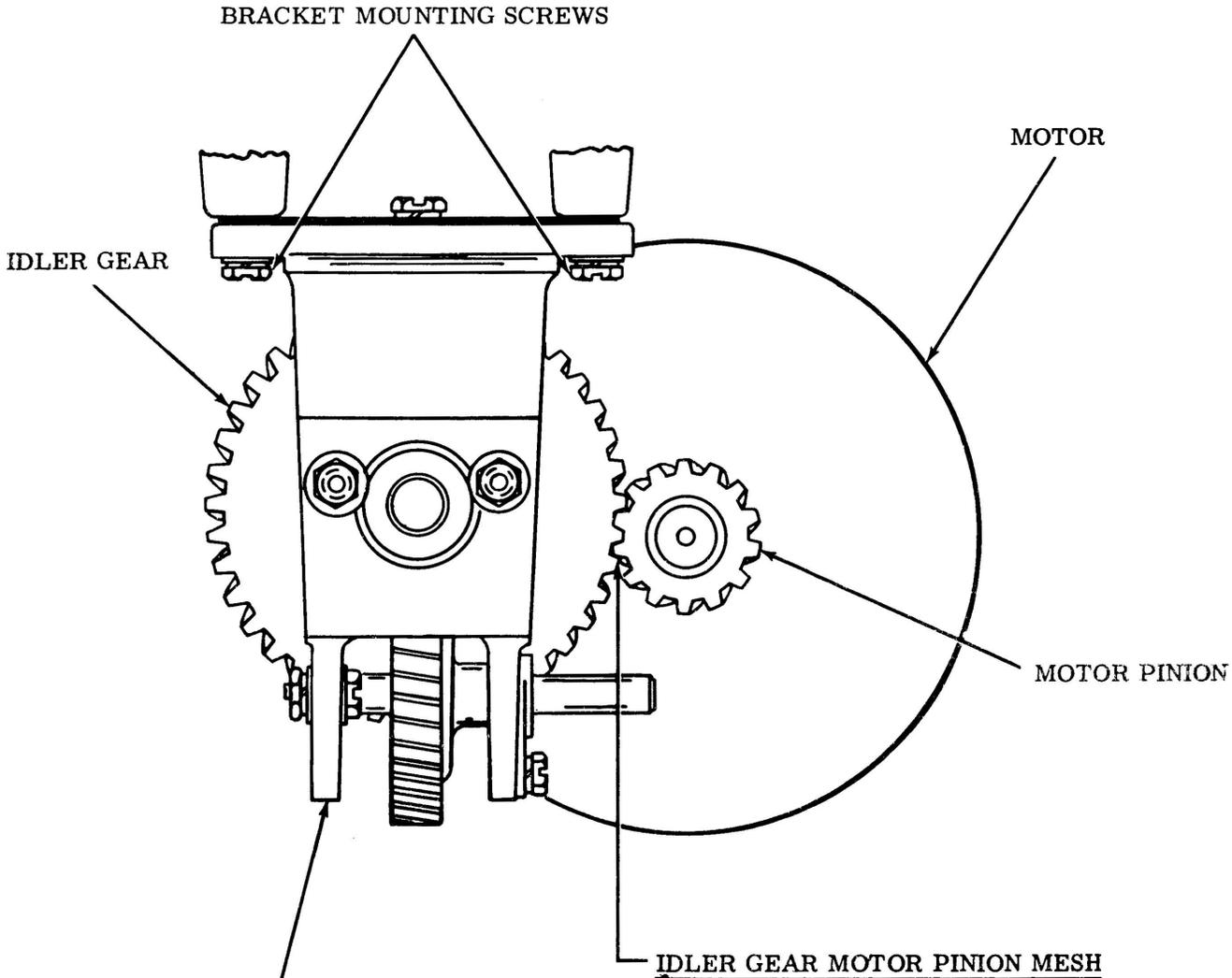
With contact operating post collar clamp screw loosened, hold taut-tape contact operating post against its backstop as far as it will go toward the long formed end of the bracket. Position tape arm to meet requirement. Tighten contact operating post collar clamp screw.

4. INTERRELATED ADJUSTMENTS

STANDARD SPEED REPERFORATOR TRANSMITTER SET

4.01 Motor to Tape Winder

Note: The adjustments in this paragraph cover the relationship between the transmitter distributor and the typing or nontyping reperforator.



Requirement

Min Some---Max 0.003 inch  
between idler gear and motor pinion  
throughout one revolution of idler gear.

To Adjust

Position idler gear motor pinion mesh with  
mounting screws loosened.

4.02 Transmitter Distributor to Reperforator

VERITCAL ALIGNMENT OF PIVOTED SENSING HEAD AND PUNCH

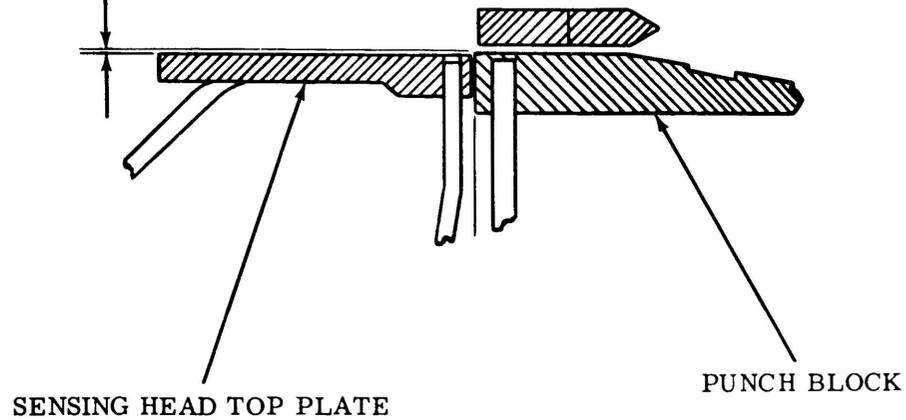
**Requirement**

With pivoted sensing head against punch block, top plate of sensing head should be

Min Flush---Max 0.010 inch  
below bottom surface of tape slot in punch block.

**To Adjust**

Position height adjusting screw, on sensing end of unit, with locknut and mounting screw loosened.



4.03 Transmitter Distributor to Reperforator (continued)

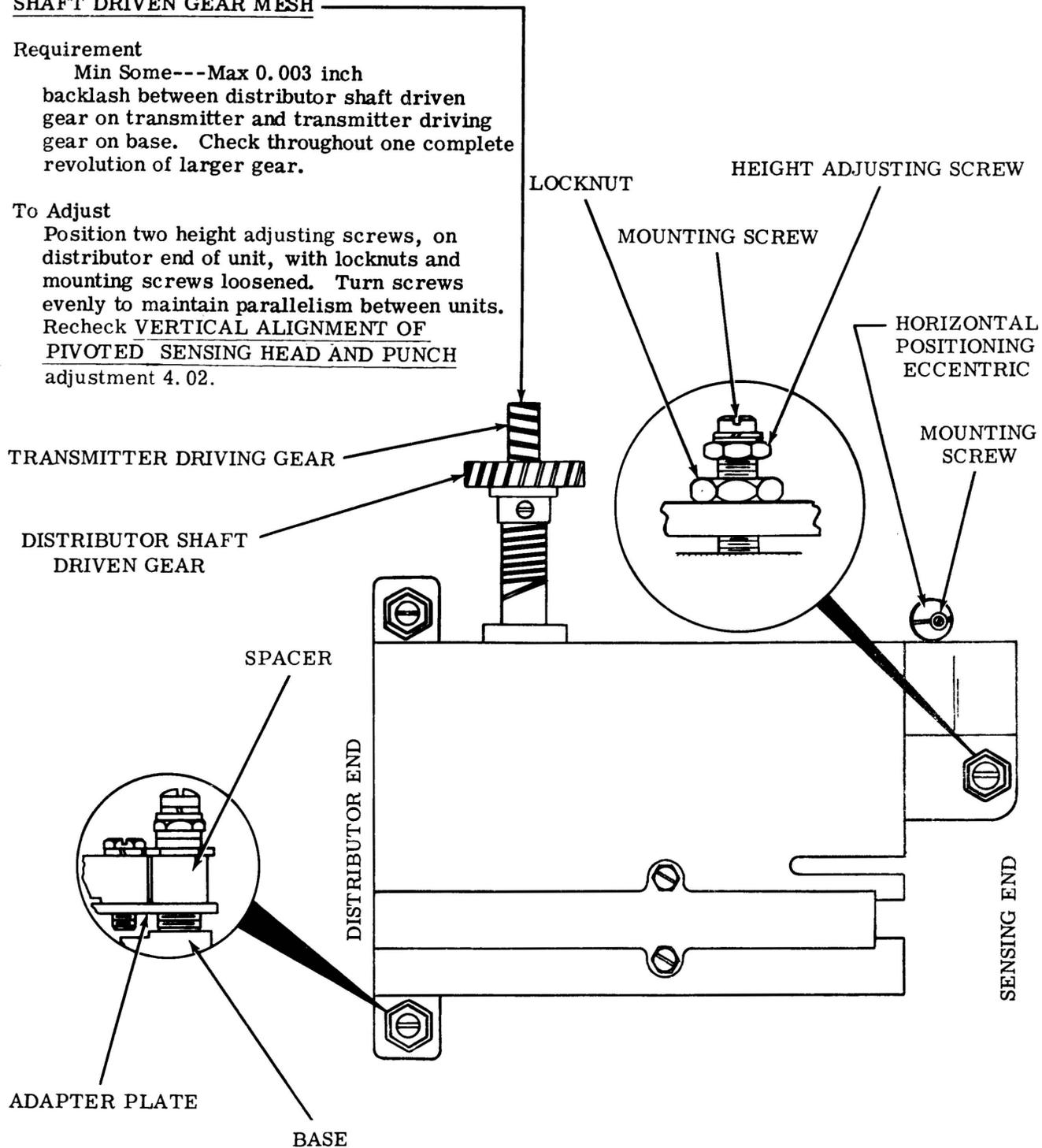
TRANSMITTER DRIVING AND DISTRIBUTOR  
SHAFT DRIVEN GEAR MESH

Requirement

Min Some---Max 0.003 inch  
backlash between distributor shaft driven  
gear on transmitter and transmitter driving  
gear on base. Check throughout one complete  
revolution of larger gear.

To Adjust

Position two height adjusting screws, on  
distributor end of unit, with locknuts and  
mounting screws loosened. Turn screws  
evenly to maintain parallelism between units.  
Recheck VERTICAL ALIGNMENT OF  
PIVOTED SENSING HEAD AND PUNCH  
adjustment 4.02.



