

**BELL SYSTEM PRACTICES**  
Teletypewriter and Data Stations

**SECTION P34.514**  
Issue 2, July, 1962  
AT&TCo Standard

## **28F, 28G-TYPE, 28LA, AND 28LB TRANSMITTER-DISTRIBUTOR UNITS LUBRICATION**

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### **1. GENERAL**

1.01 This section contains the detailed lubrication procedures for the 28F, 28G-type, 28LA, and 28LB transmitter-distributor units. The information herein, together with that in the section covering general information and routines for lubrication of teletypewriter apparatus, provides for the complete lubrication of these units.

1.02 This section is reissued to add lubrication procedures for the intermediate gear assembly and for string-switch mechanism (transfer contacts) (8-level unit) and to bring the section generally up to date.

1.03 The lubricants to be used and their methods of application are those given in the general lubrication section. The lubrication symbols used herein are the same as those given in the general section except that in this section the symbol O is used to mean only one drop of oil, O2 to mean two drops of oil, and G to mean that a thin film of grease should be applied at the points indicated.

1.04 Lubrication of the apparatus before it is placed in service should be governed by the principles given in the section covering preparation of teletypewriter apparatus for installation. After a few weeks in operation, the unit should

\*Common to 5-level and 8-level units, unless otherwise indicated.

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ordinarily be relubricated to make sure that all the specified points have received lubricant. Thereafter, because of varying conditions at each station, the unit should be relubricated as often as specified by local instructions. The following lubrication schedule may be used as a guide.

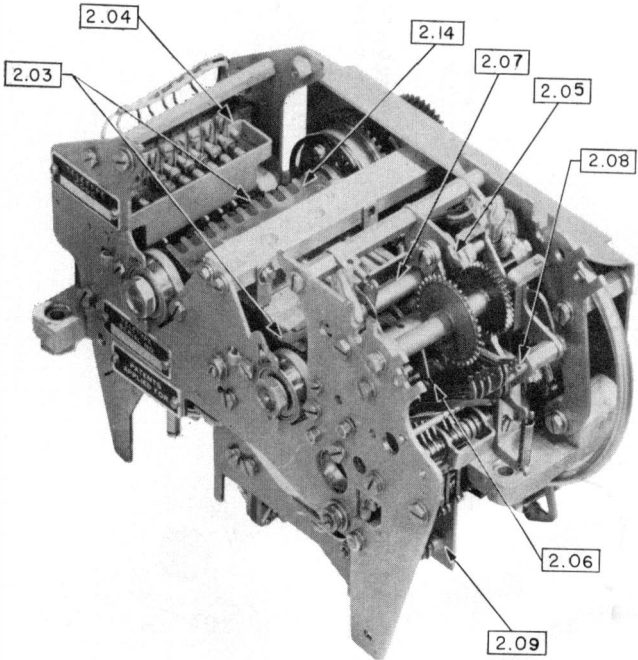
<u>Operating Speed (Words per Minute)</u>	<u>Lubrication Interval (Whichever Occurs First)</u>
60	3000 hours or 1 year
75	2400 hours or 9 months
100	1500 hours or 6 months

**Note:** On the 8-level transmitter-distributor unit, the clutch felt washers should be saturated with oil before the unit is placed in service and resaturated after every 500 hours of operation.

1.05 Unless otherwise indicated, the lubrication procedures in Part 2 of this section are common to both the 5-level and the 8-level transmitter-distributor units.

## 2. PARTS TO BE LUBRICATED

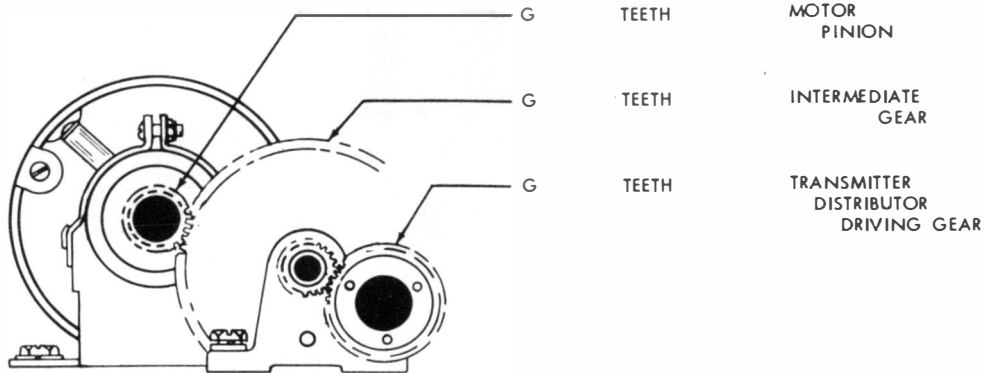
2.01 Distributor- and Sensing-shaft Assemblies, Feed-pawl Mechanism, Tape-out and Control Mechanism, etc.  
(Top View)



