TP183518 AND TP183519 SETS OF PARTS, TP182793 HEAT SINK PLATE AND TP180000 CODE BAR BASKET

APPARATUS AFFECTED: 33A, 33A-1, 33A-2, 33A-3, 33A-4, 33B, 33C-1, 33C-2, 33C-3, 33C-4, 33C-5, 33D, 33D-1, 33D-2, 33D-3, 33D-4, 33E, 33F, 33F-1, 33F-2, 33F-3, and 33F-4 Teletypewriter-Sets.

OBJECT: To improve the operation of the teletypewriter-set by replacing and/or modifying old style parts.

CHANGE: A TP183518 set of parts for updating 33-type ASR teletypewriter-sets and a TP183519 set of parts for updating 33-type KSR and RO teletypewriter-sets have been made available. 33-type teletypewriter-sets beginning with serial number 19090 or bearing a red asterisk adjacent to the serial number of the set have been equipped with the following new style or modified parts.

QUANTITY	PART NUMBER	DESCRIPTION	SETS OF PARTS TP183518 (ASR)	SETS OF PARTS TP183519 (KSR) (RO)
4	TP49420	Spring	X	X
1	TP76422	Spring	X	X
2	TP80945	Spring	X	X
1	TP81731	Spring	X	X
1	TP152893	Screw, 4-40 x .250 Hex.	X	
1	TP158148*	Washer, Felt	X	
1	TP177113	Insulator, Mica	X	X
1	TP180100	Guide	X	X
1	TP180102*	Spring	X	X
2	TP180511	Slide	X	X
1	TP180826	Lever, Detent	X	X
1	TP180828	Pawl, Feed	X	X
1	TP180830	Bracket	X	X
1	TP180865	Coil, Adjusting	X	X
1	TP180956*	Spring	X	X
1	TP181019	Lever	X	X
1	TP181020	Lever	X	X
4	TP181109	Isolator, Vibration	X	X
1	TP181138	Pad	X	X
1	TP181255*	Keylever	X	X
1	TP181276	Plate, Name	X	X
1	TP181297	Cover, Insulator	X	X
1	TP181322	Pawl, Function, C.R.	X	X
1	TP181323	Spring	X	X

*Not required to update a 33-type receiving-only teletypewriter-set.

© American Telephone and Telegraph Company, 1964
Printed in U. S. A.

QUANTITY	PART NUMBER	DESCRIPTION	SETS OF PARTS TP183518 (ASR)	SETS OF PARTS TP183519 (KSR) (RO)
1	TP182269	Mod. Kit, To Prevent Double Tripping	X	X
2	TP182275*	Wire, Contact	X	
1	TP182276	Lever, Trip	X	X
1	TP182277	Spring, Extension	X	X
1	TP182284	Insulator, Fibre	X	X
1	TP182286	Insulator	X	X
1	TP183017*	Armature Assembly	X	
1	TP183056*	Spring W/Point	X	
1	TP183057*	Insulator	X	
1	TP183111	Plate, Name	X	X
1	TP183126*	Clamp	X	
1	TP183130*	Insulator	X	
1	TP183136*	Plate, Vibration Dampener	X	
1	TP195221	Plate, Instruction	X	X

*Not required to update a 33-type receiving-only teletypewriter-set.

NOTE: OLD STYLE PARTS ARE SHOWN IN BULLETIN 1184B, CHANGE 3, DATED MARCH, 1963. NUMBERS IN PARENTHESES ARE PAGE REFERENCES.

The Following Changes Affect the Typing Unit

The TP49420 springs (26 turns of 0.016 wire — 0.0719 inch long) replace the TP86283 springs (38 turns of 0.012 wire — 0.075 inch long) (see page 2-13) associated with function pawls other than the answer-back blocking pawl and the carriage return function pawl.

A TP76422 spring (15 turns of 0.018 wire — 1/2 inch long) replaces the TP78824 spring (19 turns of 0.016 wire — 1/2 inch long) (see page 2-12) (in the code bar clutch trip lever mechanism) which hooks from the TP181019 trip lever to the TP181017 plate.

A TP80945 spring (20 turns of 0.016 wire — 19/32 inch long) replaces the TP76295 spring (16 turns of 0.018 wire 41/64 inch long) (see page 2-12) (in the function clutch trip lever mechanism) which hooks from the TP181017 plate to the TP181010 and TP181003 levers.

A TP81731 spring (25 turns of 0.012 wire — 39/64 inch long) replaces the TP180585 spring (41 turns of 0.009 wire — 5/8 inch long) (see page 2-7) (in the carriage lower plate mechanism) which hooks from the TP180512 slide to the TP180479 bracket.

The TP181322 carriage return function pawl (see page 2-13) has been modified, nickel-plated and hardened to Rockwell C43-48.

A TP182269 modification kit (part of TP183518 and TP183519 sets of parts) (in the answer-back mechanism) consists of the following parts:

TP182263 Bracket
TP182264 Post

TP156740	Screw	
TP124177	Lock washer	
TP7002	Flat washer	
TP44048	Flat washer	
TP182244	Cam Follower Lever (nickel-plated)	— replaces TP180822 Lever (see page 2-17) (black oxide finish)
TP182239	Latch Lever (nickel-plated)	— replaces TP180030 Lever (see page 2-24) (black oxide finish)
TP182240	Trip Lever (has small tab)	— replaces TP180086 Lever (see page 4-2) (does not have tab)
TP182262	Trip Lever (nickel-plated)	— replaces TP180981 Arm (see page 2-17) (black oxide finish)

The TP182263 bracket mounts to the TP182264 post by means of the TP156740 screw, TP124177 lock washer, and TP7002 flat washer. These assembled parts mount to the base casting in place of the TP180798 screw (see page 2-17). The TP44048 flat washer mounts between the TP182264 post and the base casting.

TP180511 carriage stop slide (see page 2-7) (two required) has been redesigned and hardened to Rockwell C54-58. There are no apparent means of identifying new and old style slides.

The TP180826 lever (see page 2-19) (associated with the TP180827 answer-back drum) has been modified by replacing the 90-degree bend with a 45-degree bend, case hardening to Rockwell 15M 82-86 and giving it a black oxide finish.

The TP180828 feed pawl (see page 2-17) (in the trip shaft mechanism) has been modified by reducing the over-all length by .005 inch.

The TP180830 bracket (see page 2-24) (component of the "HERE IS" mechanism) has been modified to include a stop projection to one of the two extensions in order to prevent excess travel of the TP180831 lever.

A TP182276 trip lever (nickel-plated) replaces the TP180843 trip lever (black oxide finish) (see page 2-22) in the answer-back trip magnet mechanism.

A TP182277 spring (14 turns of 0.018 wire — 9/16 inch long) replaces the TP180864 spring (7 turns of 0.026 wire — 5/8 inch long) (see page 2-17) which hooks to the TP180820 control lever in the answer-back control trip shaft mechanism.

The TP182137 contact assembly (see page 2-23) (part of the TP182135 and TP182136 clutch trip mechanism) has been modified by:

1. Replacing the TP183058 insulator adjacent to the TP183054 stiffener with a TP183130 insulator (has the same outline dimensions as the TP183054 stiffener).
2. Adding a TP183057 insulator (similar to TP183058 insulator) between the new TP183130 insulator and the existing TP183054 stiffener.
3. Providing an improved TP183056 contact spring which is dark gray instead of blue-black.

A TP180956 spring (39 turns of 0.015 wire — 13/16 inch long) replaces the TP180922 spring (48 turns of 0.013 wire — 7/8 inch long) (see page 2-11) which hooks from the TP180947 print suppression code bar to the TP180921 bracket.

The TP181019 code bar clutch trip lever (see page 2-12) and the TP181020 function clutch trip lever (see page 2-12) have been modified by adding an angle of approximately 25 degrees to the formed projection.

A TP180865 blinding contact adjusting coil and a TP182286 blinding contact fibre insulator (approximately 11/16 inch high and 3/16 inch wide) replace the TP180841 Neoprene insulator (3/8 inch long) (see page 2-24) in the answer-back mechanism. The new TP180865 adjusting coil mounts on the rear of the TP180832 link (see page 2-24) in place of the TP180841 Neoprene insulator.

The new TP182286 fibre insulator mounts on the existing TP180858 blinding contact wire (see page 2-19) with the formed section of the blinding contact wire extending through the slot in the insulator. The TP180858 contact is retained by one of the hooks of the existing TP152129 spring. The other end of the TP152129 spring hooks to the spring post on the TP180823 contact block.

Note 1: The new TP180865 adjusting coil should be installed and adjusted by rotating it on the TP180832 link in order to obtain the blinding contact wire requirement shown in Bulletin 273B, page 4-83, change 2, and in Section 574-100-703, Issue 2, page 87.

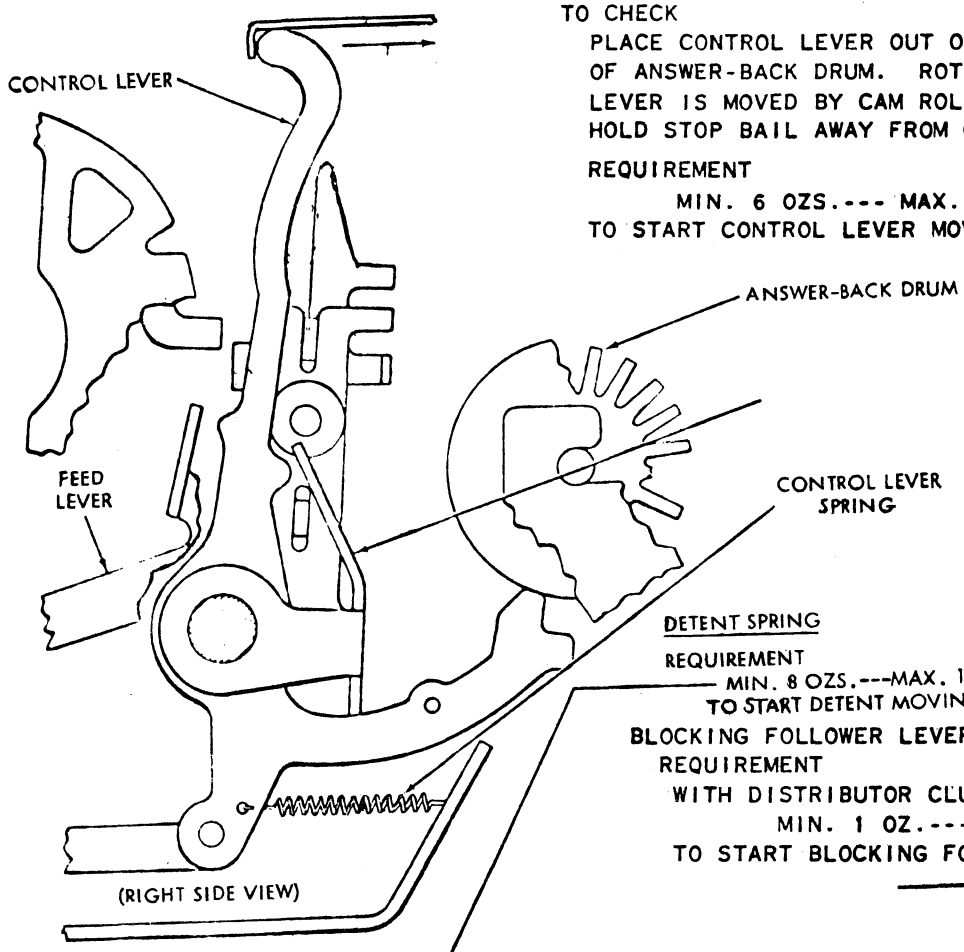
Note 2: There are a few units in the field equipped with the new TP180865 adjusting coil which replaces the TP180841 Neoprene insulator. However, in place of the new TP182286 fibre insulator mentioned above, a TP182242 insulator sleeve was inserted over a portion of the blinding contact in order to prevent it from shorting to ground. If this insulator is found on a unit, it should be discarded and the TP182286 fibre insulator incorporated.