## 4.04 Transmitter Distributor to Reperforator (continued)

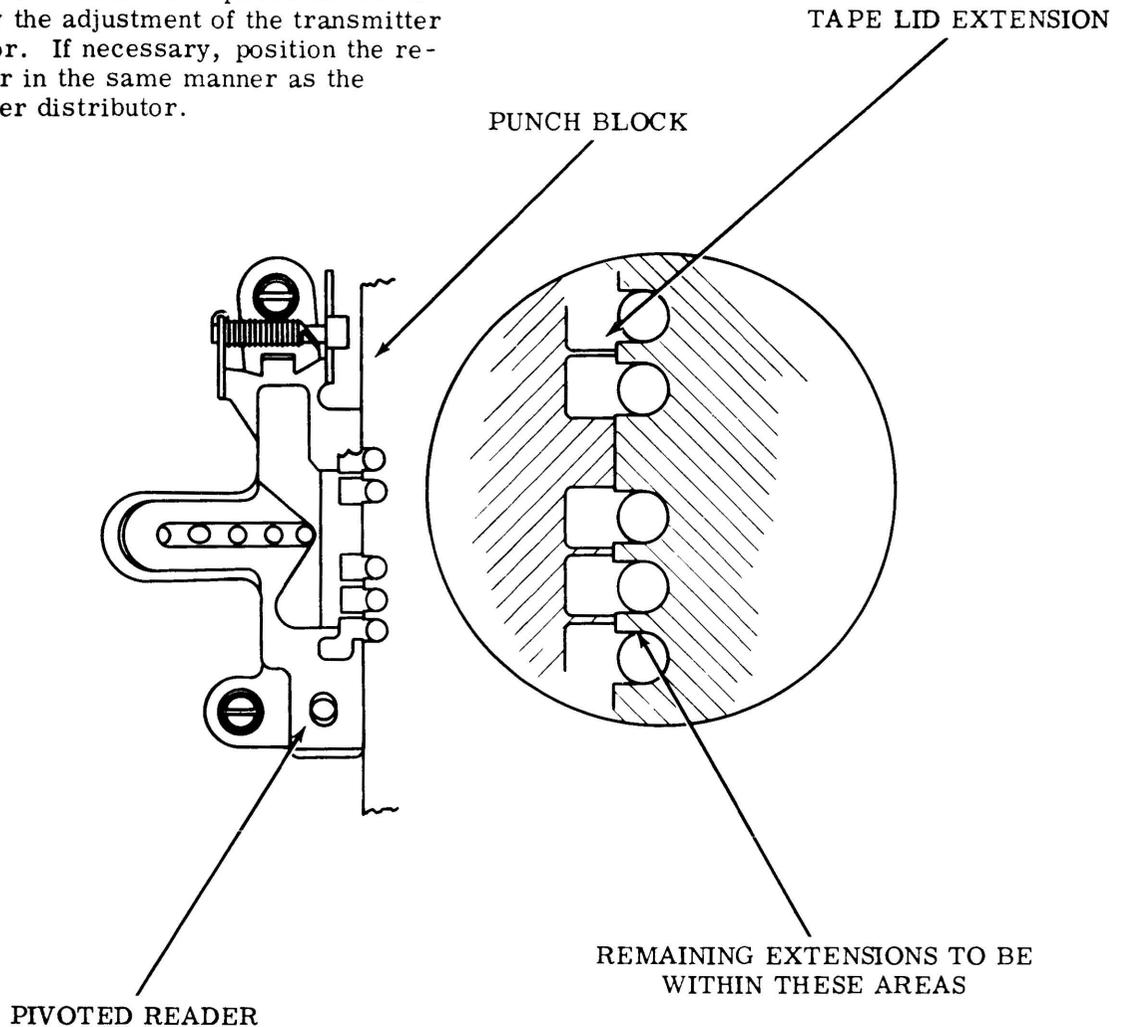
HORIZONTAL ALIGNMENT OF PIVOTED SENSING HEAD AND PUNCH**Requirement**

When one tape lid extension is centered on respective area between punch pin slots, remaining extensions should be fully within their respective areas.

**To Adjust**

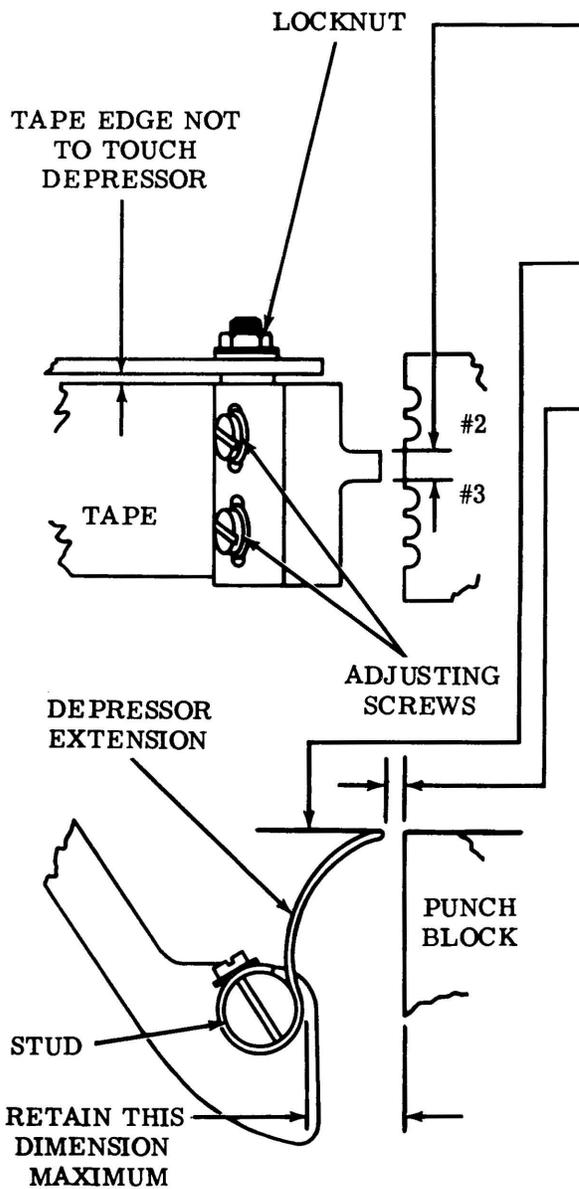
Loosen transmitter distributor and horizontal positioning eccentric mounting screws. Shift unit to meet requirement. Tighten unit mounting screws. Position eccentric against rear plate of transmitter distributor and tighten its mounting screw.

**Note:** It may be necessary to position the reperforator unit if the requirement cannot be met by the adjustment of the transmitter distributor. If necessary, position the reperforator in the same manner as the transmitter distributor.



4.05 Transmitter Distributor to Reperforator (continued)

TAPE DEPRESSOR



(1) Requirement  
Tip of depressor extension should be centered between #2 and #3 punch pin slots in punch block.

To Adjust  
Position depressor extension with its two adjusting screws loosened.

(2) Requirement  
Depressor extension should be positioned  
Min Flush---Max 0.060 inch  
below top surface of punch block.

(3) Requirement  
Clearance between tape depressor extension and punch block  
Min 0.040 inch---Max 0.080 inch

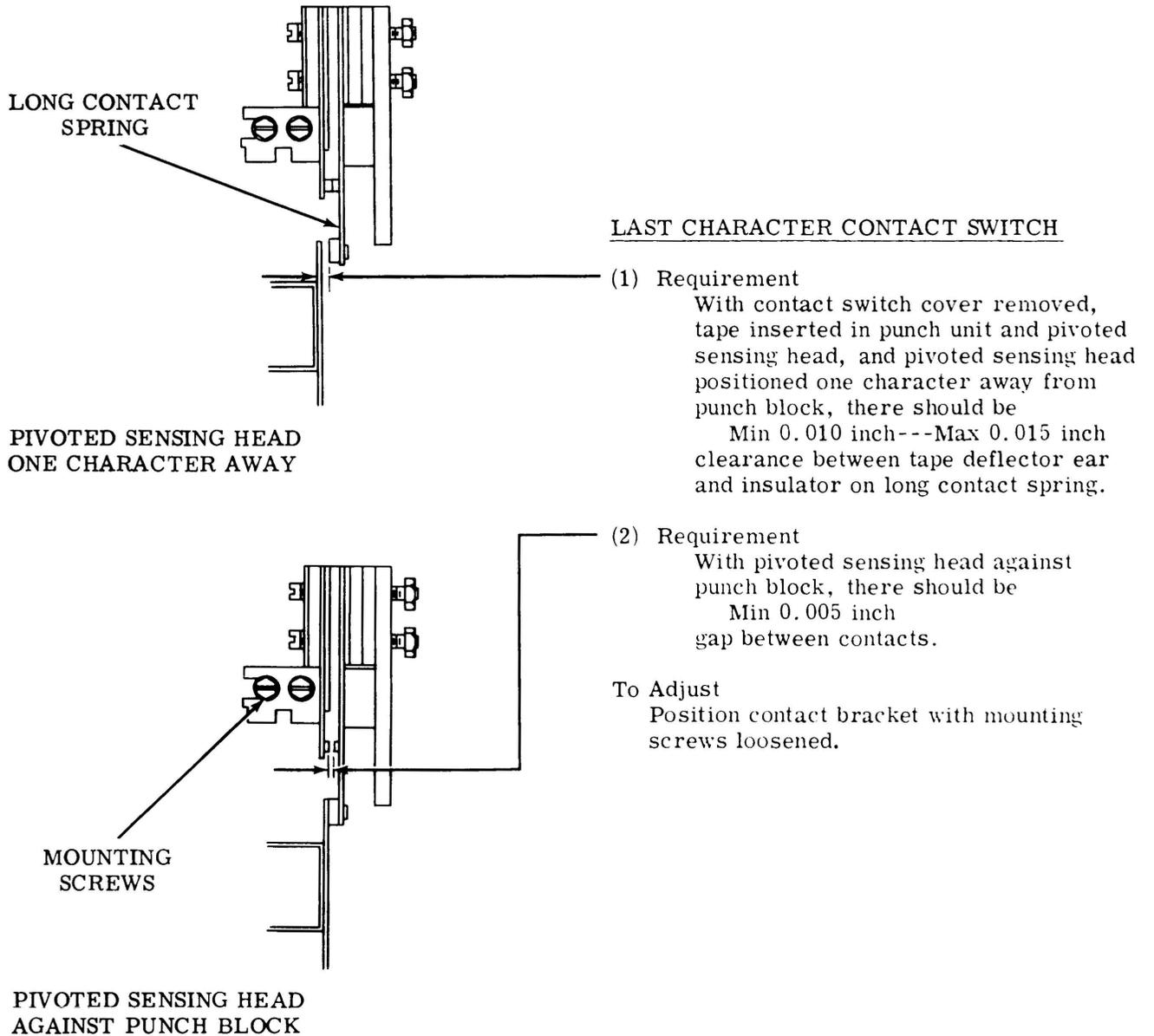
To Adjust  
Position by moving tape depressor extension angularly and/or horizontally with locknut on depressor loosened.

Note: If requirement (2) is still not met, rotate bar at top of transmitter distributor (to which depressor bracket is secured) with four mounting screws of bar assembly loosened. Make sure clearance between punch block and depressor extension (at mounting stud) is maximum possible while still meeting requirement.