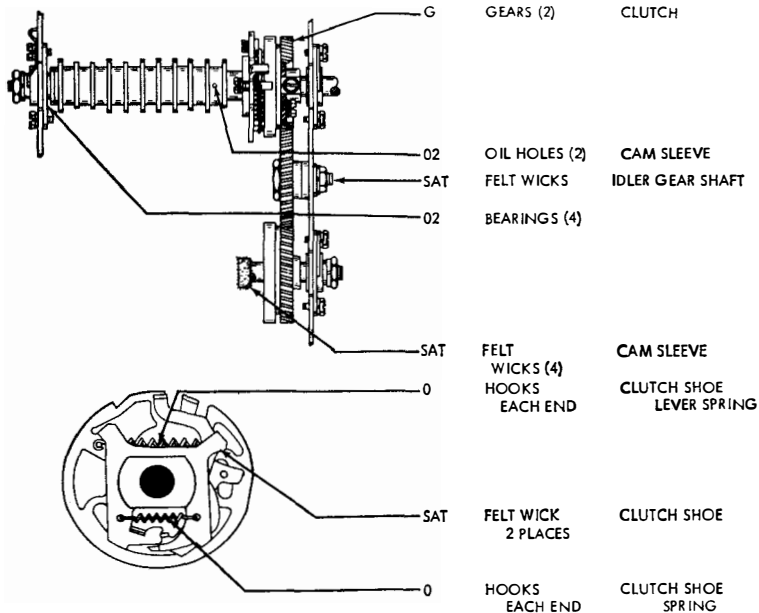
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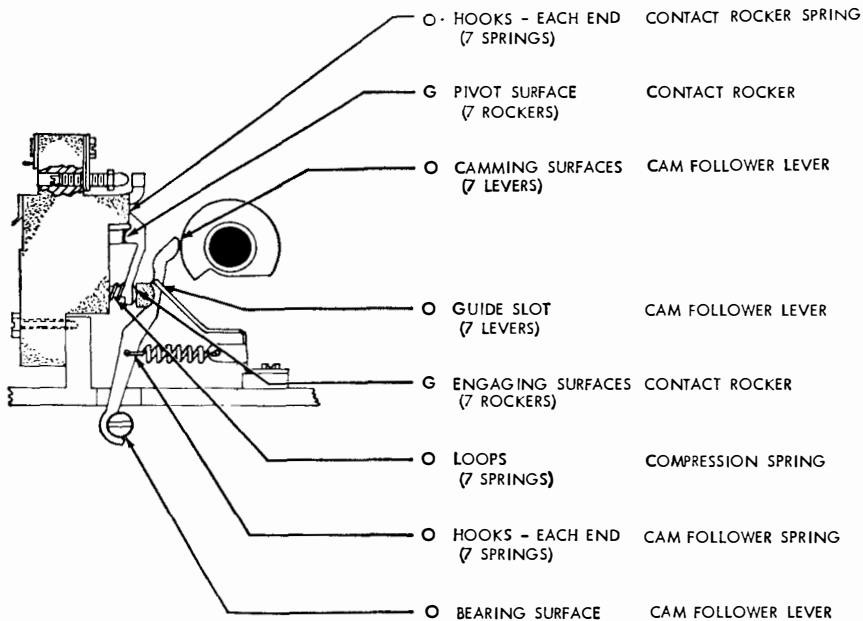
## 2.02 Intermediate Gear Assembly