When the above new style or modified old style parts have been incorporated into the typing unit, the new requirements shown in the figures shall be used.

NEW FIGURES	OLD FIGURES	
	SHOWN IN BULLETIN 273B ISSUE OF FEB. 1963	SHOWN IN SECTION 574-100-703 ISSUE 2, AUG. 1963
1	page 4-92	page 97
2	" 4-56	" 57
3	" 4-36	" 37
4	" 4-37	" 38
5	" 4-76	" 79
6	" 4-77	" 80
7	" 4-79	" 82
8	" 4-80	" 83
9	" 4-81	" 85
10	" 4-83	" 87

CONTROL LEVER SPRING
TO CHECK
PLACE CONTROL LEVER OUT OF INDENT AND ON HIGH PART OF ANSWER-BACK DRUM. ROTATE MAIN SHAFT UNTIL FEED LEVER IS MOVED BY CAM ROLLER TO ITS LOWEST POINT. HOLD STOP BAIL AWAY FROM CONTROL LEVER.

REQUIREMENT
MIN. 6 OZS.--- MAX. 8 OZS.
TO START CONTROL LEVER MOVING.



DETENT SPRING

REQUIREMENT
MIN. 8 OZS.---MAX. 12 OZS.
TO START DETENT MOVING.

BLOCKING FOLLOWER LEVER SPRING
REQUIREMENT
WITH DISTRIBUTOR CLUTCH DISENGAGED (LATCHED)
MIN. 1 OZ.--- MAX. 2-1/4 OZS.
TO START BLOCKING FOLLOWER LEVER MOVING.

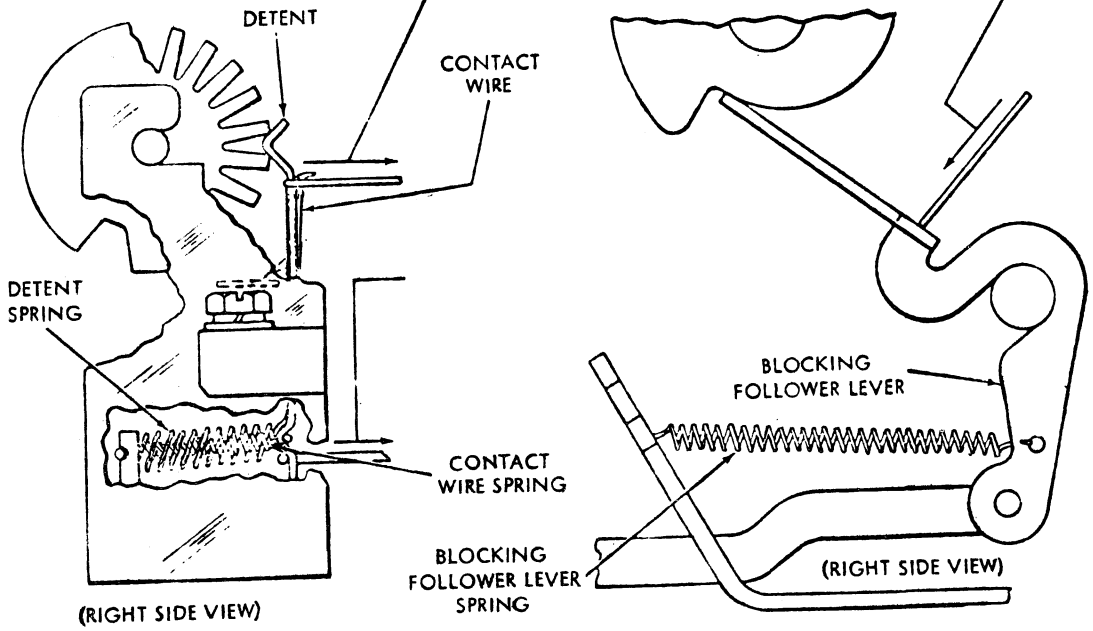
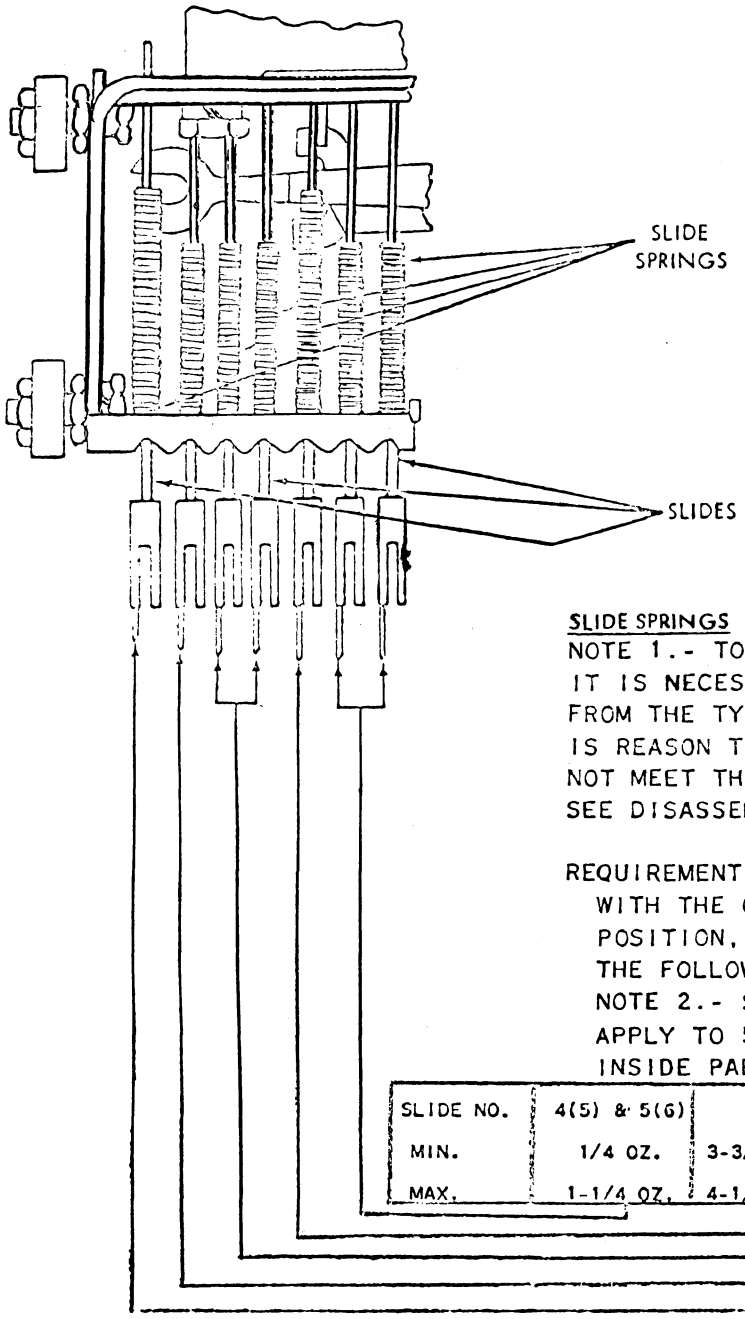


Fig. 1



(LEFT SIDE VIEW)

SLIDE SPRINGS

NOTE 1.- TO CHECK TENSIONS OF THE SLIDE SPRINGS, IT IS NECESSARY TO REMOVE THE CARRIAGE MECHANISM FROM THE TYPING UNIT. DO NOT CHECK UNLESS THERE IS REASON TO BELIEVE THAT THE SLIDE SPRINGS DO NOT MEET THE REQUIREMENTS. FOR INSTRUCTIONS SEE DISASSEMBLY AND REASSEMBLY (SECTION 5)

REQUIREMENT

WITH THE CARRIAGE POWER BAIL IN ITS STOP POSITION, TOWARDS THE FRONT, IT SHALL REQUIRE THE FOLLOWING TO START THE SLIDES MOVING.

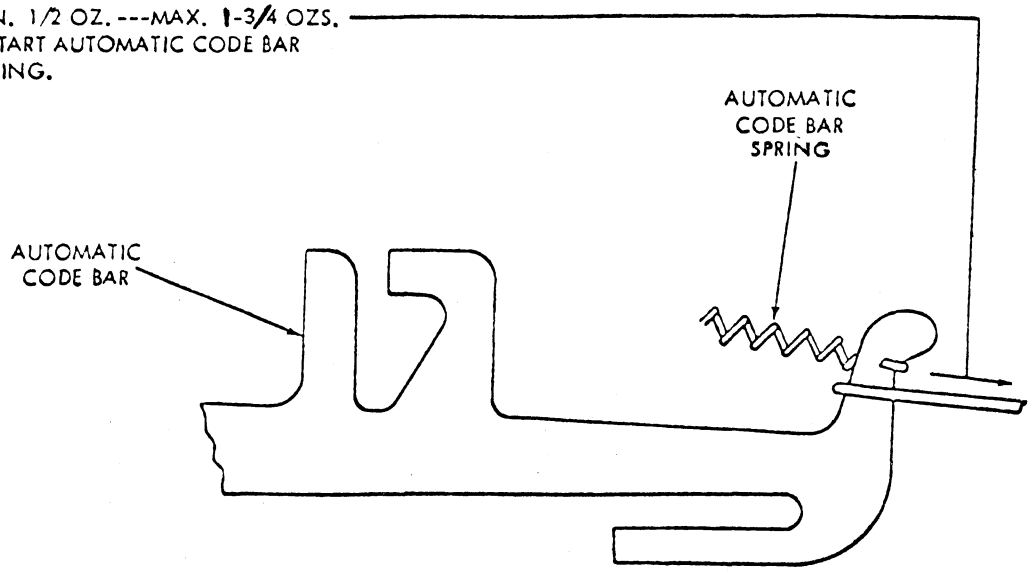
NOTE 2.- SLIDE NUMBERS OUTSIDE PARENTHESIS APPLY TO 5 LEVEL TYPING UNITS. SLIDE NUMBERS INSIDE PARENTHESIS APPLY TO 8 LEVEL TYPING UNITS.

SLIDE NO.	4(5) & 5(6)	3(4)	1(2) & 2(3)	0(1)	P.S.*
MIN.	1/4 OZ.	3-3/4 OZS.	2 OZS.	1/4 OZ.	3-3/4 OZS.
MAX.	1-1/4 OZ.	4-1/2 OZS.	3 OZS.	1 OZ.	4-1/2 OZS.

* PRINT SUPPRESSION

Fig. 2

REQUIREMENT
WITH CARRIAGE AT LEFT MARGIN
MIN. 1/2 OZ.---MAX. 1-3/4 OZS.
TO START AUTOMATIC CODE BAR
MOVING.



PRINT SUPPRESSION AND NO.3* (4) CODE BAR SPRING
REQUIREMENT
WITH PRINTER IN STOP CONDITION AND NO.3* (4)
CODE BARS FOLLOWER ON CARRIAGE LIFTED.
MIN. 12 OZS.--- MAX. 140ZS.
TO START CODE BAR MOVING.
NOTE 1.-CHECK BOTH THE PRINT SUPPRESSION AND NO.3* (4) CODE BAR SPRINGS.
NOTE 2.-NO.3* APPLIES TO 5 LEVEL TYPING UNIT. (4) APPLIES TO 8 LEVEL TYPING UNIT.

CODE BAR SPRINGS
REQUIREMENT
NOTE 3 - CHECK EACH CODE BAR SPRING OTHER THAN AUTOMATIC, PRINT SUPPRESSION AND NO. 3 (4).
WITH PRINTER IN STOP CONDITION AND CODE BARS FOLLOWER LIFTED.
MIN. 5-1/2 OZS.--- MAX. 7-1/2 OZS.
TO START CODE BAR MOVING.