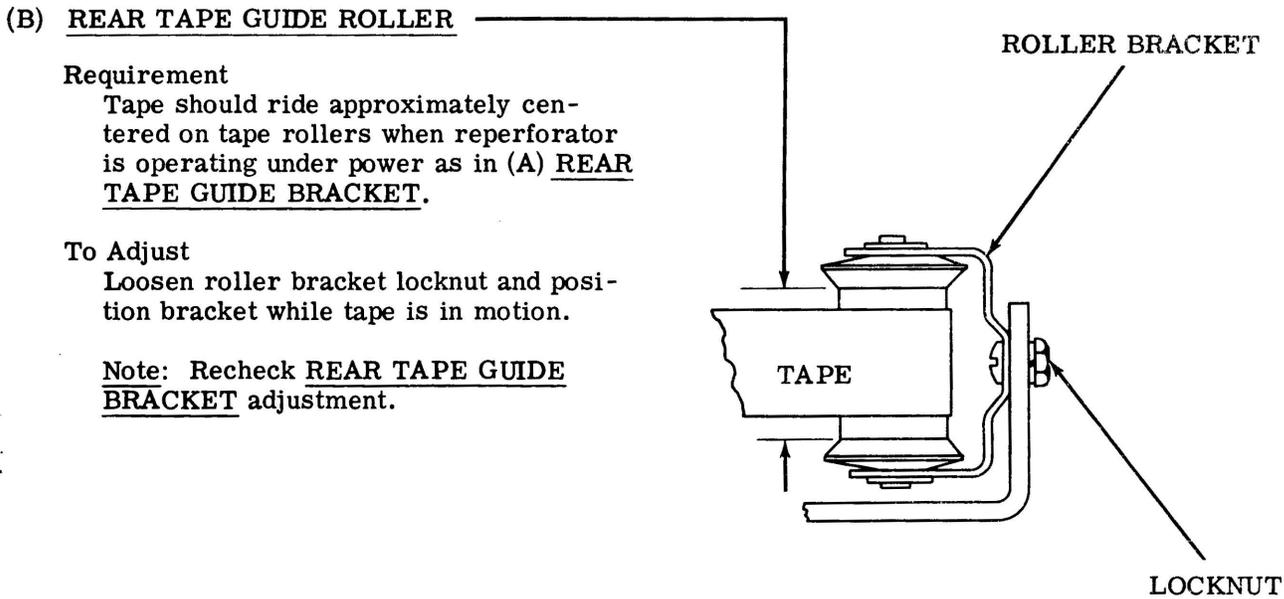
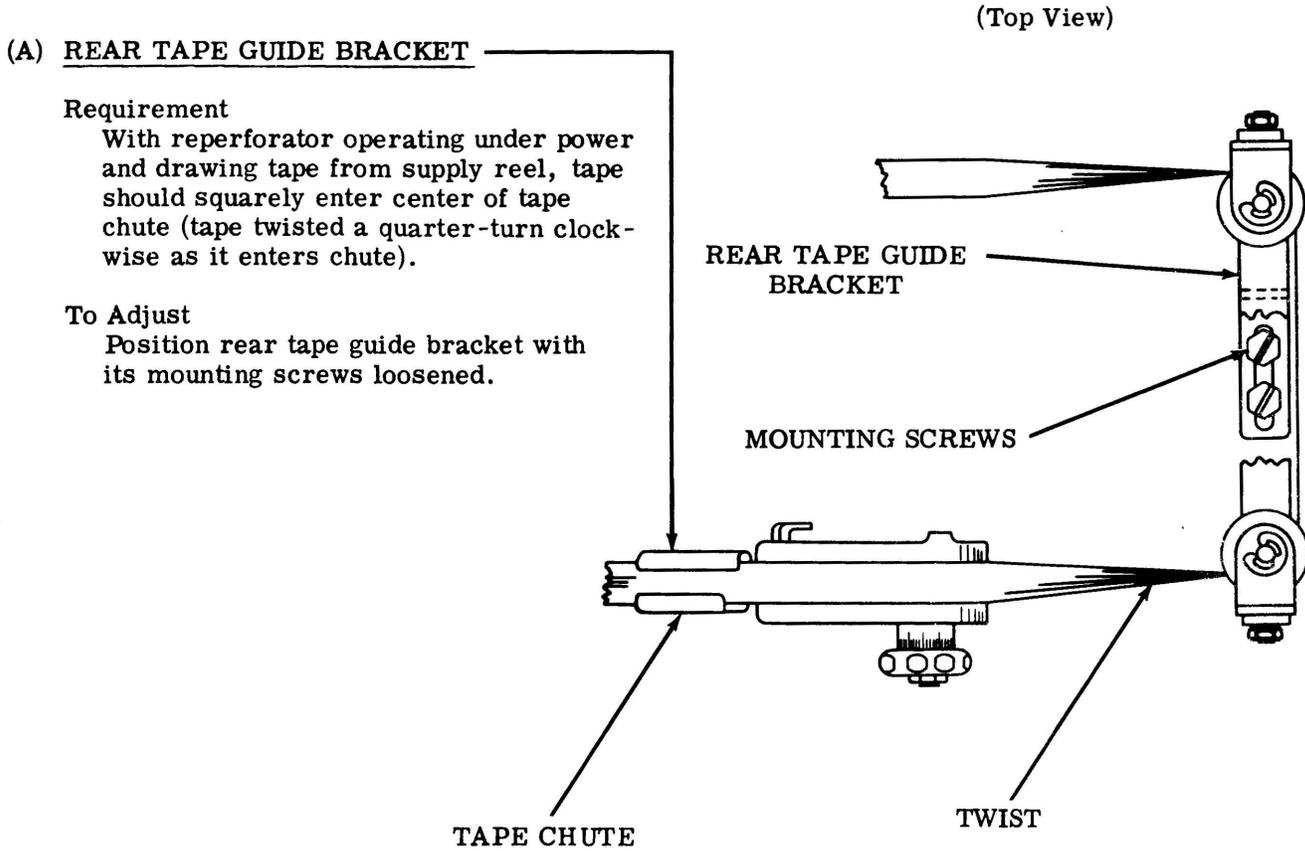
(4) Requirement  
With tape following normal path, and pivoted head approximately 15 characters from punch block, tape edge should not touch depressor.

To Adjust  
Refine TAPE DEPRESSOR adjustment as prescribed in Section 573-127-700TC.

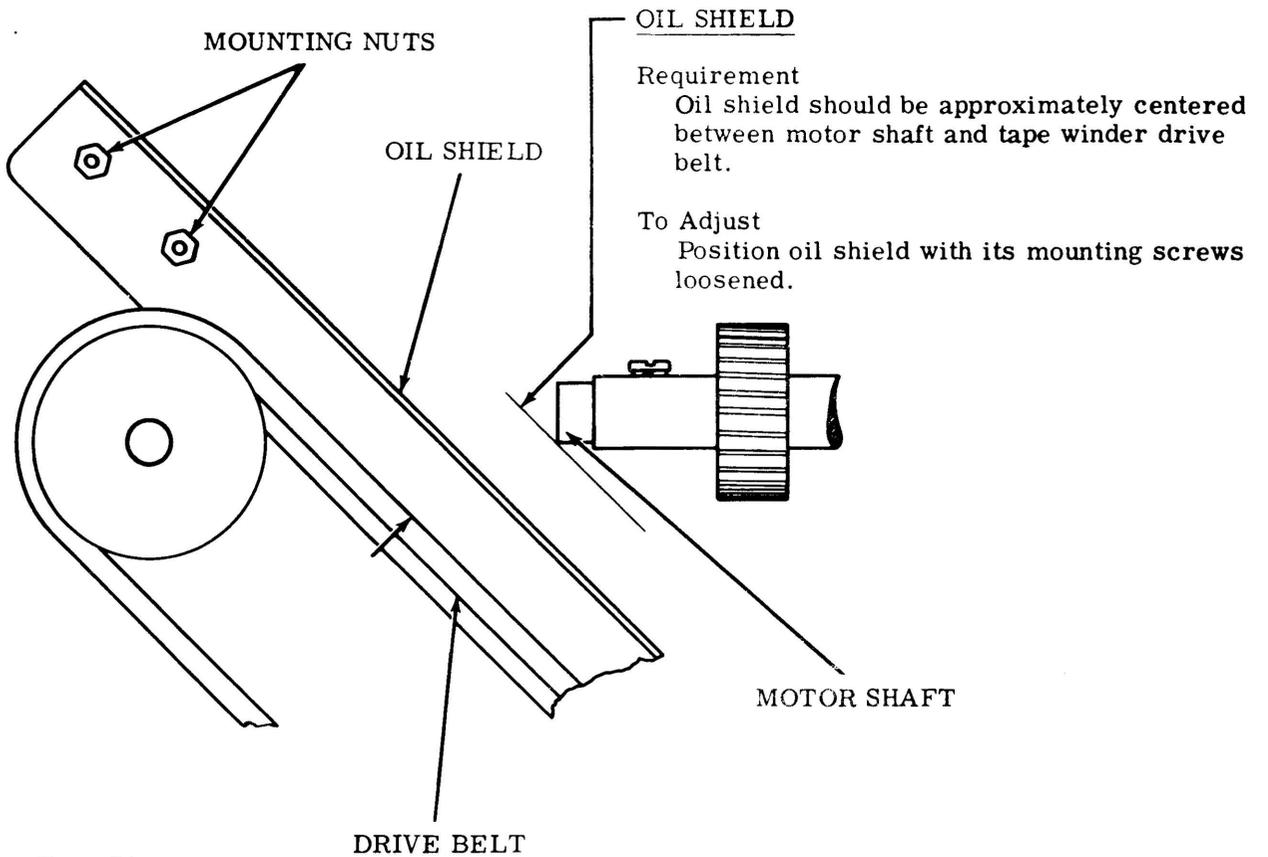
4.06 Transmitter Distributor to Reperforator (continued)



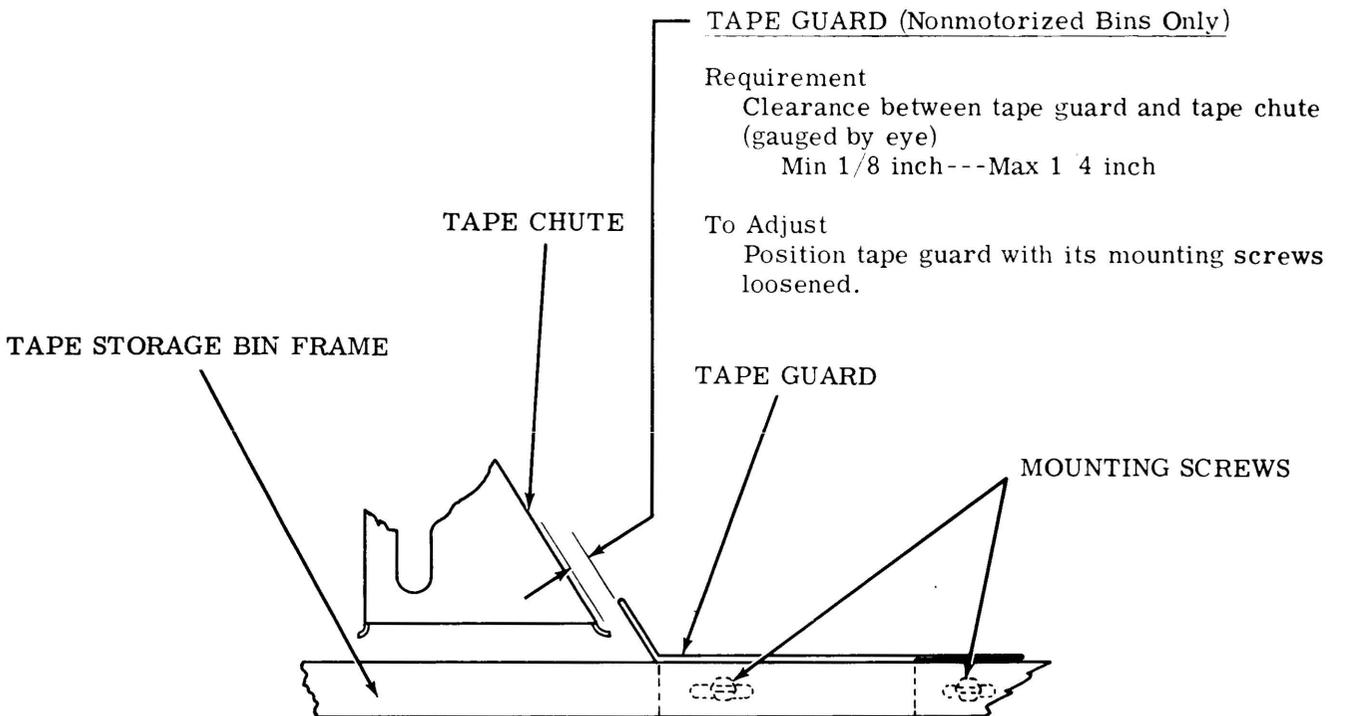
4.07 Tape Control Mechanism



4.08 Tape Drive Mechanism



4.09 Tape Bin



4.10 Transmitter Distributor to Reperforator (continued)

Note: All preceding adjustments between transmitter distributor and typing or nontyping reperforator should be completed and requirements met before proceeding with following final adjustments.

CODE HOLE SENSING PIN ALIGNMENT

To Check

With a loop of letters tape (perforated under power by the reperforator) between reperforator and transmitter distributor, and pivoted sensing head resting against its backstop, manually trip sensing shaft clutch and rotate shaft until sensing pins are in their uppermost position.

(1) Requirement

The sensing pins should be approximately centered laterally on code holes.

To Adjust

Refine punch FEED HOLE LATERAL ALIGNMENT as prescribed in Section 573-118-700TC.

(2) Requirement

Sensing pins should be positioned toward rear edge of code hole.

Min 0.008 inch clearance between pin and rear edge. Check five places.

To Adjust

Check tape quality for compliance with TP156011 tape gauge and, if necessary, refine DETENT adjustment as prescribed in Section 573-118-700TC.