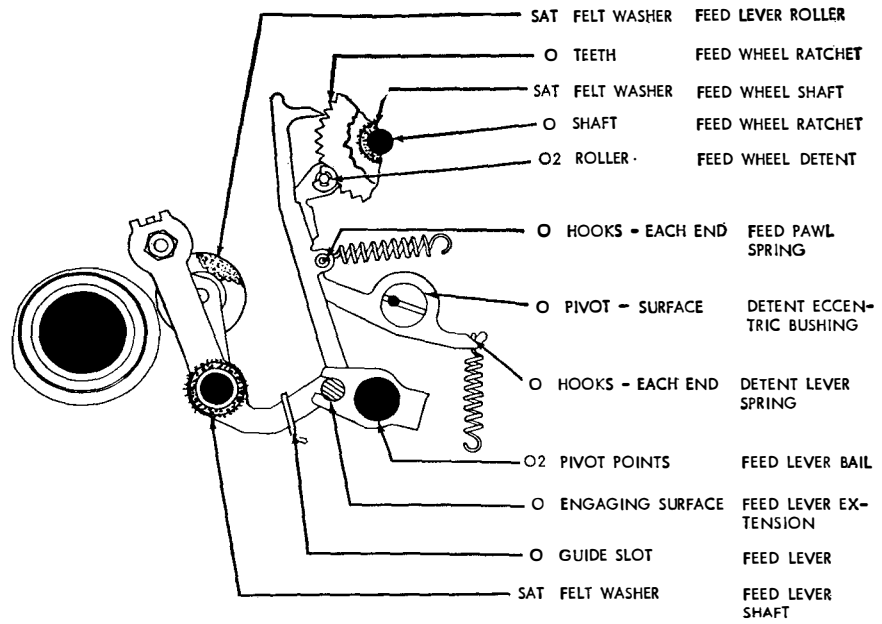
## 2.03 Distributor- and Sensing-shaft Assemblies



## 2.04 Distributor-contact Mechanism



## 2.05 Feed-pawl Mechanism



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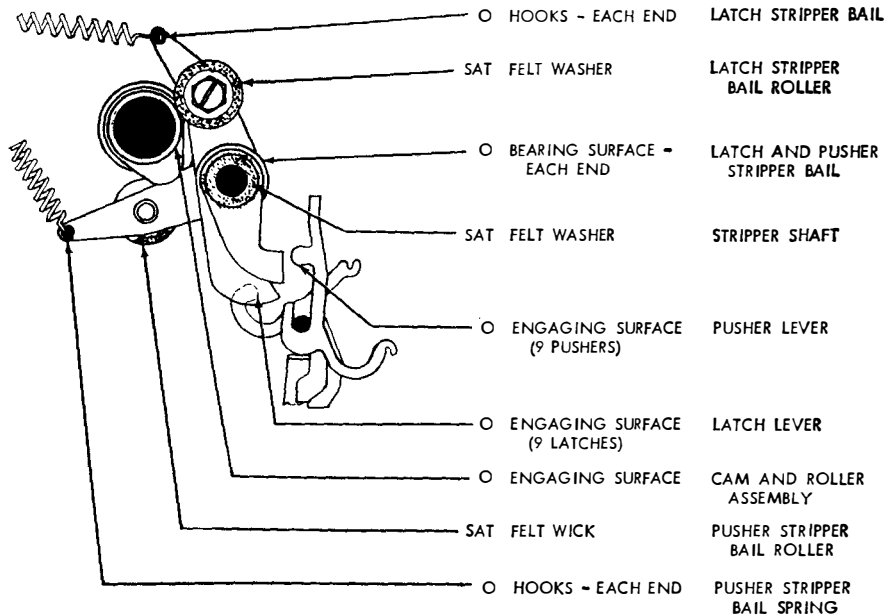
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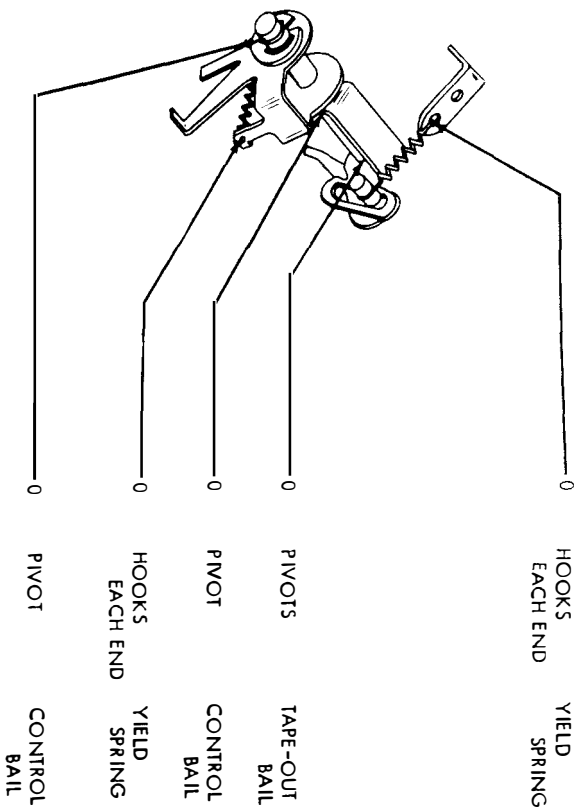
DISTRIBUTOR  
UNIT