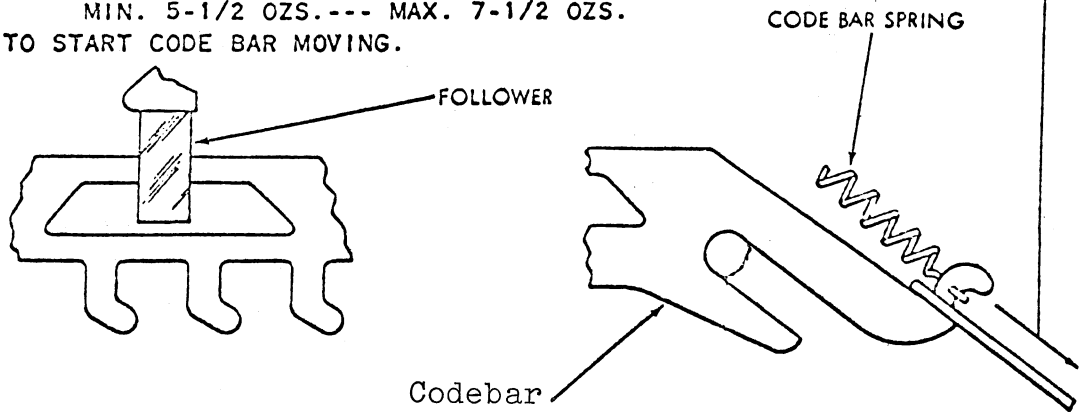


Fig. 3

FUNCTION PAWL SPRING (FUNCTION)

REQUIRMENT:

WITH PRINTER IN STOP POSITION AND ALL EXTERNAL LOADS WHICH WOULD INFLUENCE THE REQUIREMENT REMOVED.

MIN. 1-1/4 OZS.--- MAX. 2-1/2 OZS. TO START ANSWER-BACK BLOCKING PAWL AND CARRIAGE FUNCTION PAWL MOVING.

MIN. 9 OZS.--- MAX. 13 OZS. TO START ALL OTHER FUNCTION PAWLS MOVING.

LEFT ROCKER DRIVE ARM (FUNCTION)

TO CHECK

SET UP CARRIAGE RETURN CODE COMBINATION (---4-) or (1-34---8) IN SELECTOR. ROTATE MAIN SHAFT UNTIL FUNCTION BAIL IS AT HIGHEST POINT OF TRAVEL.

REQUIREMENT

MIN. 0.020 INCH---MAX. 0.040 INCH BETWEEN CARRIAGE-RETURN FUNCTION LEVER AND ITS FUNCTION PAWL.

TO ADJUST

USING PRY POINT, ADJUST ROCKER DRIVE ARM (ON FUNCTION ROCKER SHAFT) WITH CLAMP SCREW LOOSENED.

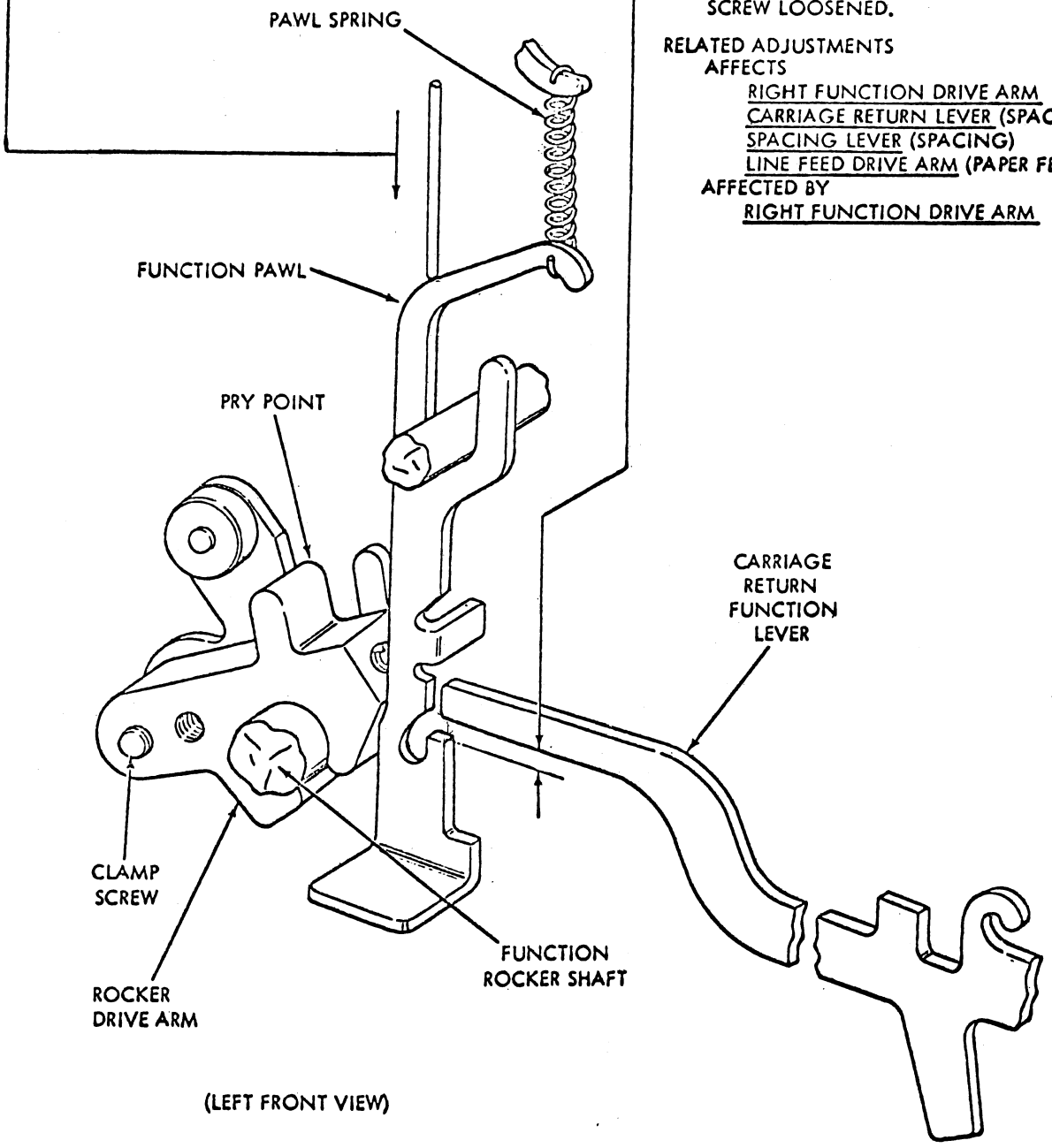
RELATED ADJUSTMENTS

AFFECTS

RIGHT FUNCTION DRIVE ARM
CARRIAGE RETURN LEVER (SPACING)
SPACING LEVER (SPACING)
LINE FEED DRIVE ARM (PAPER FEED)

AFFECTED BY

RIGHT FUNCTION DRIVE ARM



(LEFT FRONT VIEW)

Fig. 4

Note 1 - Replace Keyboard Assembly onto subbase at this point. For instructions, see "Disassembly and Reassembly" (Section 5).

Distributor Trip Linkage

To Check

With printer in stop condition, depress the RUB OUT key (8-level) or LTRS key (5-level) to trip distributor clutch. Rotate main shaft until the keyboard follower lever is moved to its lowest point by cam roller.

Note 2 - Prior to gauging the required gap, push end of universal lever that protrudes through the front of codebar basket to bottom of its guide slot and allow it to snap up.

Requirement

Early design keyboards with universal lever 180086 :

Min. 0.010 inch----Max. 0.035 inch between latch lever and universal lever.

Late design keyboards with universal lever 182240 :

Min. 0.010 inch---Max. 0.040 inch between latch lever and universal lever.

To Adjust

With clamp screw loosened, position trip linkage adjusting bracket using slot in casting and pry points.

Related Adjustment

Affects

Trip Lever Engagement

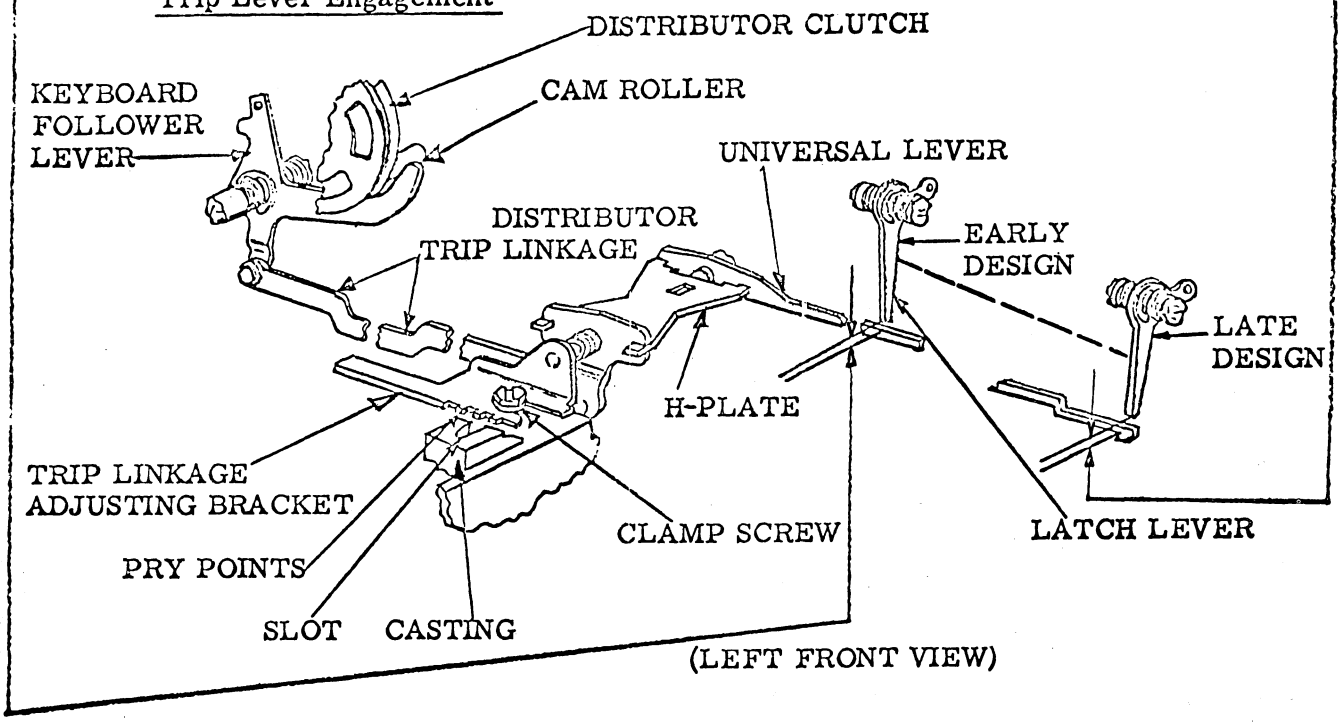


Fig. 5

Trip Lever Engagement

Note 1 - Requirement (1) applies only to orinters of late design equipped with the 182262 trip lever.

(1) Requirement: Disengage (latch) the distributor clutch. Depress any non-function keylever to unlatch the distributor clutch.

Note 2.- Some clearance must exist between the bracket and the trip lever. To obtain clearance, loosen screw and position bracket.

With the upper edge of the clutch shoe lever in line with the upper edge of the trip lever, Min. 0.015 inch---Max. 0.035 inch, clearance between the clutch shoe lever and the trip lever.

To Adjust: Remove the answer-back drum. Bend the center adjusting tab with bending tool 180993. Replace answer-back drum.