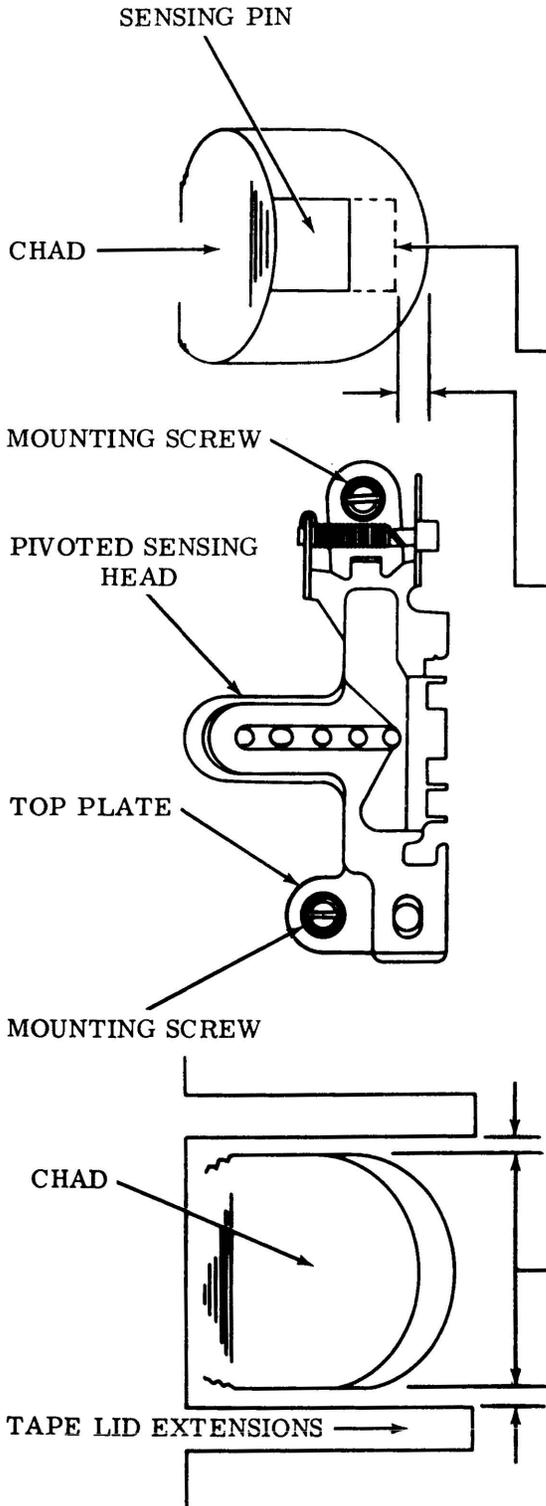
Note: If requirement still is not met, position pivoted sensing head top plate in required direction with its mounting screws loosened. Recheck LAST CHARACTER CONTACT SWITCH (4.06) adjustment.

(3) Requirement

As code holes are opened by sensing pins, there should be some clearance between sides of chad and tape lid extensions. Check ten places.

To Adjust

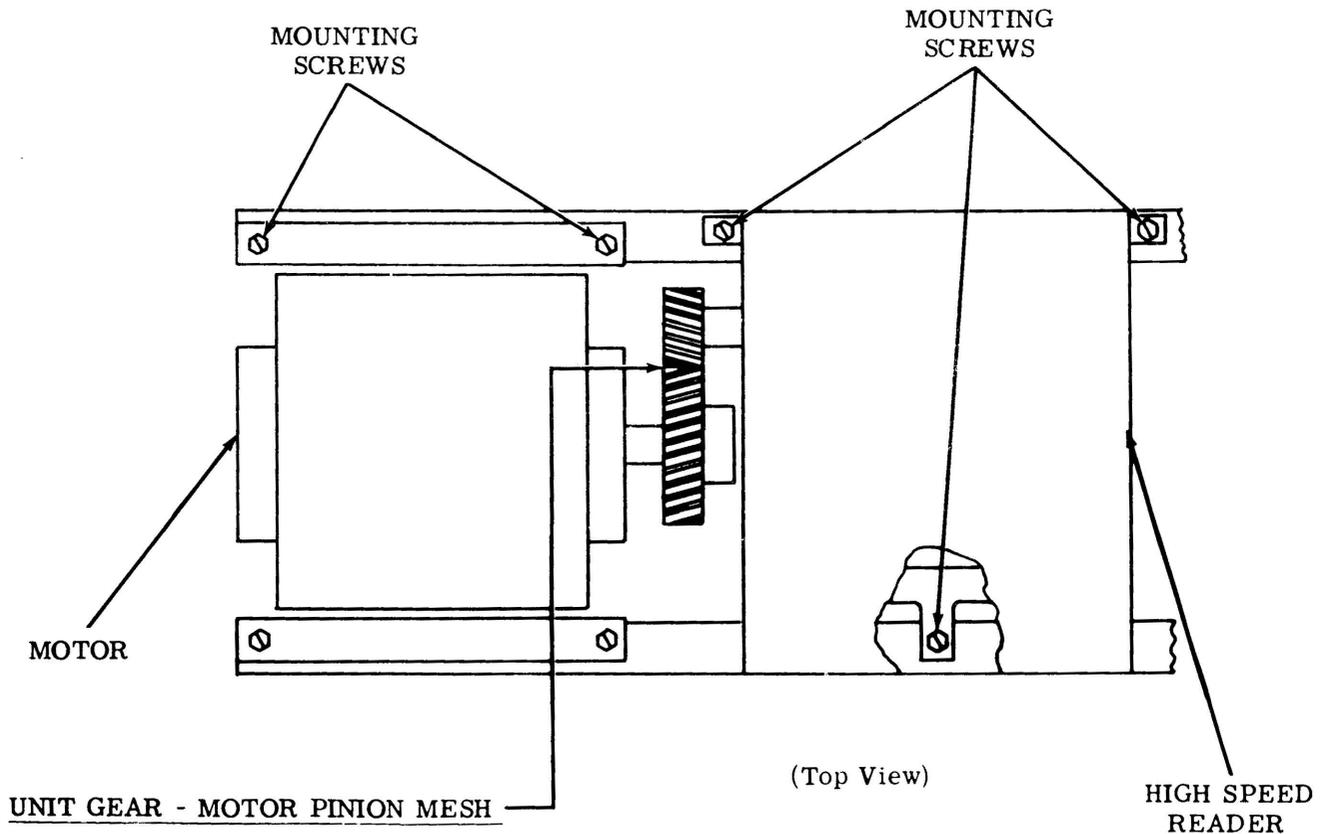
Position pivoted sensing head top plate laterally with its mounting screws loosened. Recheck requirement (2).



LOW TO HIGH SPEED REPERFORATOR TRANSMITTER SET

4.11 Motor to Transmitter Distributor

IDLER GEAR MOTOR PINION MESH - SEE 4.01



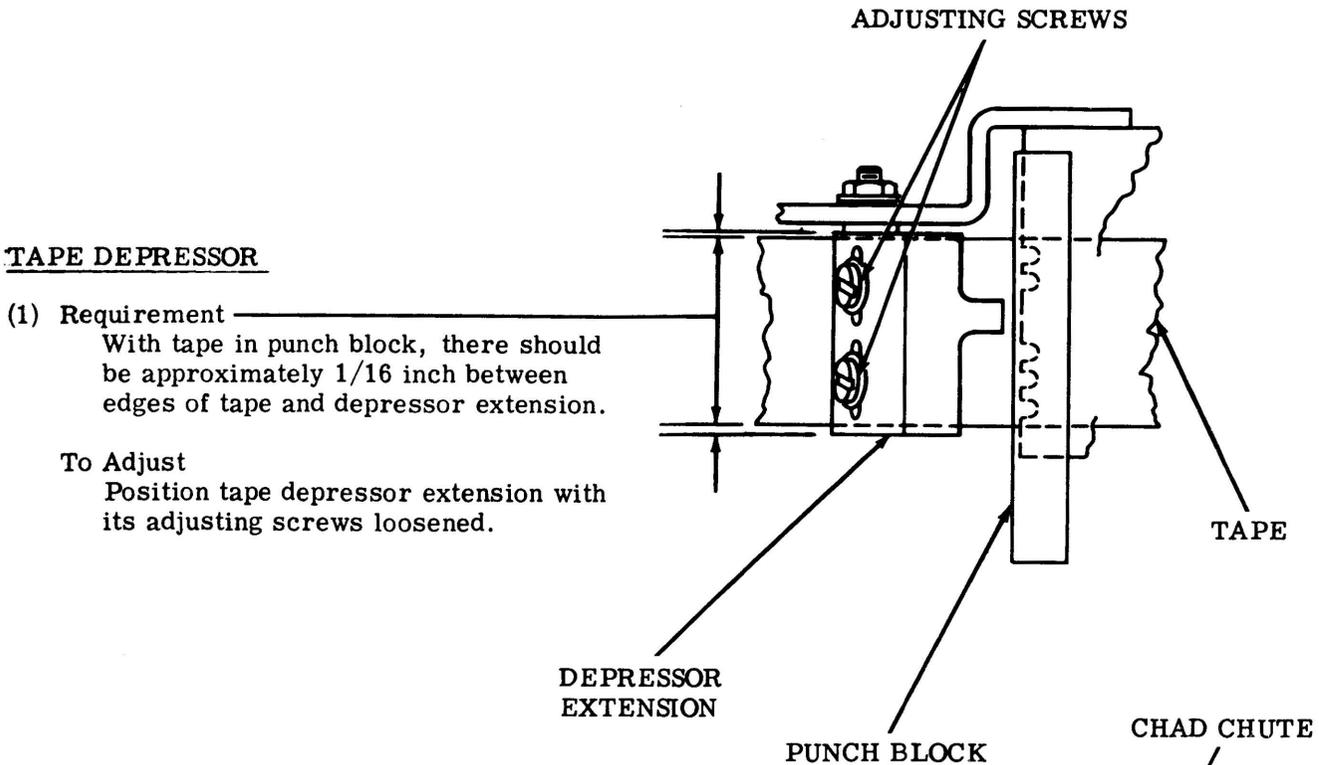
**Requirement**

Min Some---Max 0.003 inch  
backlash between unit gear and motor pinion  
throughout one revolution of unit gear.