## 2.06 Latch- and Pusher-bail Stripper





2.07 Tape-out and Control Mechanism

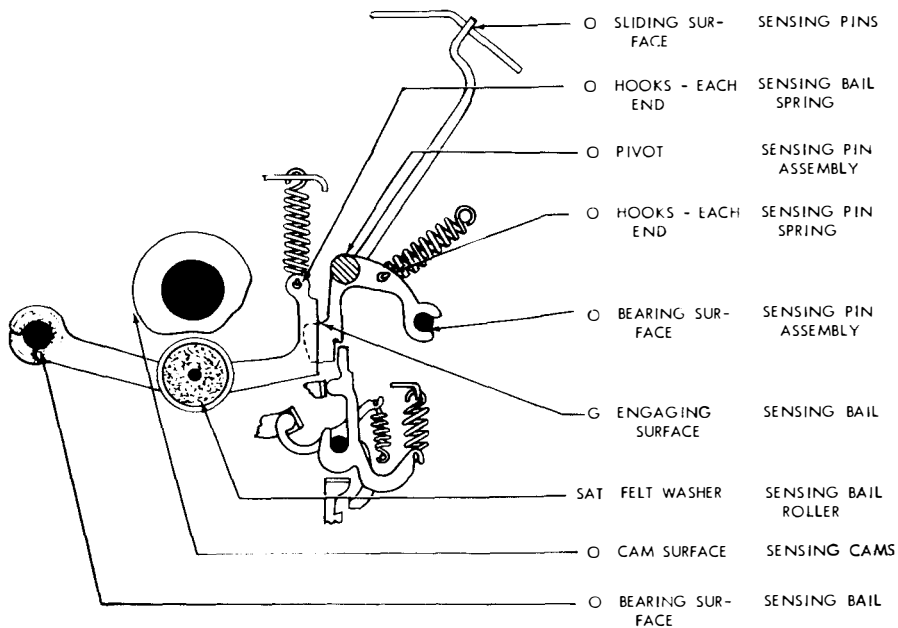


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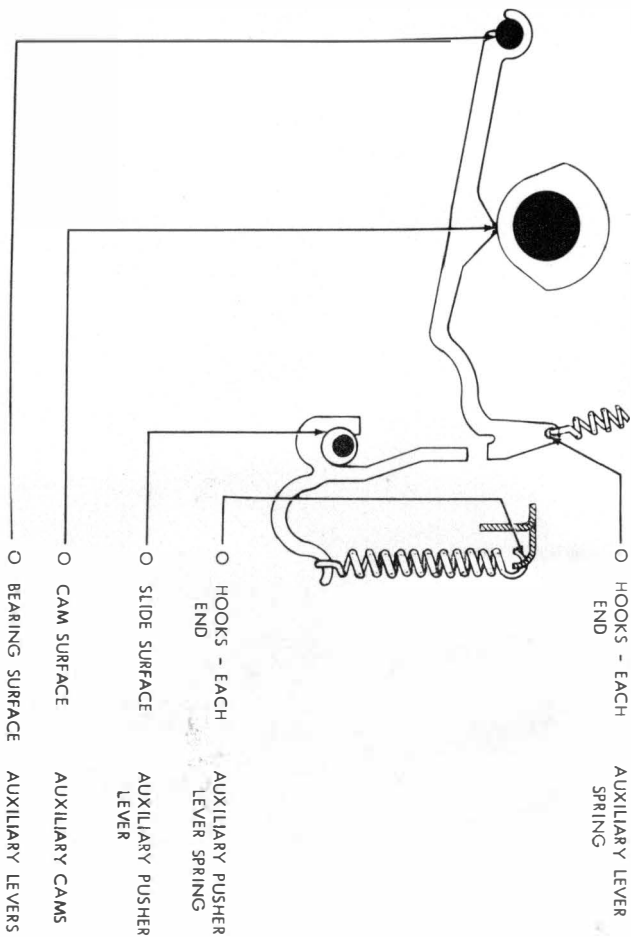
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## 2.08 Tape-sensing Mechanism