Note 3 - The answer-back control lever and reader trip lever should not be touching their respective stop bail adjusting tabs when checking the Trip Lever Engagement adjustment.

(2) Requirement: With the printer operating under power and the keyboard universal lever in the latched position, the clutch shoe lever shall be Min. flush---Max. 0.015 inch beyond the rearmost surface of the trip lever.

To Adjust: Late design printers with the 182262 trip lever, with screw loosened friction tight, position bracket.

Early design printers without the 182262 trip lever, remove answer-back drum. Bend center adjusting tab with bending tool 180993. See note 3 above. Replace answer-back drum.

Related Adjustments
Affects
Clutch Stop Bail
Shoe Lever
Affected By
Distributor Trip Linkage

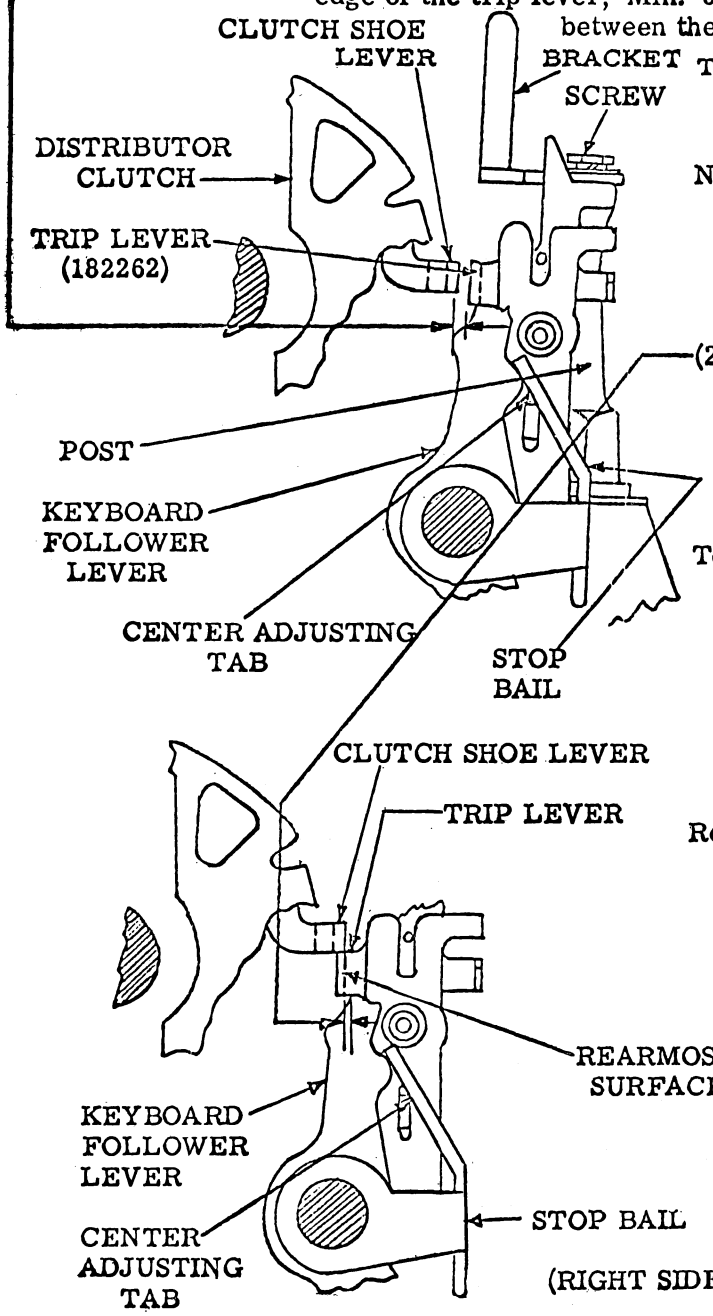


Fig. 6

Clutch Stop Bail

To Check

Trip distributor clutch and manually rotate main shaft to place upper edge of clutch shoe lever in line with upper edge of trip lever. Lift feed pawl and manually rotate answer-back drum counterclockwise until detent lever is located between "1" and "2" on answer-back drum.

Requirement

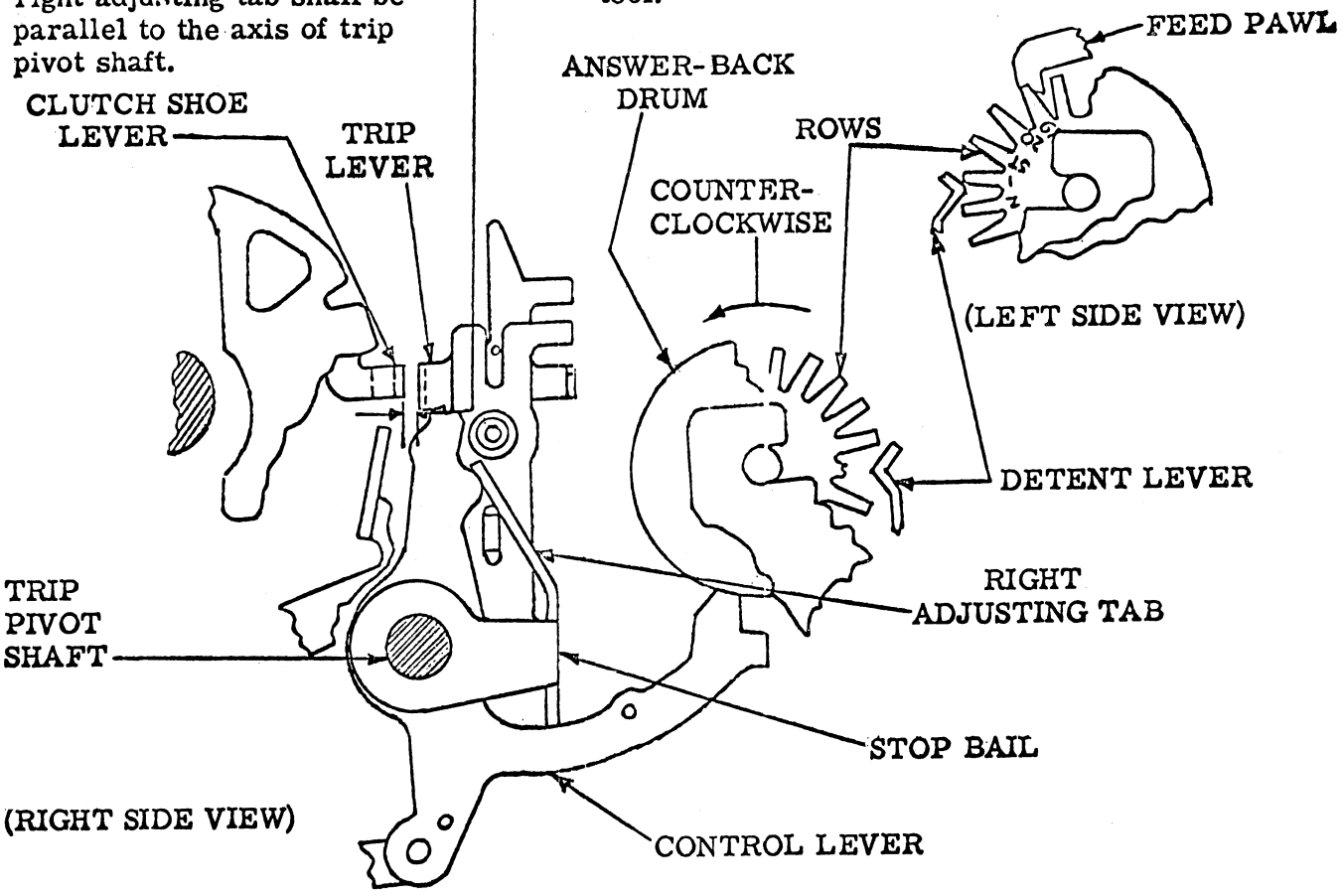
Min. 0.015 inch---Max. 0.035 inch clearance between clutch shoe lever and trip lever.

To Adjust

Bend right adjusting tab using 180993 bending tool.

NOTE

As gaged by eye, the plane of right adjusting tab shall be parallel to the axis of trip pivot shaft.



Related Adjustments

Affects

Shoe Lever

Trip Lever Engagement

Affected By

Drum

Fig. 7

Feed Pawl

(1) To Check: With answer-back drum fully detented in its home position, disengage (latch) distributor clutch. Manually trip distributor clutch and rotate mainshaft until the cam roller is on the high part of the feed lever.

Requirement: Some clearance between feed lever adjusting tab and control lever.

To Adjust: Bend feed lever adjusting tab toward the front of the printer.

(2) To Check: With answer-back drum fully detented in its home position, disengage (latch) distributor clutch. Manually trip distributor clutch and rotate mainshaft until the cam roller is on the high part of the feed lever. Lift up the feed pawl and position the feed lever to either the left or right to make the entire width of the feed pawl tooth ride only on the answer-back drum feed ratchet and to make the feed lever perpendicular to the answer-back drum axis as gauged by eye.

Requirement: Feed pawl tooth to rest on rear half of the top of row "16" of answer-back drum feed ratchet.

To Adjust: With feed pawl adjusting nut and screw friction tight, position feed pawl.

Related Adjustment
Affects
Trip Bail

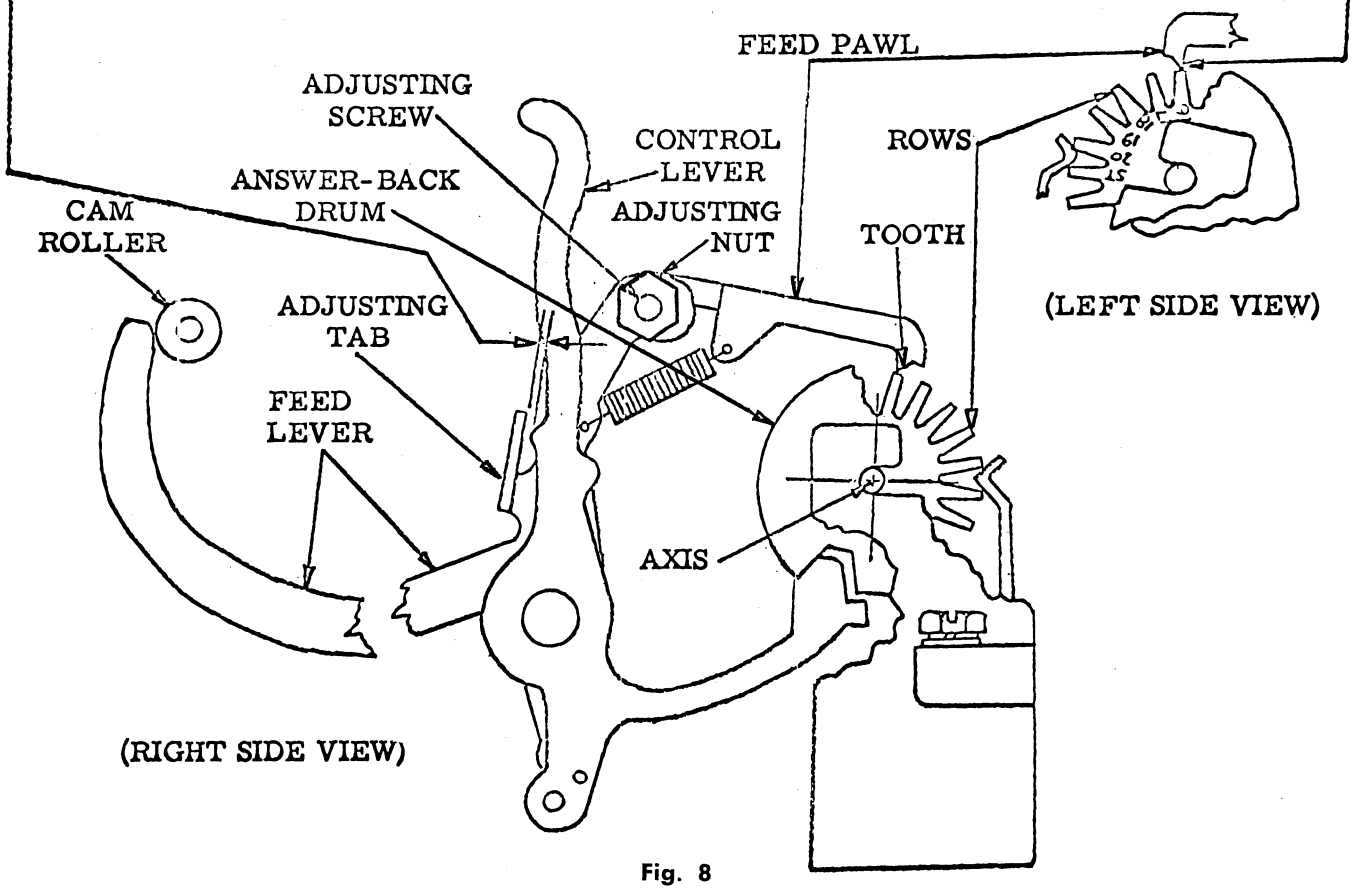


Fig. 8

HERE IS Adjusting Bracket

(1) To Check: With answer-back drum fully detented in its home position, trip distributor clutch and manually rotate mainshaft until feed lever is no longer in contact with cam roller. Depress HERE IS key with a force of 20 ozs. to 24 ozs.