**To Adjust**

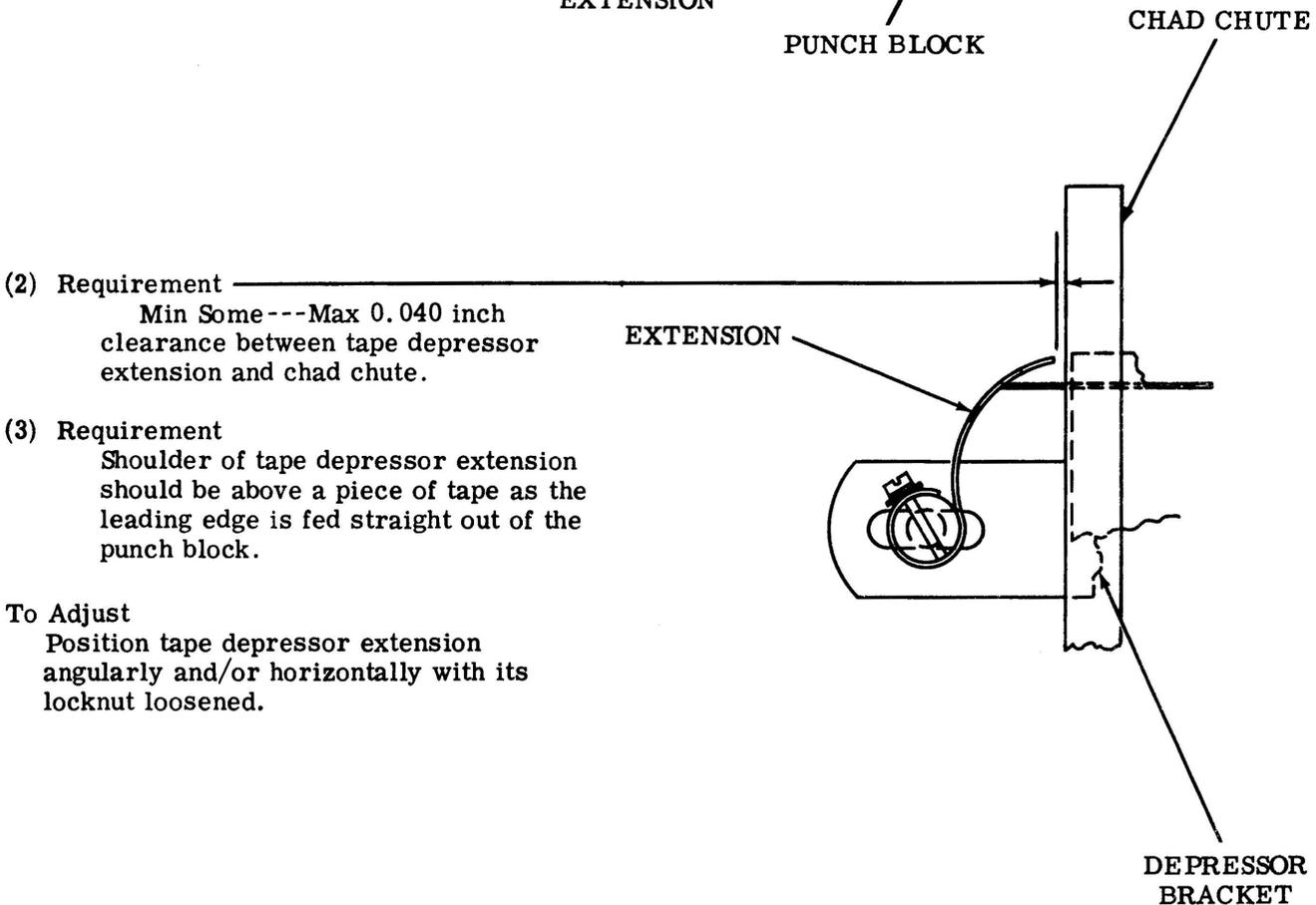
Position high speed tape reader and its  
motor with mounting screws loosened.

4.12 Transmitter Distributor to Reperforator



(1) Requirement  
 With tape in punch block, there should be approximately 1/16 inch between edges of tape and depressor extension.

To Adjust  
 Position tape depressor extension with its adjusting screws loosened.



(2) Requirement  
 Min Some --- Max 0.040 inch clearance between tape depressor extension and chad chute.

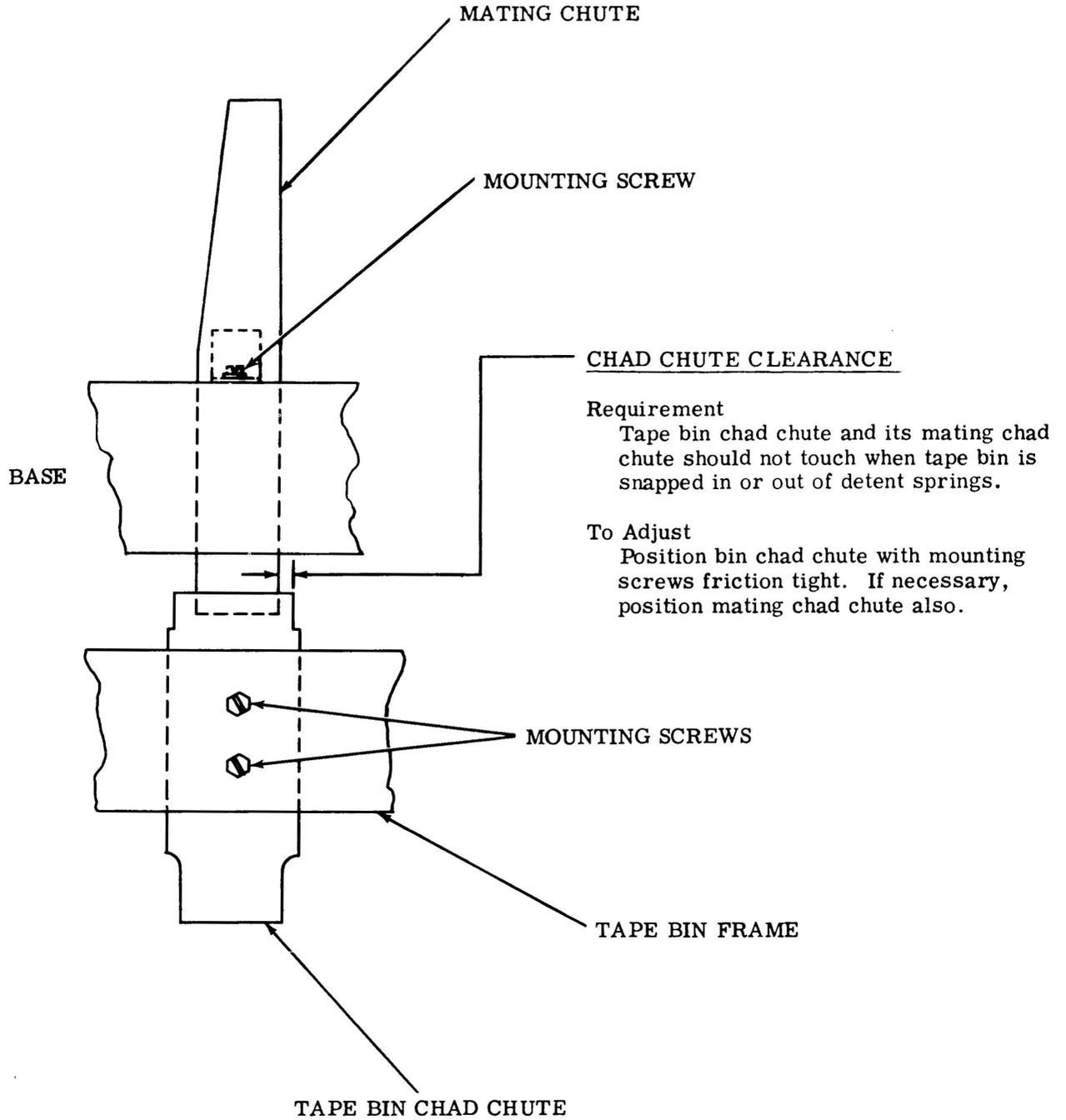
(3) Requirement  
 Shoulder of tape depressor extension should be above a piece of tape as the leading edge is fed straight out of the punch block.

To Adjust  
 Position tape depressor extension angularly and/or horizontally with its locknut loosened.

4.13 Tape Bin

REAR TAPE GUIDE BRACKET - SEE 4.07

REAR TAPE GUIDE ROLLER - SEE 4.07



HIGH TO LOW SPEED REPERFORATOR TRANSMITTER SET

4.14 Sprocket to Motor

IDLER GEAR MOTOR PINION MESH - SEE 4.01

MOTOR SPROCKET CLEARANCE

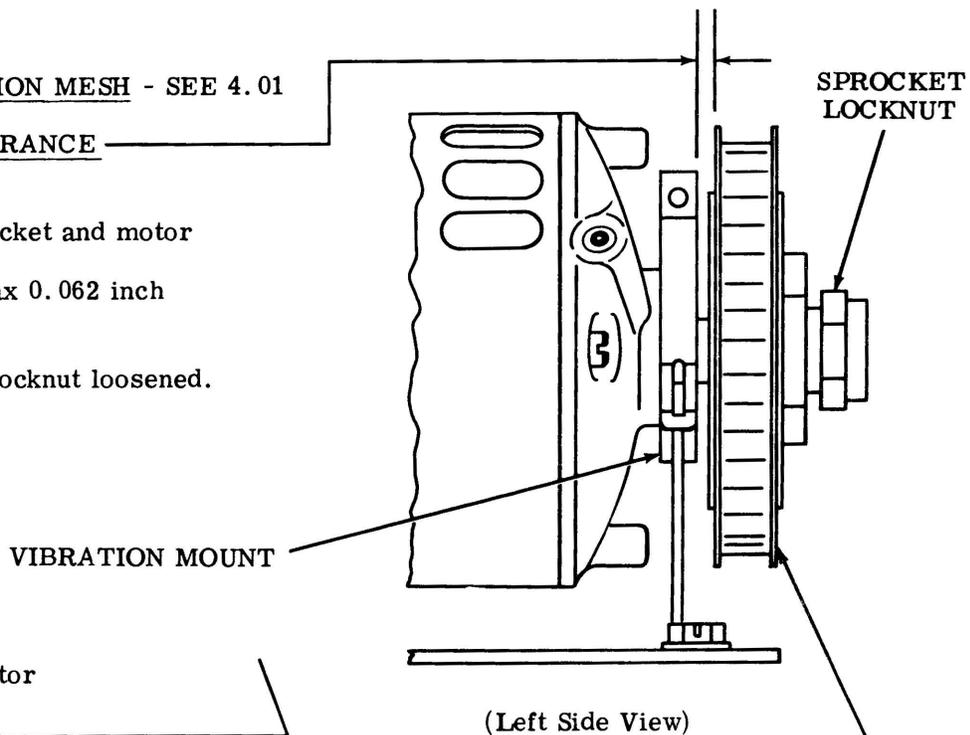
Requirement

Clearance between sprocket and motor vibration mount

Min 0.031 inch---Max 0.062 inch

To Adjust

Position sprocket with locknut loosened.



4.15 Motor to Reperforator

TIMING BELT

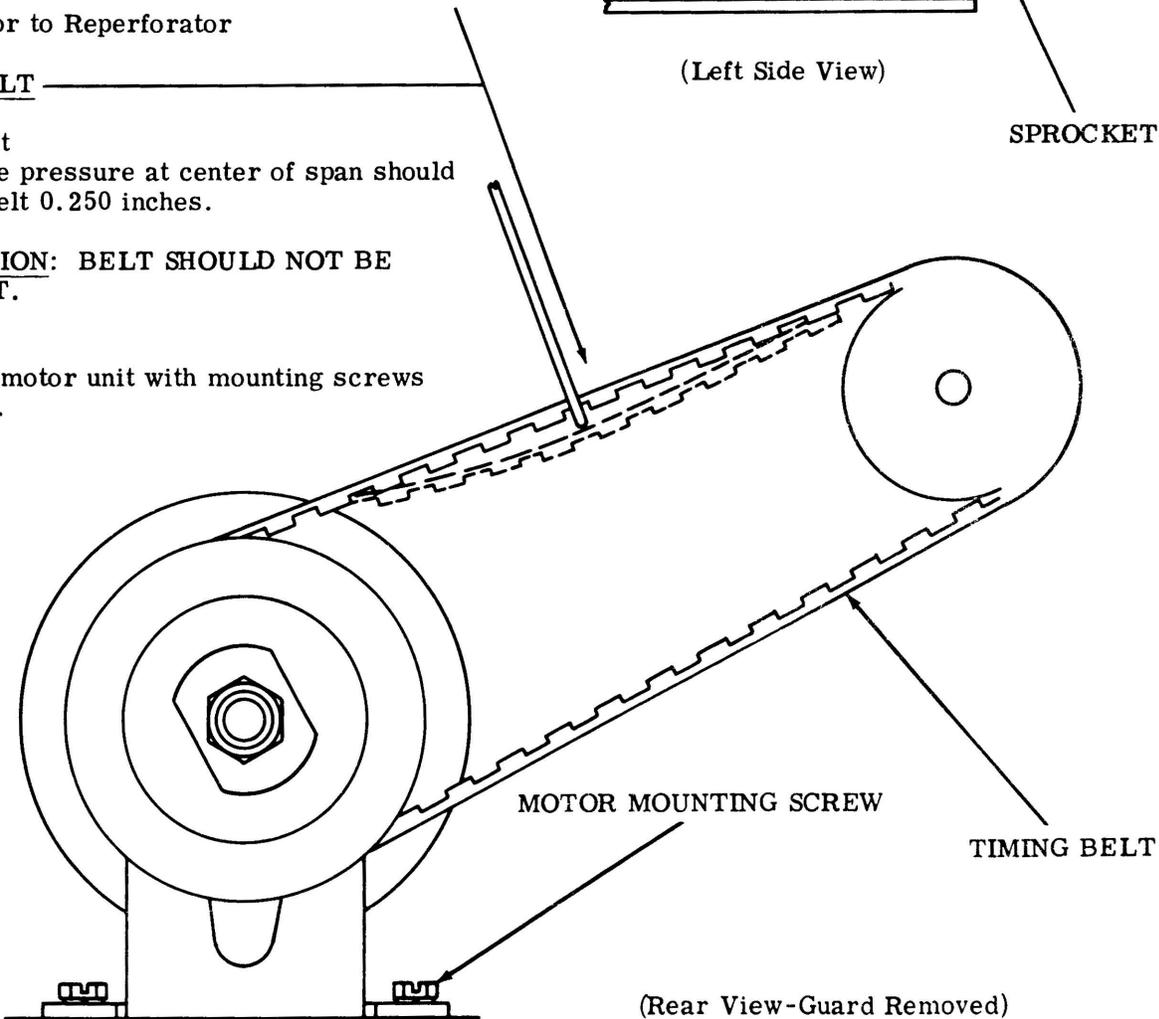
Requirement

A 5 ounce pressure at center of span should deflect belt 0.250 inches.