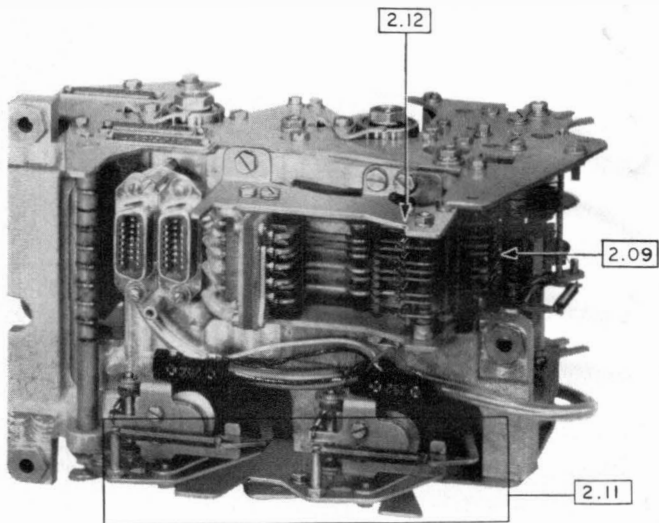
2.09 Pusher Levers



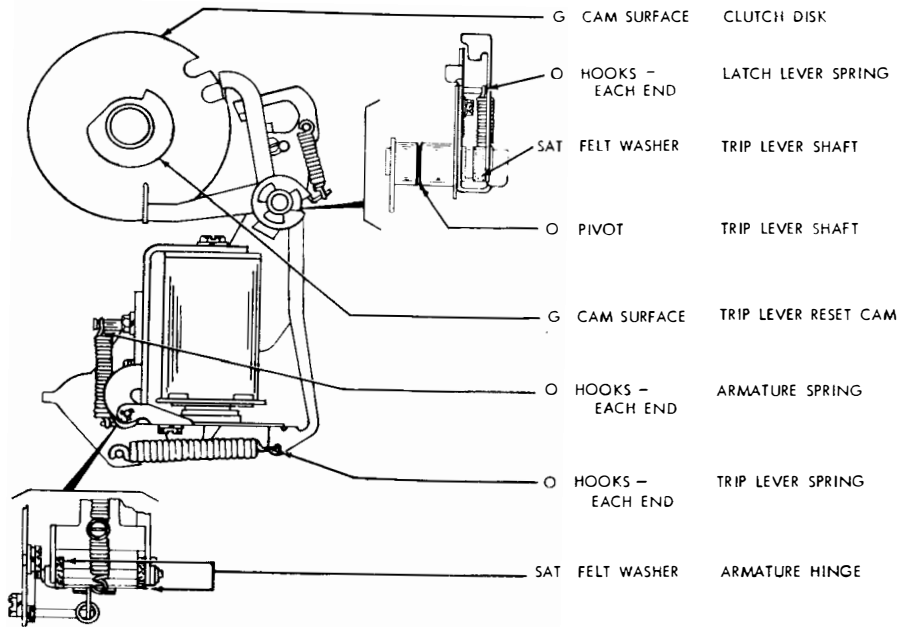
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### 2.10 Distributor- and Sensing-shaft Trip Mechanisms and Storing-switch Mechanism (Bottom View)



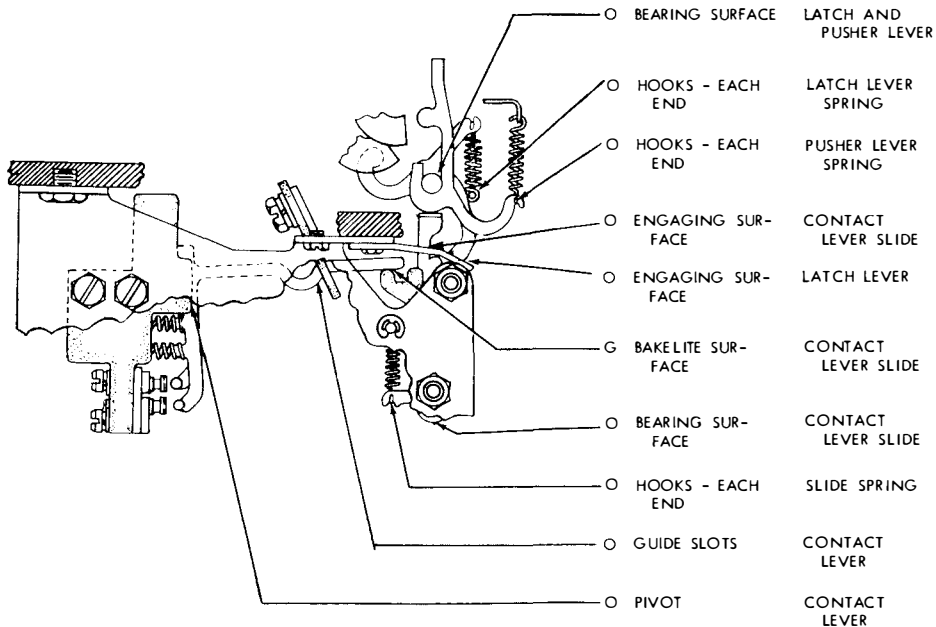
## 2.11 Distributor- and Sensing-shaft Trip Mechanisms