Requirement: Early design typing units equipped with HERE IS adjusting bracket without a stop projection. Min. 0.015 inch---Max. 0.030 inch overtravel between feed pawl and face of answer-back drum feed ratchet tooth of row "17".

Late design typing units equipped with HERE IS adjusting bracket with a stop projection. Min. 0.025 inch---Max. 0.045 inch overtravel between feed pawl and face of answer-back drum feed ratchet tooth of row "17".

(2) To Check: With answer-back fully detented in its home position and the HERE IS key in its unoperated position, disengage (latch) distributor clutch.

Requirement: Some clearance between tip of HERE IS key and bellcrank.

To Adjust: With clamp screw loosened friction tight, position HERE IS adjusting bracket using pry points.

Related Adjustments: Affects: Blinding Contact Wire, Blocking Follower

Affected By: Feed Pawl

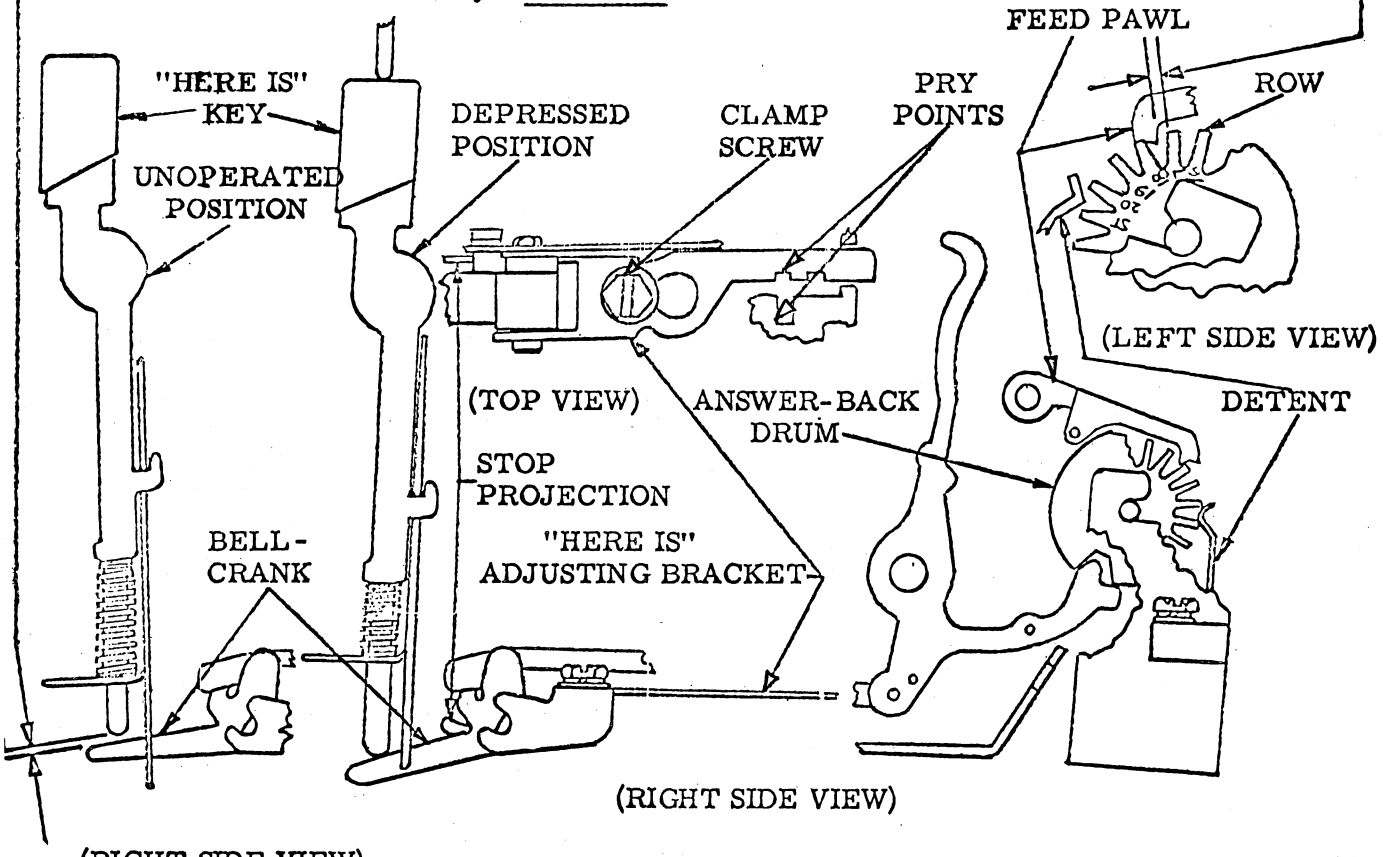


Fig. 9

Blinding Contact Wire

To Check
With answer-back drum fully detented in its home position, disengage (latch) distributor clutch.

Requirement
Min. 0.015 inch---Max. 0.045 inch gap between blinding contact wire and common contact.

To Adjust
Position adjusting spring on the tie link.

Related Adjustments
Affects
Armature Extension
Armature Gap
Trip Lever
(These three adjustments are on answer-back trip mechanism).
Affected By
Drum

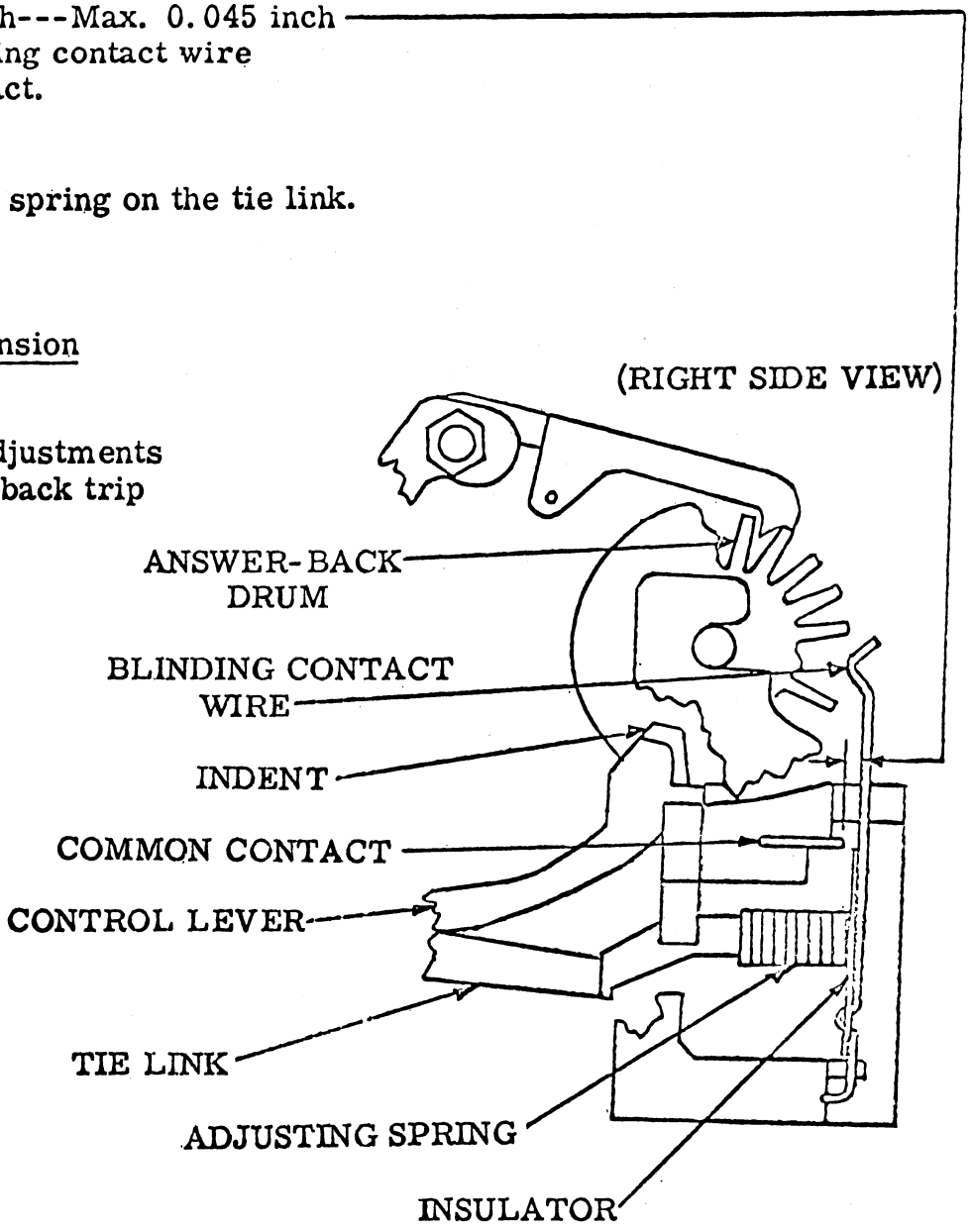


Fig. 10

The Following Changes Affect the Tape Reader

TP183136 vibration dampener plate (resembles the lower section of the outer vertical section of the TP183030 top plate assembly shown as TP183048 top plate assembly on page 6-3) has been added to the tape reader assembly. The new plate mounts to the outer vertical section of the TP183030 by means of a new TP152893 screw (replaced TP151152 screw) and the existing TP110743 lock washer and TP2034 flat washer formerly used to mount the TP183030 top plate assembly to the TP183061 magnet core assembly (see page 6-4).

The TP183017 armature assembly (see page 6-4) of the tape reader has been modified to strengthen the right extension member (viewing the tape reader from the rear). A spacer has been welded between the right side of the right vertical member (close to the TP183006 shaft) and the left side of the right vertical member. With this modification, the TP183006 tape reader shaft must be reversed to clear the added welded spacer. The two outer retainers mount on each side of the left or outer bracket of the TP183061 magnet core assembly and the inner two retainers mount on each side of the left vertical extensions of the TP183061 magnet assembly.

Two TP182275 contact wires (flattened to 0.017) which give added stiffness, replace the two TP183024 contact wires (round) (see page 6-4) of the start-stop switch in the tape reader.