CAUTION: BELT SHOULD NOT BE TIGHT.

To Adjust

Position motor unit with mounting screws loosened.



4.16 Sprocket to Reperforator

(A) SPROCKET CLEARANCE

Requirement

Clearance between threaded shoulder on drive shaft and sprocket  
Min Some---Max 0.031 inches

To Adjust

Position sprocket with sprocket lock-nut loosened.

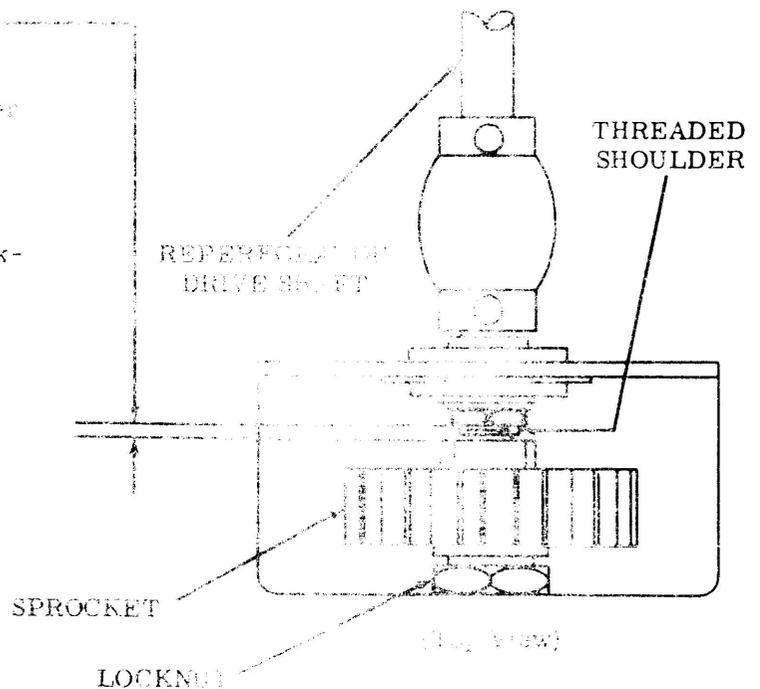
(B) DRIVE SHAFT ALIGNMENT

Requirement

Reperforator drive shaft should be in line with sprocket drive shaft on opposite side of rubber coupling.

To Adjust

Position bearing bracket with its three mounting screws loosened. (gauge by eye from top of unit).



4.17 Tape Control Mechanism

TIGHT-TAPE EMERGENCY CONTACT GAP

To Check

Thread length of perforated tape between transmitter distributor and reperforator. Place transmitter distributor in free wheeling position and manually draw tape through head until tight-tape arm begins to lift.

(1) Requirement

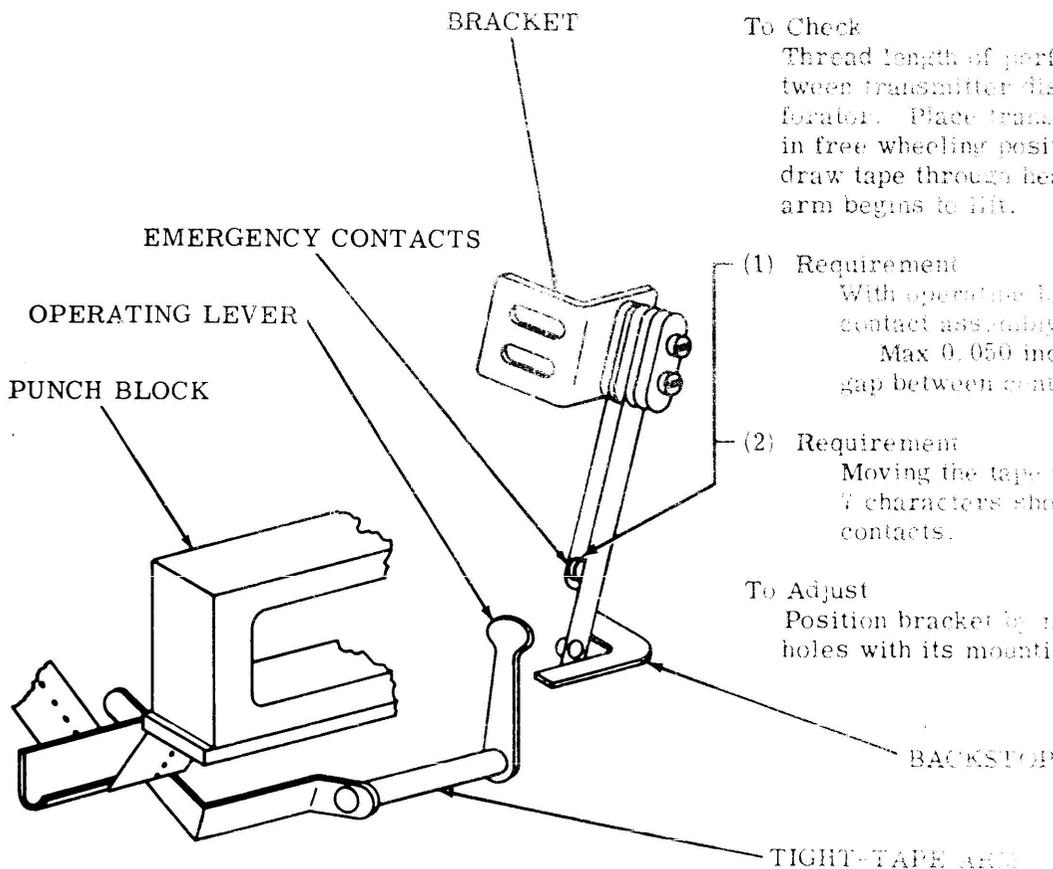
With operating lever forced against contact assembly backstop  
Max 0.050 inch gap between contacts.

(2) Requirement

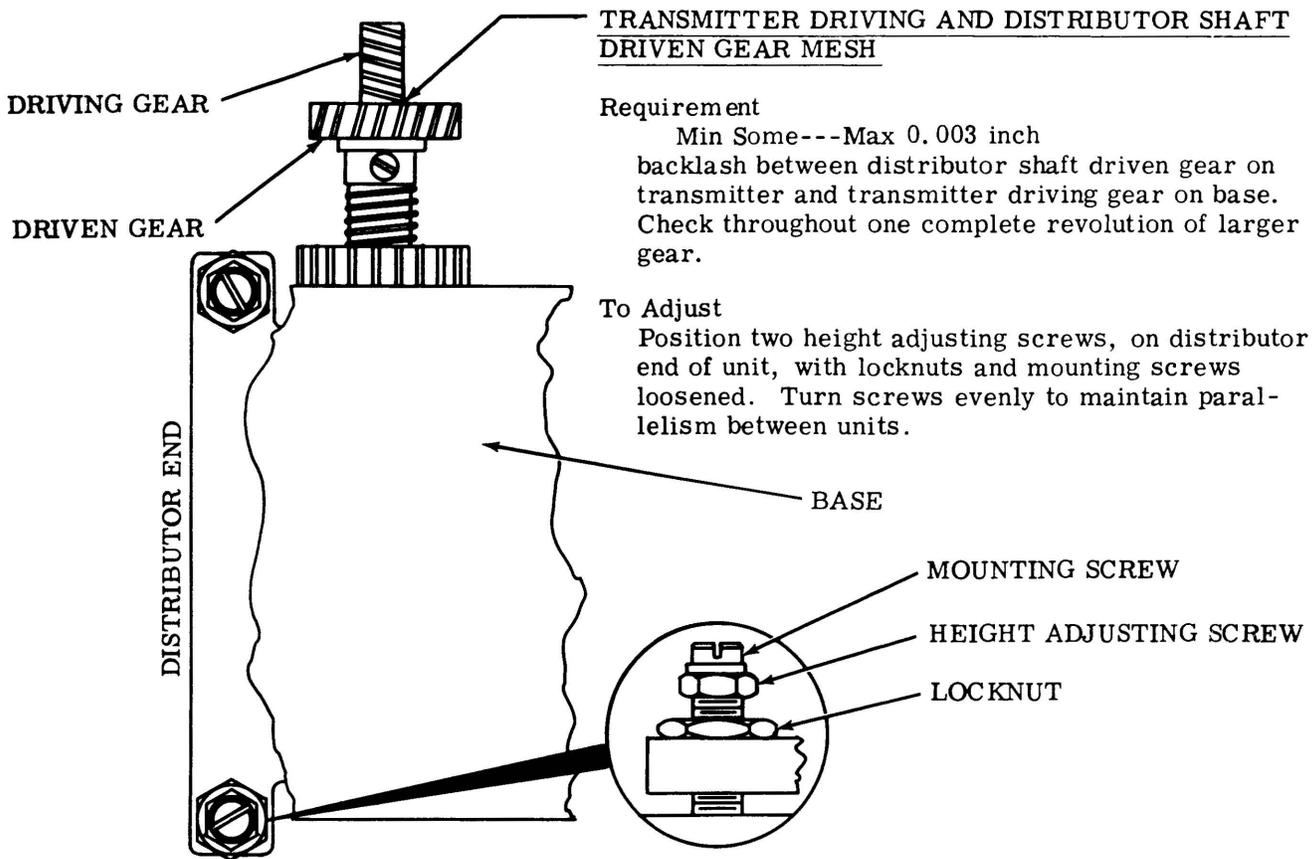
Moving the tape an additional 5 or 7 characters should just separate contacts.

To Adjust

Position bracket by moving it in slotted holes with its mounting screws loosened.