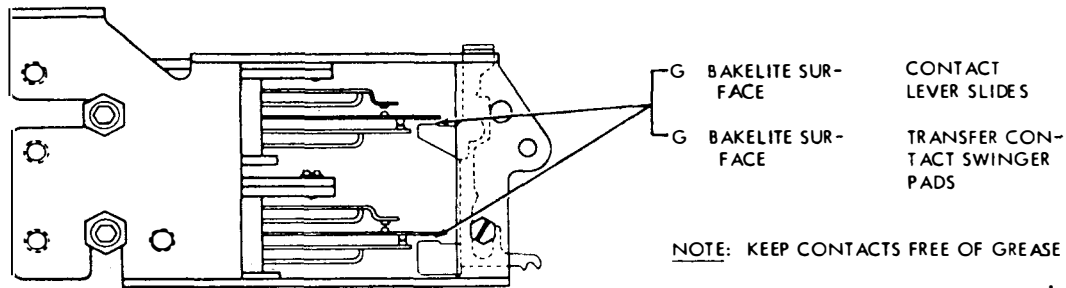
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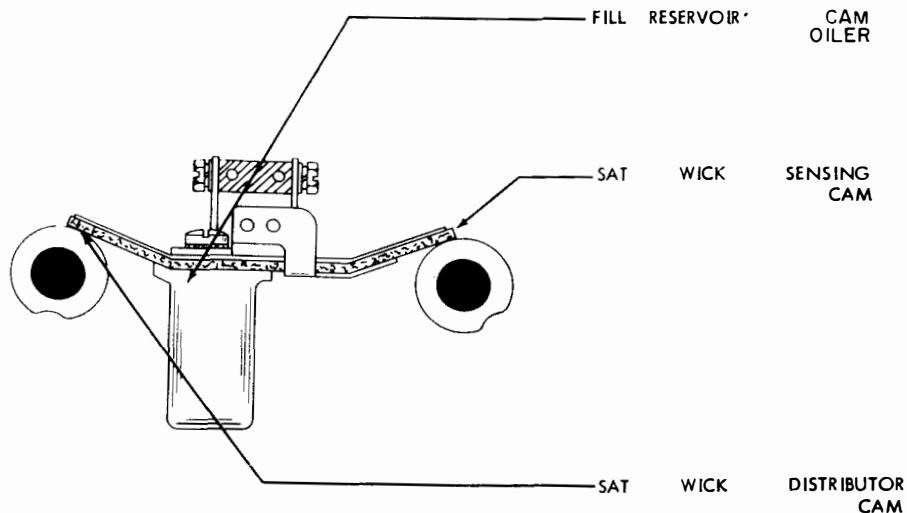
## 2.12 Storing-switch Mechanism (Nontransfer Contacts) (5-level Unit)