A TP158148 felt washer has been added to the TP183017 armature assembly (see page 6-4) in the tape reader. The new felt washer mounts on the shoulder of the welded stud on the right-hand extension (adjacent to the TP183011 feed pawl) viewing the reader from the rear.

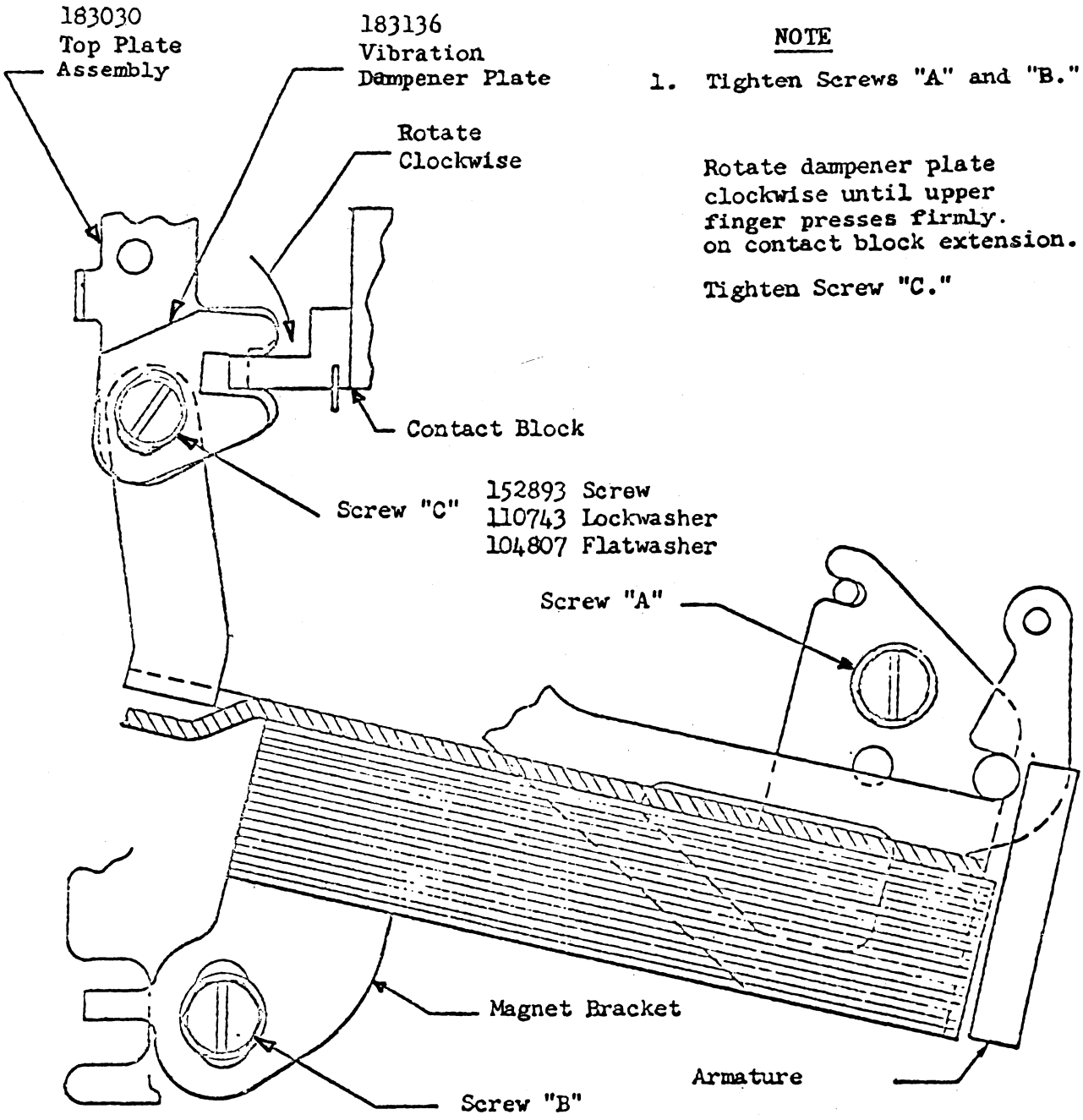
When the TP158148 felt washer is installed, it shall be saturated with oil per instruction in Bulletin 273B, dated February, 1963, page 6-1, and Section 574-100-704, Issue 2, par. 1.06, page 1.

When the above new style or modified old style parts have been incorporated into the tape reader, the following new requirements shown in the figures shall be used:

NEW FIGURES	OLD FIGURES	
	SHOWN IN BULLETIN 273B ISSUE OF FEB. 1963	SHOWN IN SECTION 574-100-703 ISSUE 2, AUG. 1963
11	—	—
12	page 4-105	page 105
13	" 4-106	" 106
14	" 4-107	" 107
15*	" 6-20	" 20
16*	" 6-22, par. 6-17c	" 22, par. 2.58
17*	" 6-22, par. 6-17d	" 22, par. 2.59
18*	" 6-23, par. 6-17e	" 23, par. 2.60

*These revised figures should be used with or without the new or modified old style parts incorporated in the tape reader.

Tape Reader Vibration Dampener Plate Assembly



NOTE

1. Tighten Screws "A" and "B."

Rotate dampener plate clockwise until upper finger presses firmly. on contact block extension.

Tighten Screw "C."

Fig. 11

Trip Lever Overtravel

To Check

Trip distributor clutch by momentarily holding armature in its attracted position. Rotate main shaft until cam roller is on high part of reader trip lever cam. Take up play in the armature toward the rear and release. Position the reader trip lever to the center of the armature extension.

Requirement

Min. 0.010 inch---Max. 0.018 inch clearance between the end of armature extension and latching surface of reader trip lever.

To Adjust

With armature extension mounting screw loosened friction tight, position armature extension using pry point.

Related Adjustment

Affects

Contact Gap

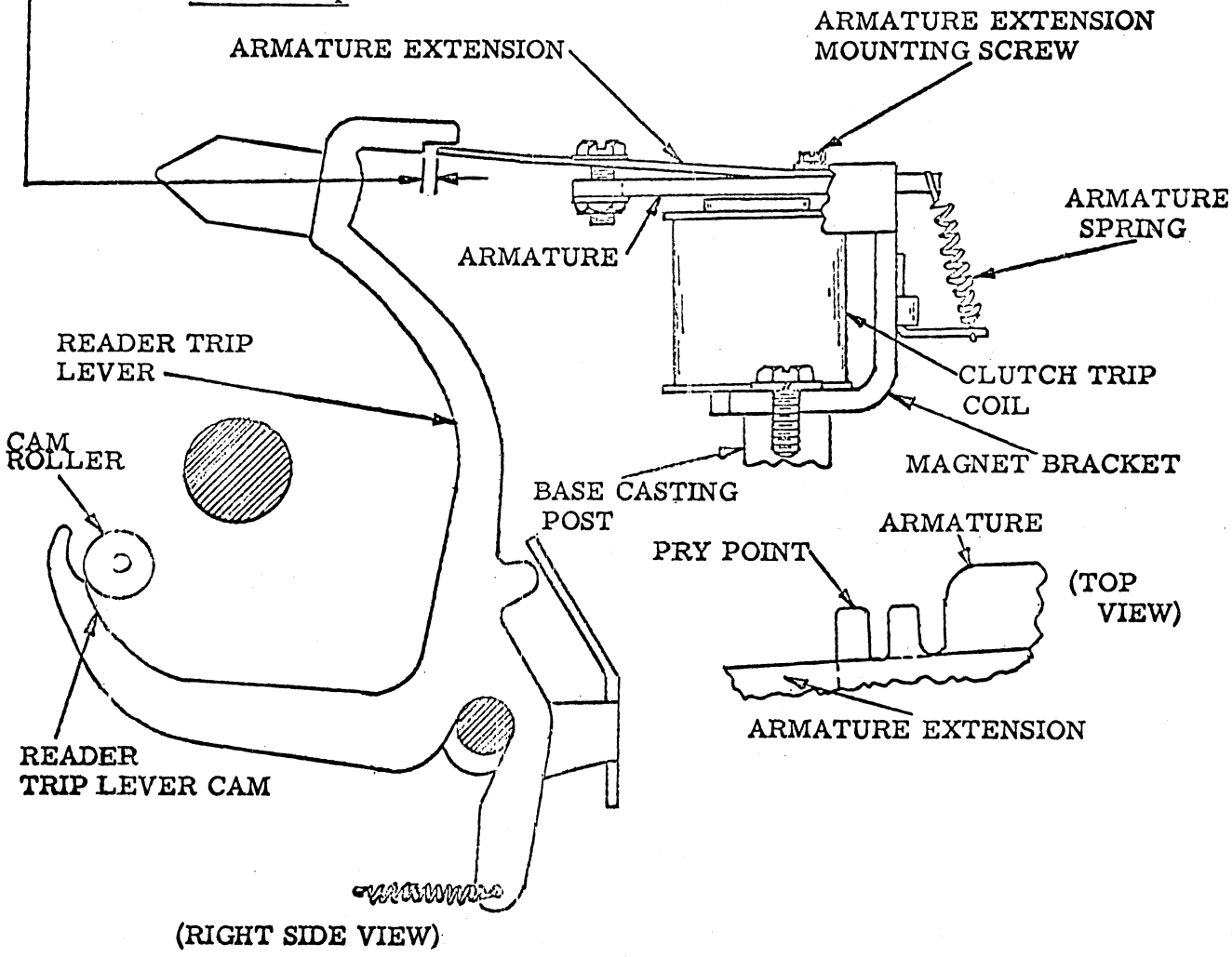


Fig. 12

Armature Extension

To Check

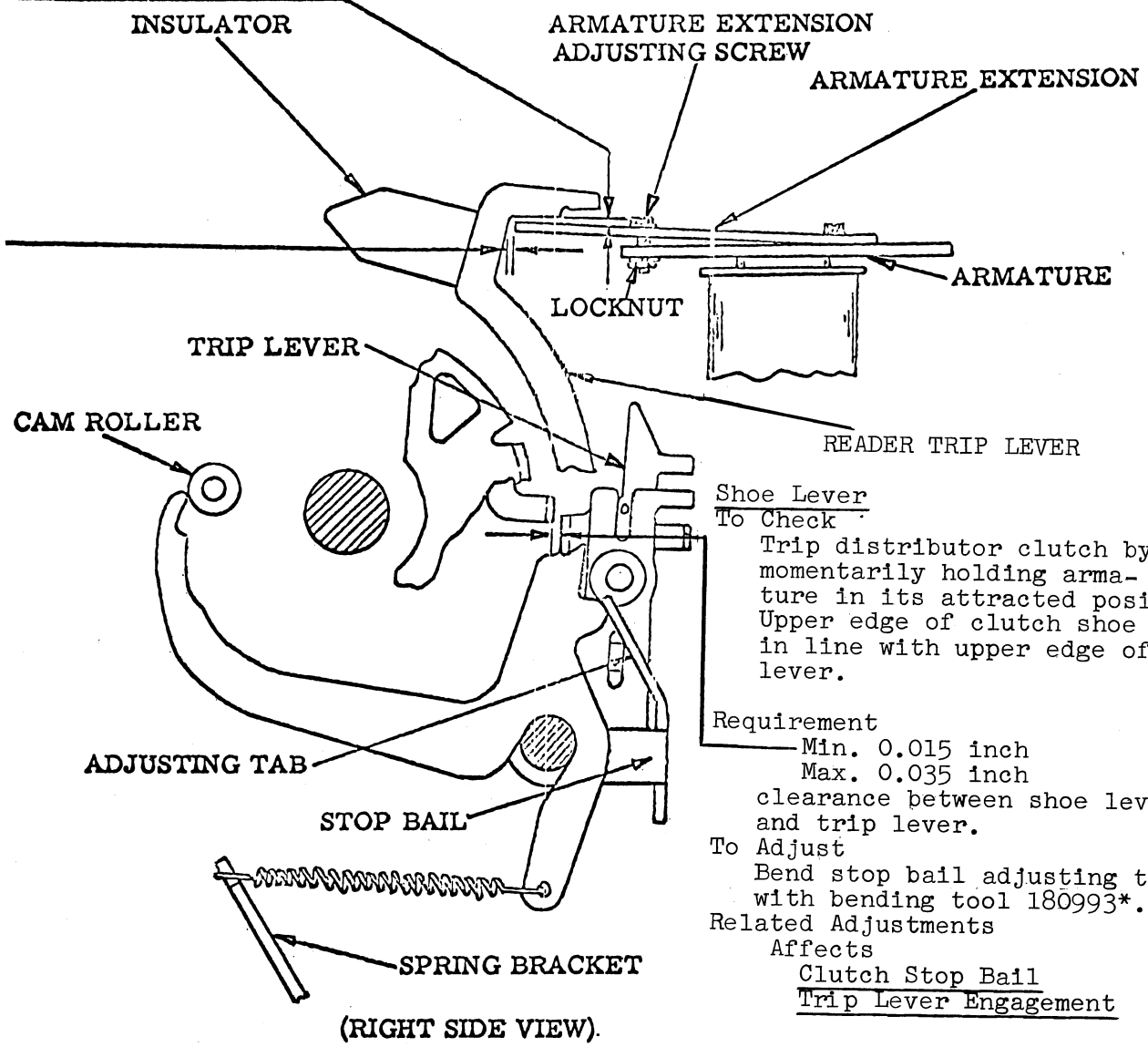
Place typing unit in stop condition. Hold armature in attracted position and rotate main shaft until a clearance of Min. some---Max. 0.040 inch exists between end of armature extension and reader trip lever.