4.18 Tape Drive Mechanism



4.19 Tape Bin

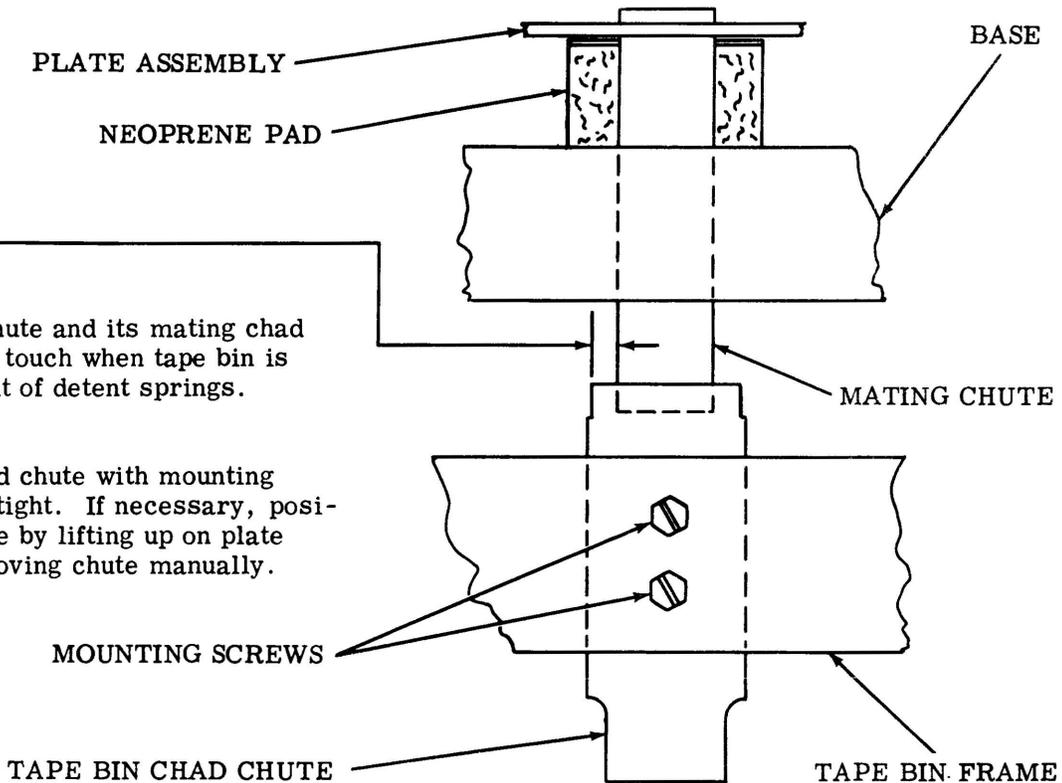
**CHAD CHUTE**

**Requirement**

Tape bin chad chute and its mating chad chute should not touch when tape bin is snapped in or out of detent springs.

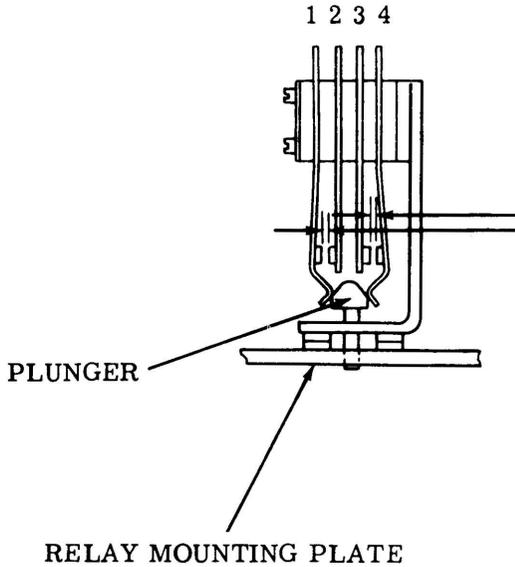
**To Adjust**

Position bin chad chute with mounting screws friction tight. If necessary, position mating chute by lifting up on plate assembly and moving chute manually.



4.20 Cabinet to Tape Handling Stand

CONTACT SPRINGS



LINE SHUNT CONTACTS

Requirement

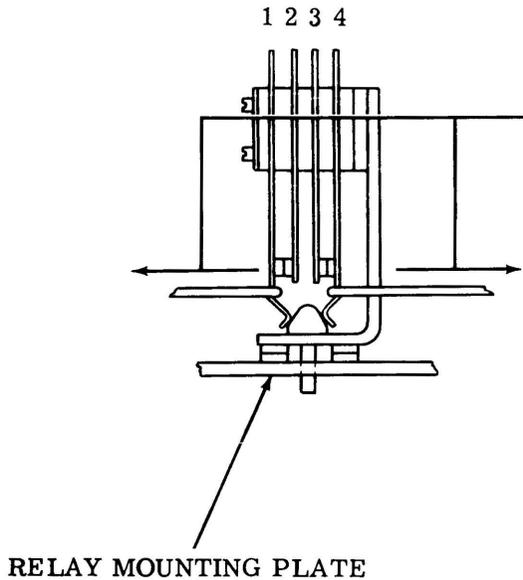
With bakelite plunger held flush with relay mounting plate, there should be a gap between the #1 and #2 contacts and between the #3 and #4 contacts.

Min 0.010 inch---Max 0.015 inch

To Adjust

Bend the #2 and #3 contact springs.

CONTACT SPRINGS



LINE SHUNT CONTACTS SPRING

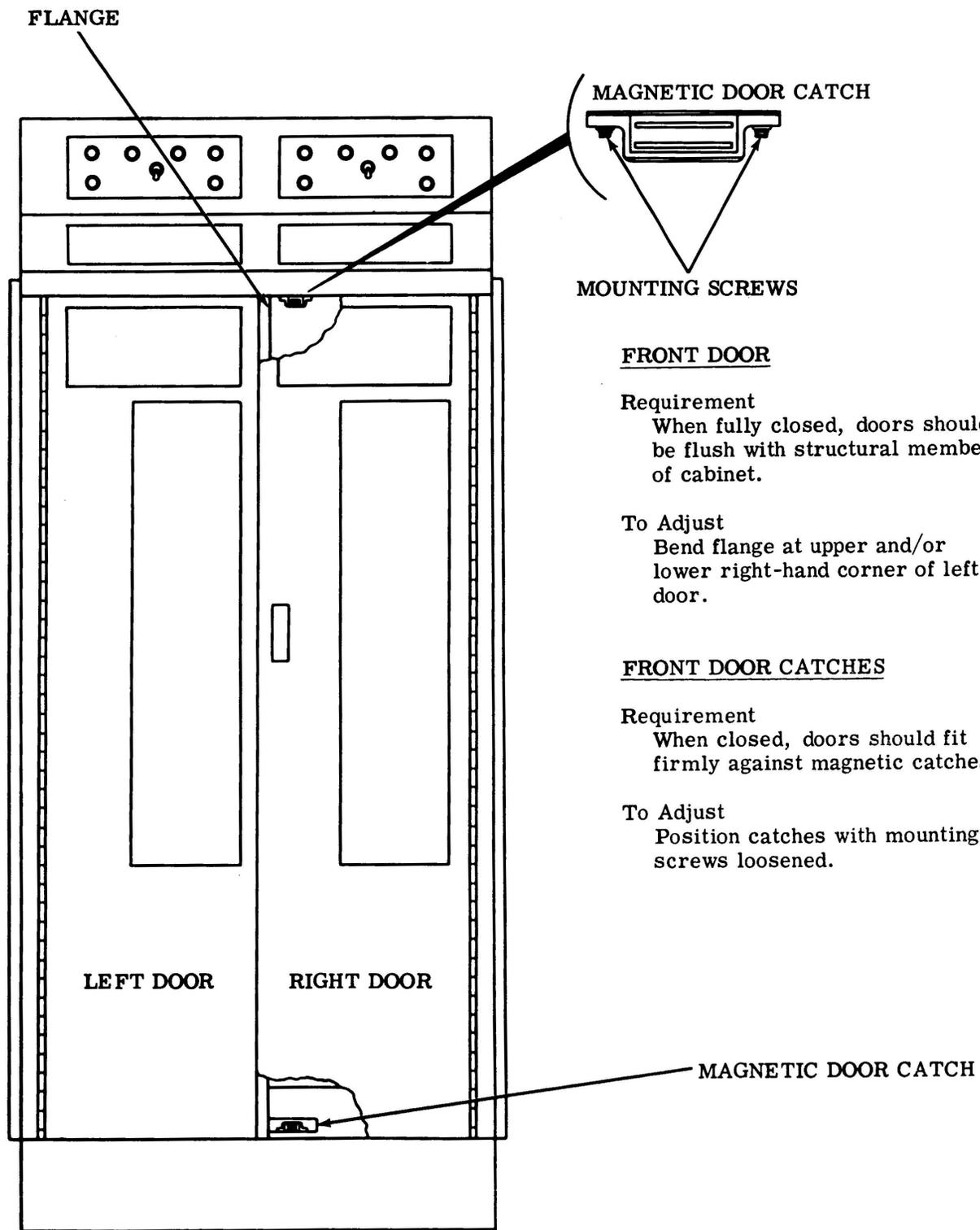
Requirement

Min 5 oz---Max 7 oz  
to separate contacts.

To Adjust

Bend #1 and #4 contact springs.

4.21 Cabinet Door Latch



FRONT DOOR

Requirement

When fully closed, doors should be flush with structural members of cabinet.

To Adjust

Bend flange at upper and/or lower right-hand corner of left door.

FRONT DOOR CATCHES

Requirement

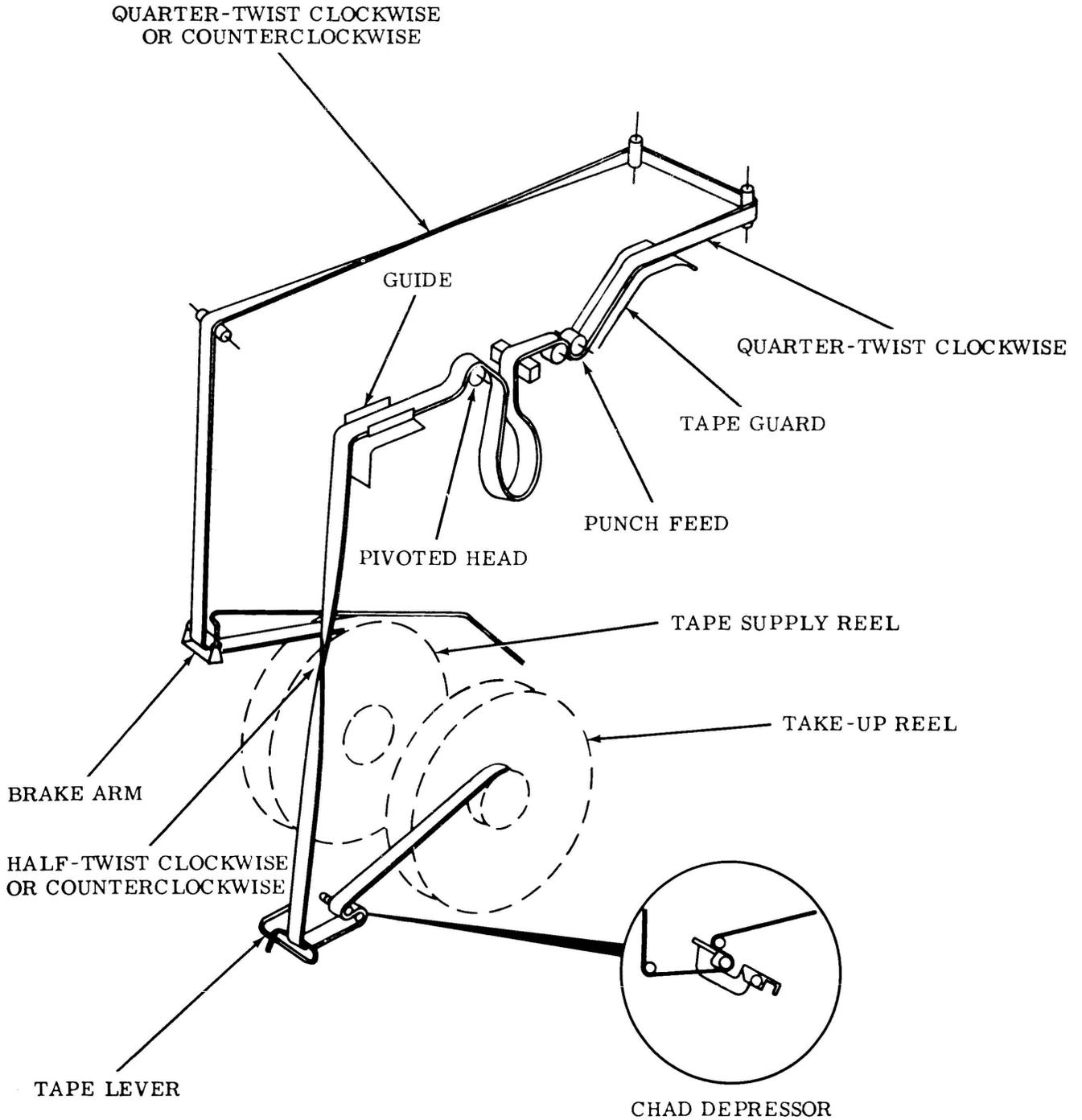
When closed, doors should fit firmly against magnetic catches.