### 2.13 Storing-switch Mechanism (Transfer Contacts) 8-level Unit



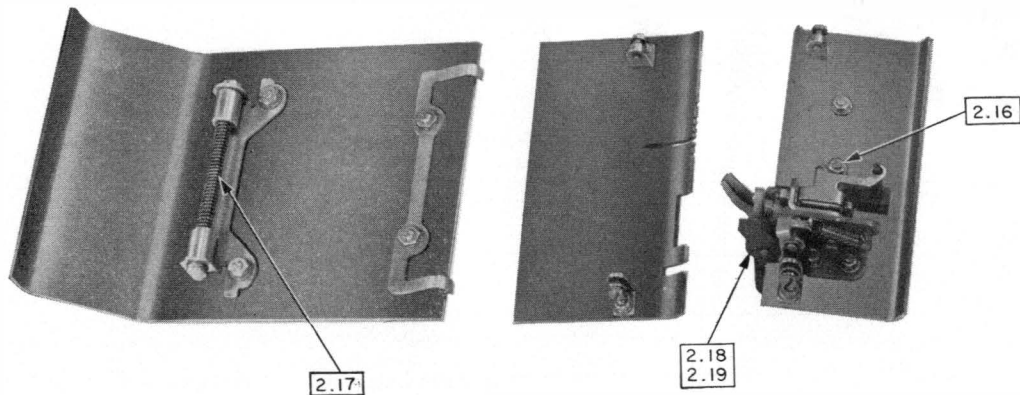
## 2.14 Oil Reservoir



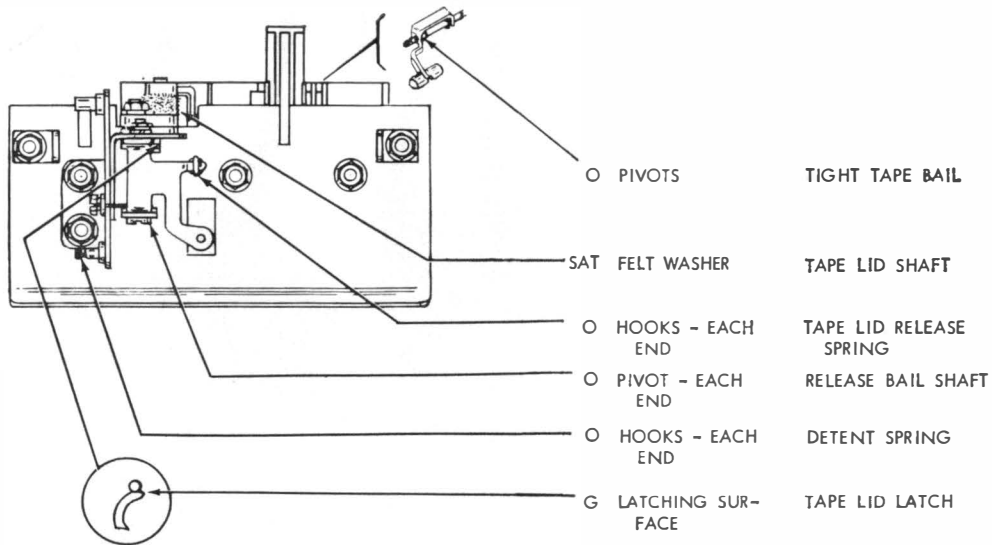
NOTE: THE OIL DEPTH SHALL NOT EXCEED 7/8 INCH. (THE TP96364, 0.010 - INCH THICK, FLAT GAUGE FROM THE TP117781 SET OF GAUGES IN THE TOOL KIT MAY BE USED AS A DIP STICK TO DETERMINE THE OIL DEPTH.)



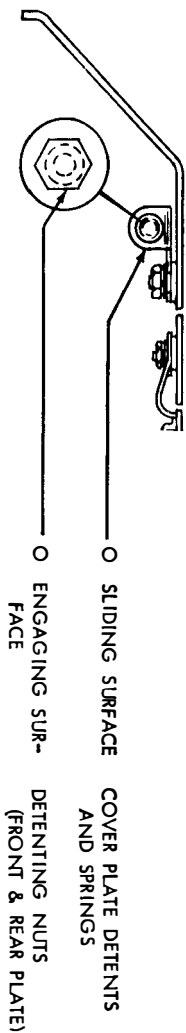
2.15 Tape-guide Plate, Cover Plate, Tight-tape Slidearm Assembly, and Start-Stop Slidearm Assembly (Bottom View)



## 2.16 Tape-guide Plate



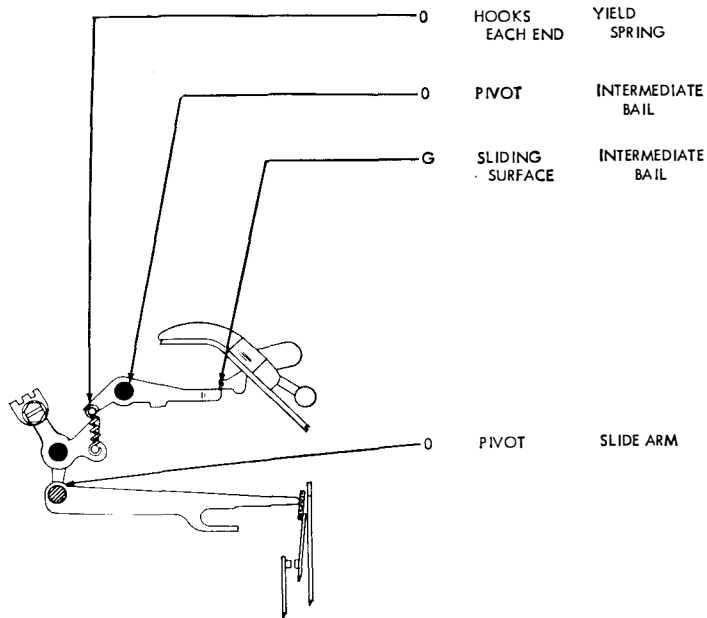
2.17 Cover Plate (5-level Unit)



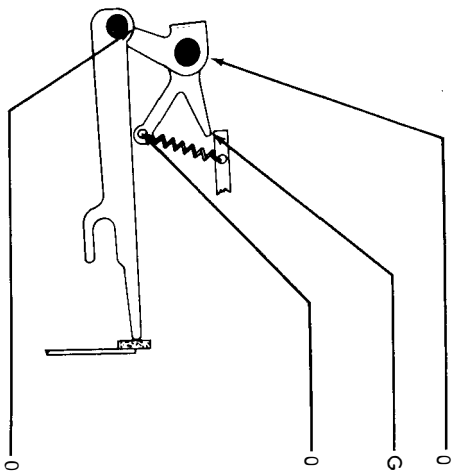
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## 2.18 Tight-tape Slidearm Assembly