Requirement

Min. some---Max. 0.010 inch clearance between the armature extension and reader trip lever at its closest point.

To Adjust

With armature extension adjusting screw and locknut loosened, position armature extension using armature extension adjusting screw.



Shoe Lever

To Check

Trip distributor clutch by momentarily holding armature in its attracted position. Upper edge of clutch shoe lever in line with upper edge of trip lever.

Requirement

Min. 0.015 inch
Max. 0.035 inch clearance between shoe lever and trip lever.

To Adjust

Bend stop bail adjusting tab with bending tool 180993*.

Related Adjustments

Affects

Clutch Stop Bail
Trip Lever Engagement

Fig. 13

Contact Gap

To Check

Trip distributor clutch by momentarily holding armature in its attracted position. Rotate main shaft until cam roller is on high part of reader trip lever cam. Position the reader trip lever to the center of the armature extension.

Requirement

Min. 0.027 inch---Max. 0.041 inch gap between contacts.

To Adjust

With contact bracket mounting screws loosened friction tight, position contact bracket using pry points.

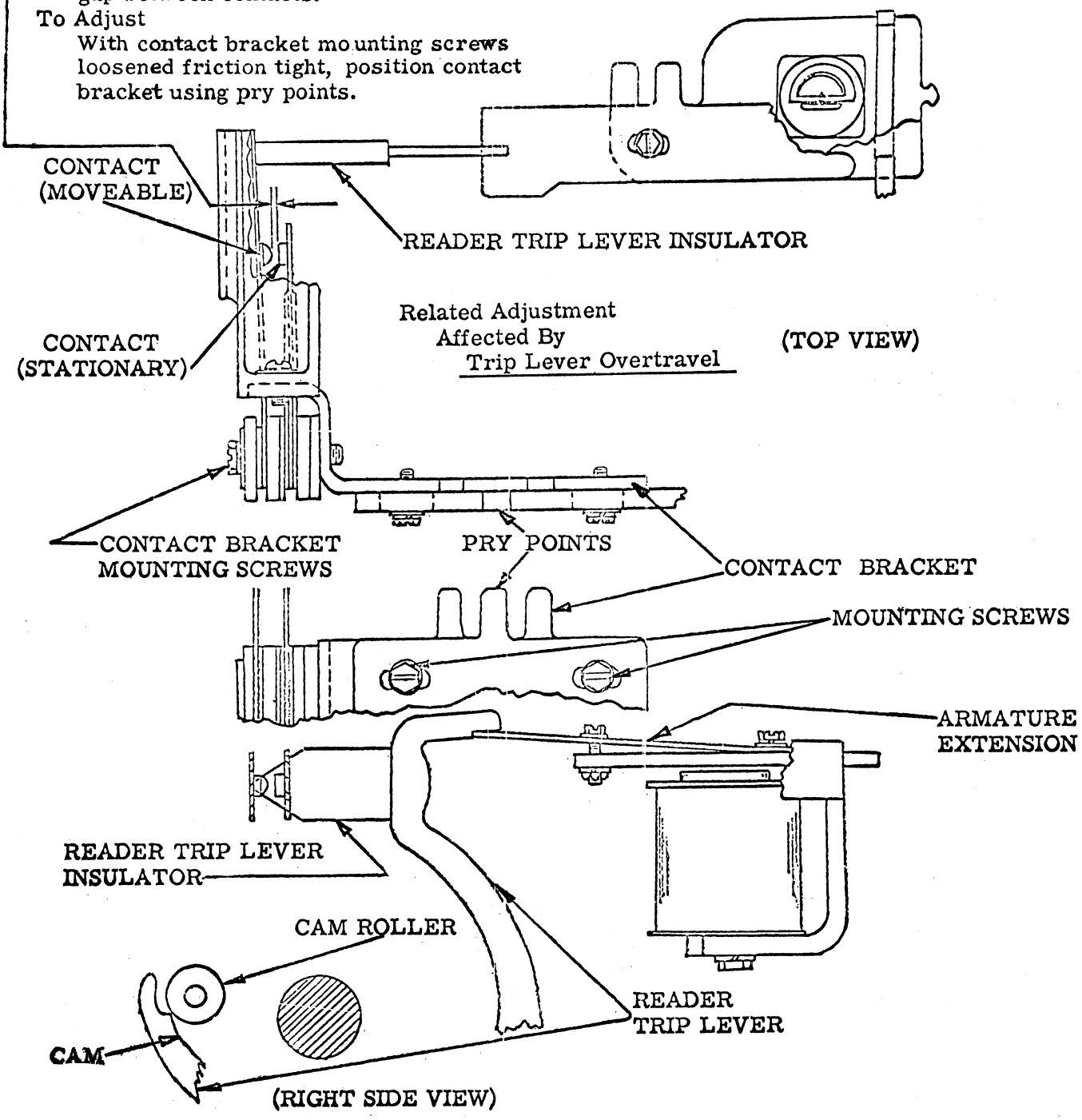


Fig. 14

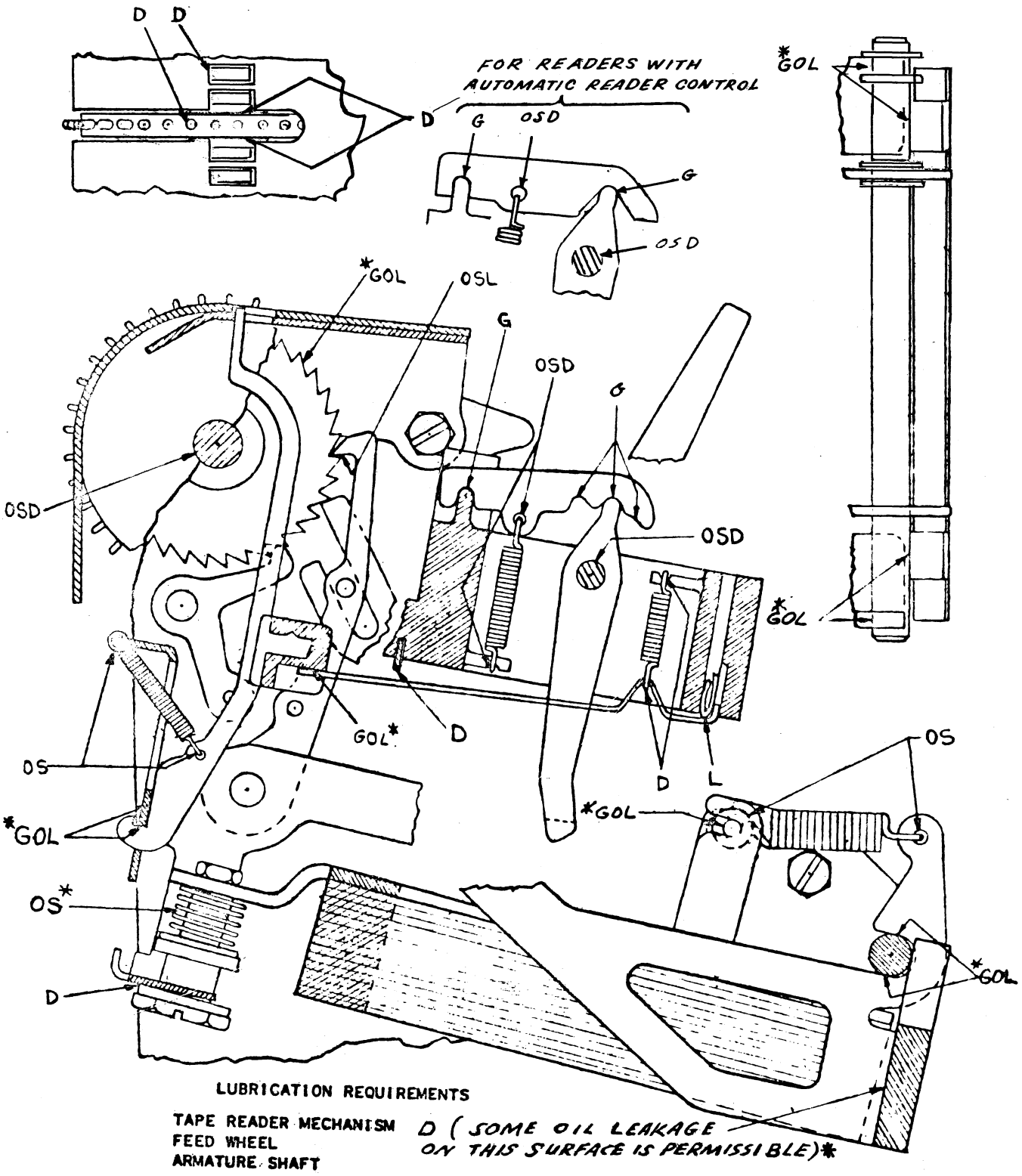
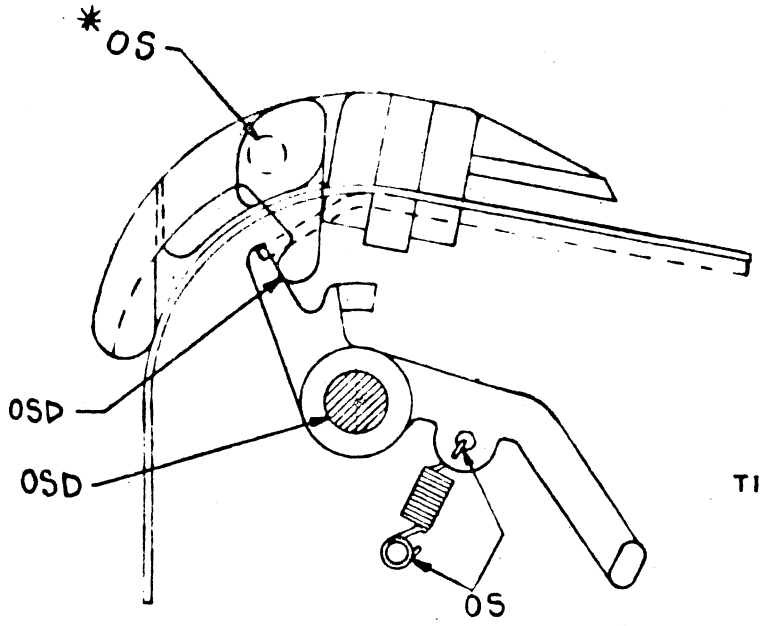