To Adjust

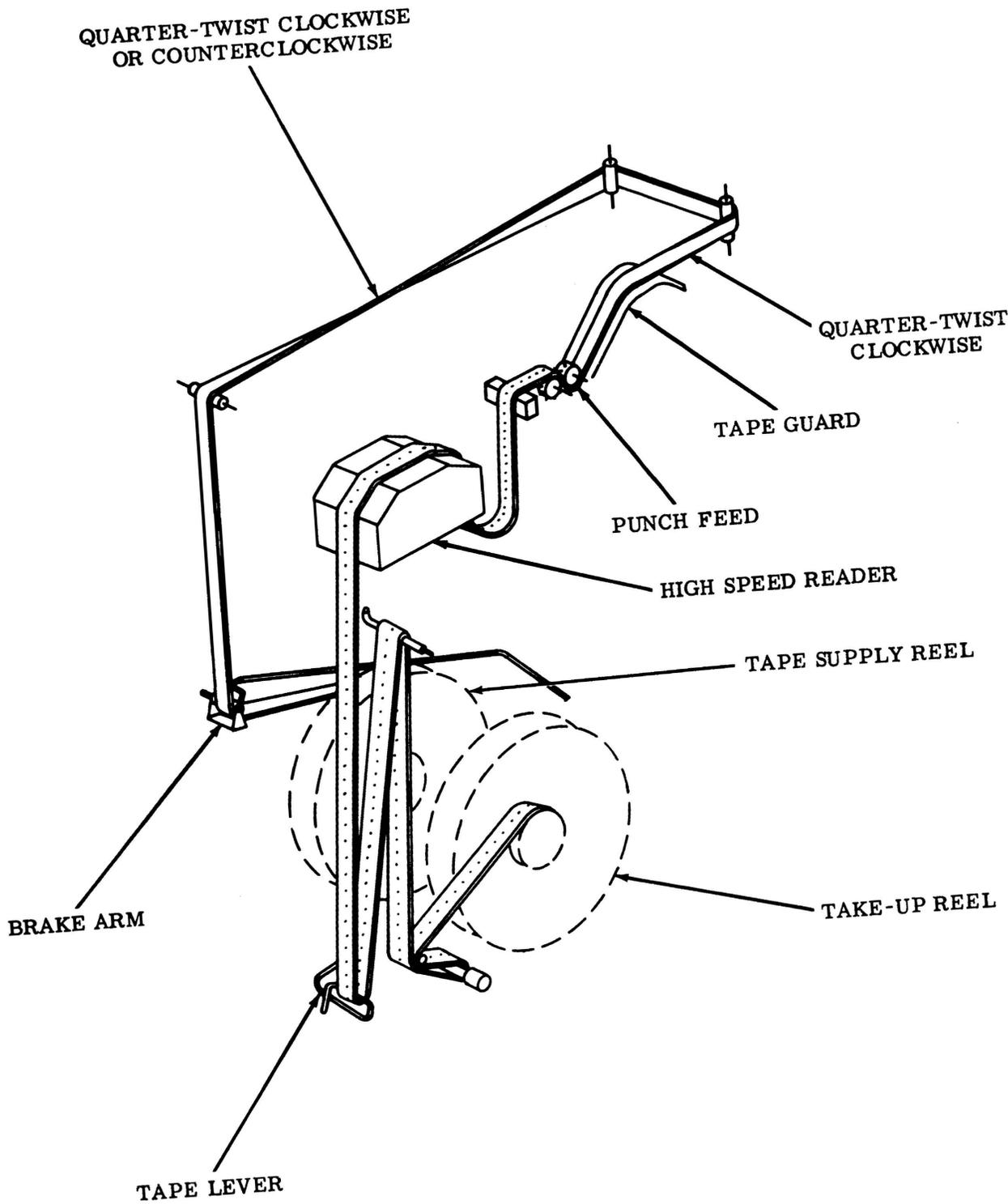
Position catches with mounting screws loosened.

5. TAPE ROUTING

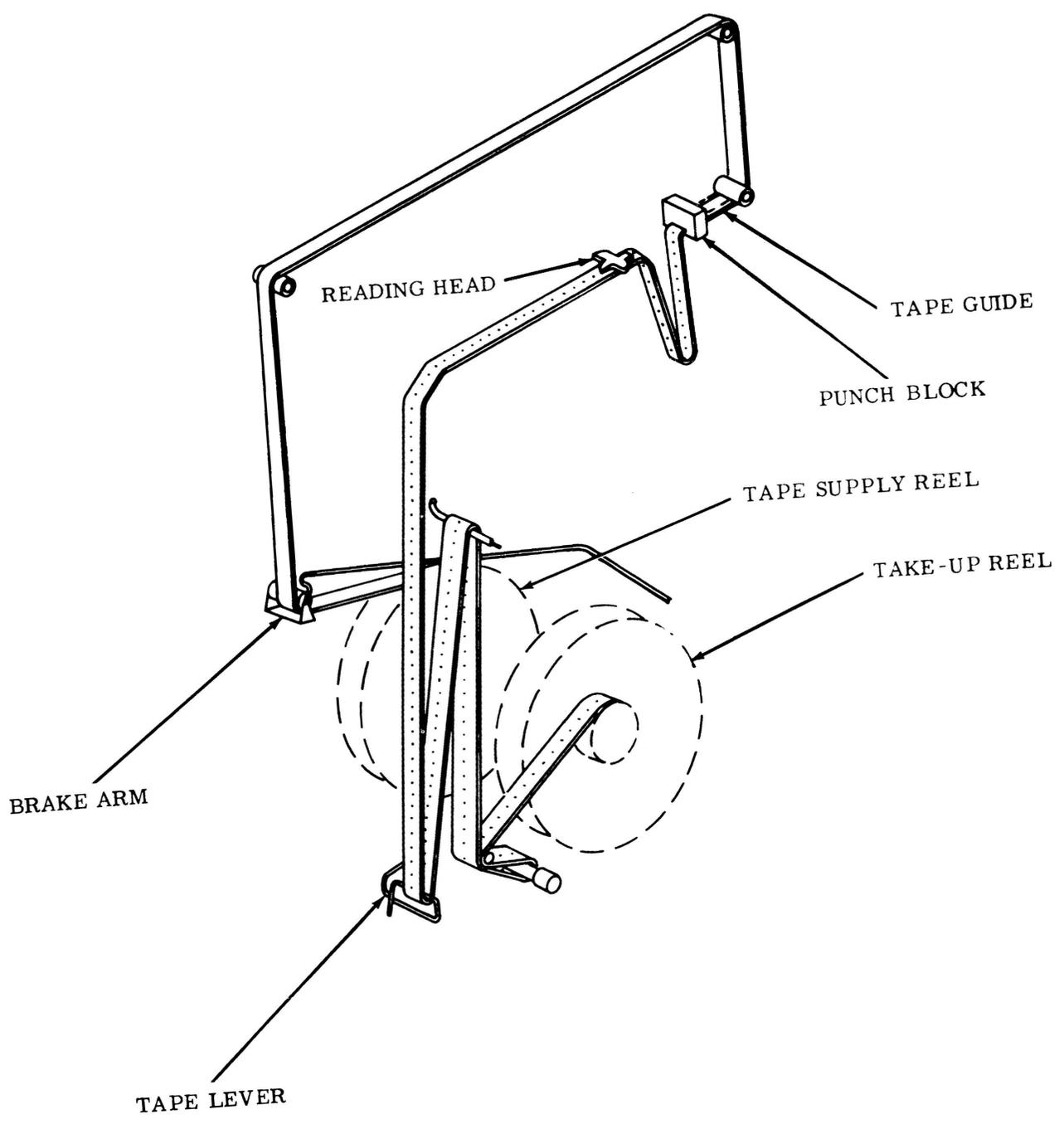
5.01 Standard Speed Reperforator Transmitter Set



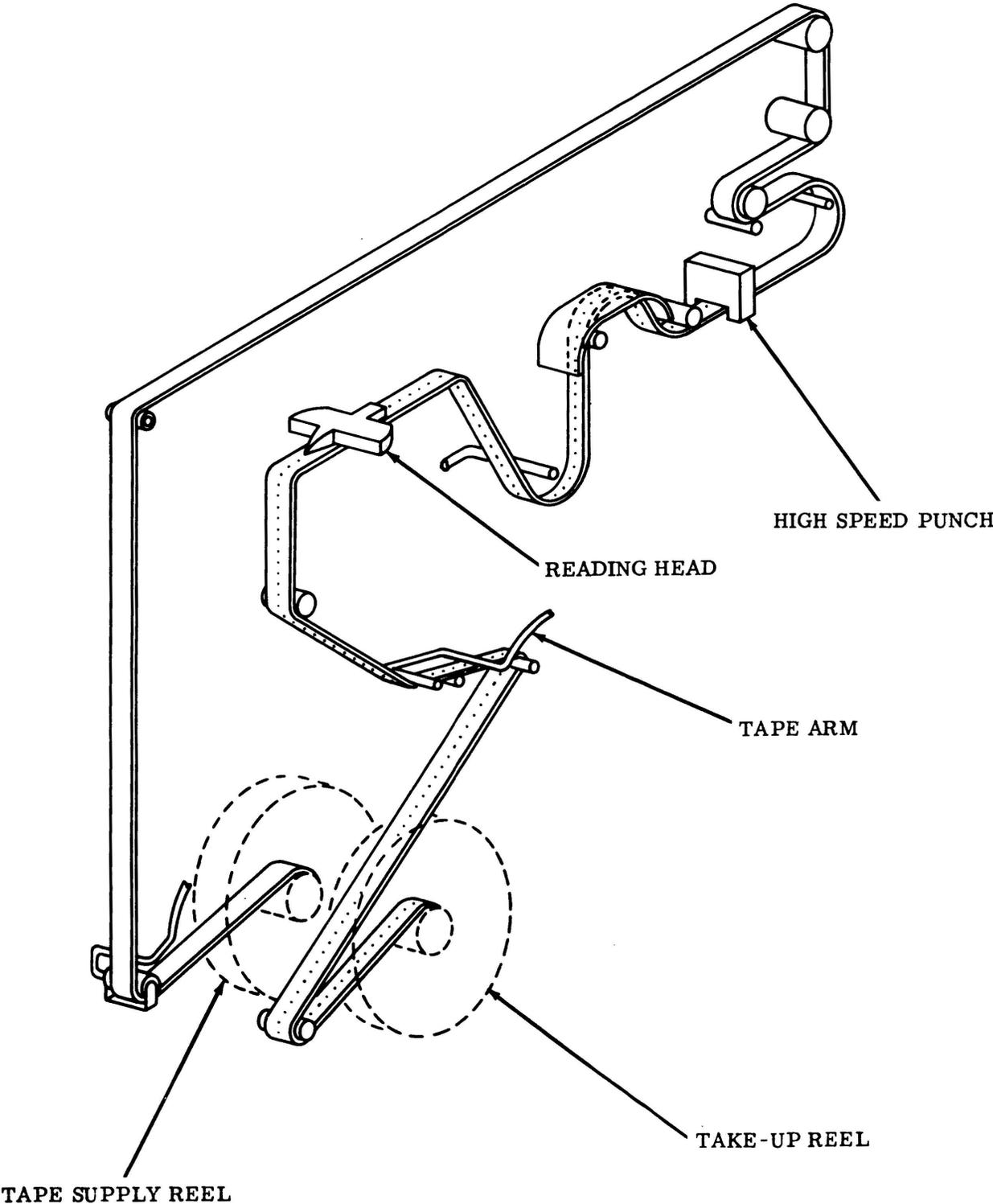
5.02 Low to High Speed Reperforator Transmitter Set



5.03 High to Low Speed Reperforator Transmitter Set



5.04 High to Low Speed Reperforator Transmitter Set (V Belt Drive)



5.05 Low to High Speed Reperforator Transmitter Set (V Belt Drive)