D D
FOR READERS WITH AUTOMATIC READER CONTROL
D
G
OSD
G
OSD
*GOL
*GOL
OSL
G
OSD
G
OSD
OSD
*GOL
GOL*
D
OS
*GOL
OS*
D
D
L
*GOL
OS
*GOL
LUBRICATION REQUIREMENTS
TAPE READER MECHANISM
FEED WHEEL
ARMATURE SHAFT
D (SOME OIL LEAKAGE ON THIS SURFACE IS PERMISSIBLE)*

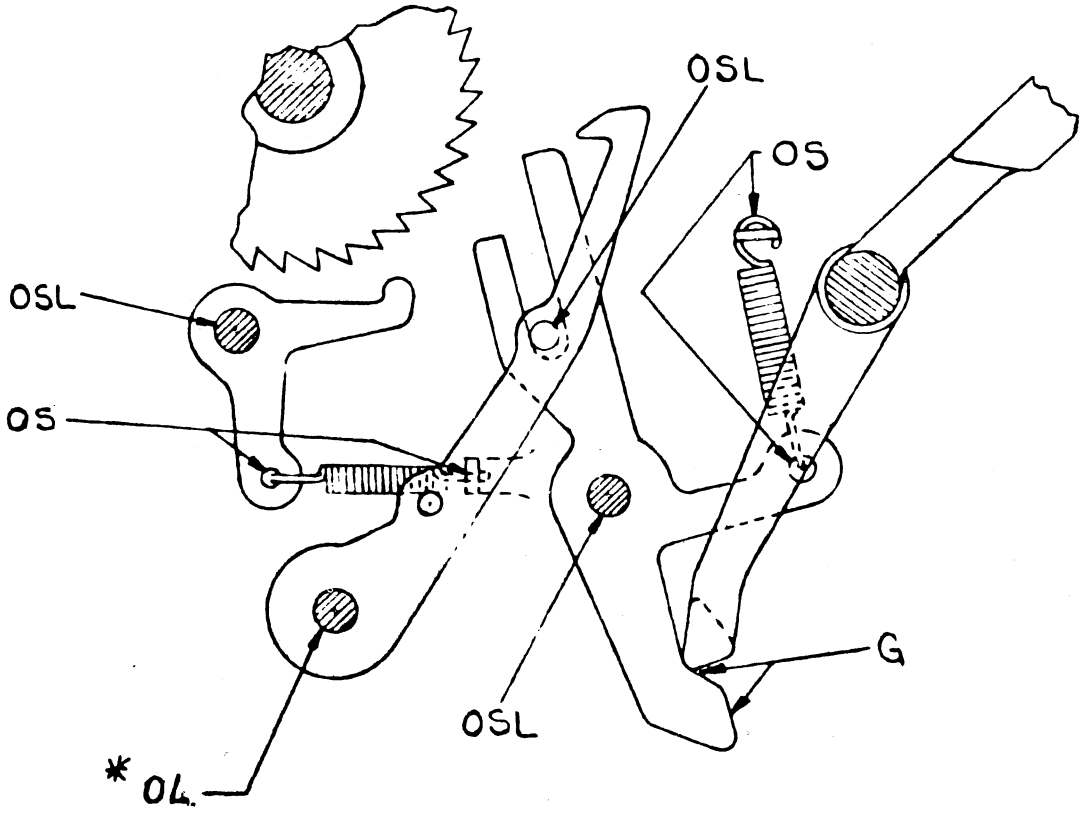
Fig. 15



LUBRICATION REQUIREMENTS

TIGHT TAPE MECHANISM

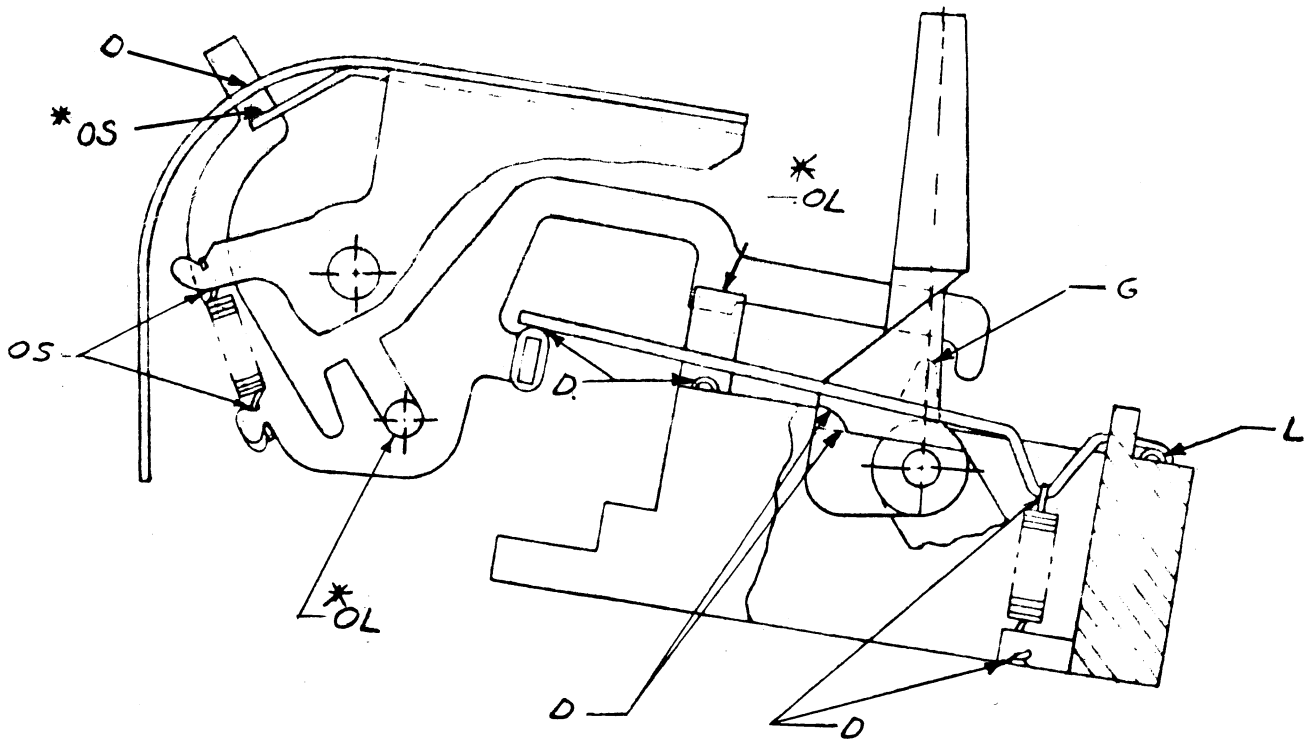
Fig. 16



LUBRICATION REQUIREMENTS

FEED PAWL MECHANISM

Fig. 17



LUBRICATION REQUIREMENTS

CONTROL MECHANISM

Fig. 18

The Following Changes Affect the Keyboard

The TP181255 control keylever has been modified by increasing the width of the horizontal section (below the area which inserts into the keytop) and the adjoining vertical section, including the formed offset, from 3/16 inch to 5/16 inch.

There is no reference made to TP181255 keylever in Bulletin 1184B.

A TP180102 spring (25 turns of 0.013 wire — 1-5/8 inch long) (see page 4-5) replaces the TP180088 (23 turns of 0.018 wire 1-7/8 inch long) spring associated with the control keylever.

The TP180000 code bar basket (see page 4-2) has been modified by increasing the length of the vertical slot provided for the "HERE IS" keylever by approximately 3/32 inch. The keylever slots on modified code bar basket are of uniform height.

Note: It is not recommended that this change be made in the field.

The TP180100 guide (see page 4-3 and 4-4) has been added to the code bar mechanism in order to prevent any side movement of the TP180086 lever (see page 4-2).

Note: Some units are equipped with the TP180100 guide.

The Following Changes Affect the Call Control Assembly

A TP183111 adhesive backed nameplate 3/8 inch high and 1-1/2 inch long containing the words, "CAUTION HIGH VOLTAGE" has been added to the TP182793 heat sink plate (see page 3-7) just above the section provided for the TP181675 transistor.

A TP181297 insulator cover has been added to the call control assembly. The ear tabs of the insulator fit beneath the upper extensions of the TP182704 bracket (see page 3-6) and are formed over the rear connectors. The cables and power cords are routed through the rectangular opening at the bottom of the insulator.

A TP177113 mica insulator has been added to the existing TP117113 mica insulator (in the TP182695 selector magnet driver assembly) between the TP181675 power transistor (see page 3-7) and the TP182793 heat sink plate.

A TP182284 fibre insulator 4-3/8 inches high and 1 inch long has been added to the selector magnet driver assembly to prevent the capacitor from shorting to ground. The insulator is placed between the TP182523 (see page 3-7) clamp and the TP182501 (see page 3-7) capacitor.

A TP181276 adhesive backed nameplate (see page 3-6) 1 inch high and 1-3/8 inch long which contains fuse rating and associated motor number has been added to the (top of the right extension) TP182704 bracket of the call control assembly.

The TP182793 heat sink plate has been modified.

The diameter of the clearance holes stamped E and B (for the transistor leads) has been increased from 0.250 inch to 0.281 inch and the transistor mounting screw body holes stamped C have been counterbored to a diameter of 0.250 inch and a depth of 0.062 inch.

Note: It is not recommended that this change be made in the field.

The Following Changes Affect the Sub-Base

A TP183126 black oxide steel cable clamp has been added to the front lip of the TP181103 sub-base (see page 2-25) in order to retain the tape reader cable. The cable clamp should be centrally located on the lip.

A TP195221 instruction plate 7/8 inch high and 1-1/4 inches long which provides supply input and signal input voltage information has been added to the rear of the TP181103 sub-base (see page 2-25). The plate mounts to the right of the power cables (viewing the unit from the rear).

The four TP181101 rubber vibration isolators (31/32 inch high) (see page 2-25) located on the TP181103 sub-base are replaced by four TP181109 rubber isolators that are approximately 53/64 inch high.

The old style TP181138 polyester urethane pad (5/8 inch thick) (see page 2-25) which rests on the bottom surface of the TP181103 sub-base is replaced by a new style TP181138 polyester urethane pad that is 1/2 inch thick.

IDENTIFICATION: See "CHANGE".

INTERCHANGEABILITY: In general, new and old style parts are individually interchangeable.

CLASSIFICATION FOR APPARATUS FURNISHED BY TELETYPE: 33-type teletypewriter-sets beginning with serial number 19090 and 33-type teletypewriter-sets having a red asterisk adjacent to the serial number of the set are equipped with a TP183518 or TP183519 set of parts and a new style TP182793 heat sink plate and new style TP180000 code bar basket. These teletypewriter-sets are adjusted and lubricated in accordance with information under *"CHANGE"*.

W.E.CO. STOCK OF OLD STYLE PARTS: There are no old style sets of parts. In general, old style parts shall not be furnished after new style parts become available.

APPLICATION TO APPARATUS IN THE FIELD: It is not practical to add sets of parts in the field; therefore, it is recommended that old style units be returned to the distributing house repair shops for updating as described under *"CHANGE"*. More detailed information regarding this matter will be furnished in a letter to the field.

APPLICATION AT W.E.CO. DIST. HOUSE REPAIR SHOPS: All 33-type teletypewriter-sets with serial numbers below 19090 which do not have either the red asterisk or a yellow dot adjacent to the serial number of the set shall be updated as described under *"CHANGE"*.