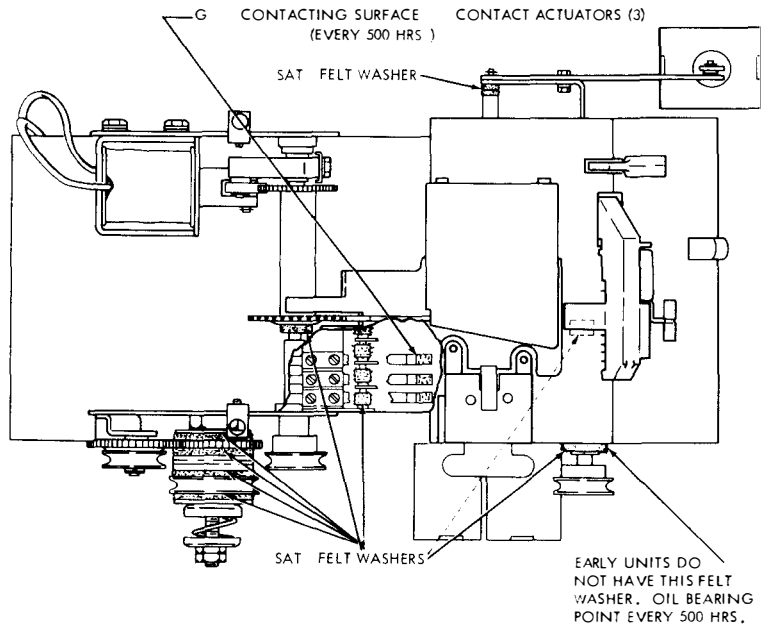


2.19 Start-Stop Slidearm Assembly



- 0 PIVOT
- G YIELD BALL
- 0 SLIDING SURFACE
- 0 HOOKS EACH END
- 0 YIELD SPRING
- 0 PIVOT
- 0 SLIDE ARM

## 2.20 Tape Pullback, Tape Runout, and Additional Tight-tape Mechanisms (8-level Unit) ↵



### **3. ASSOCIATED BELL SYSTEM PRACTICES**

3.01 Other Bell System Practices that may be required in connection with this section are listed in Section P34.001, Alphabetical Index of 28-type Equipment, Bell System Practices, and Associated 28 ASR Station Drawings.

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## 28F, 28G, 28G-1, AND 28LA TRANSMITTER-DISTRIBUTOR UNITS LUBRICATION

### 1. GENERAL

1.001 This addendum supplements Section P34.514, Issue 1.

1.002 This addendum is issued to include the lubrication for the 28LA transmitter-distributor unit and to add the code of this unit to the section title, to provide a note regarding the depth to which the oil reservoirs should be filled, and to remove information (1.04 and 1.05 of the section) that is covered in the general lubrication section.

1.003 Since certain mechanisms of the 28LA transmitter-distributor unit are similar to those of the 28F, 28G, or 28G-1 transmitter-distributor unit, many of the lubrication procedures are generally the same. To avoid duplication of information on these common routines which are already given in the section proper, this addendum is arranged so as to provide a list of the common lubrication procedures, the sequence in which they should be performed on a 28LA transmitter-distributor unit, and a reference to the specific paragraph which contains the particular lubrication procedure.

The following changes apply to Part 1 of the section:

- (a) 1.01, 1.02, and 1.03—revised
- (b) 1.04 and 1.05—omitted

1.01 This section contains the detailed lubrication procedures for the 28F, 28G, 28G-1, and 28LA transmitter-distributor units. The information herein, together with that in the section entitled Teletypewriter Apparatus, Lubrication, General Information and Routines, provides for the complete lubrication of these units.

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1.02 The lubricants to be used and their methods of application are those given in the general lubrication section. The lubrication symbols used herein are the same as those in the general section except that the symbol O is used in this practice to mean only one drop of oil, O2 to mean two drops of oil, and G to mean a thin film of grease should be applied at the points indicated.

1.03 Lubrication of the apparatus before it is placed in service should be governed by the principles given in the section entitled Preparation of Teletypewriter Apparatus for Installation. After a few weeks in operation, the unit should ordinarily be relubricated to make sure that all the specified points have received lubricant. Thereafter, because of varying conditions at each station, the unit should be relubricated as often as specified by local instructions. The following lubrication schedule may be used as a guide.

<u>Operating Speed</u>	<u>Lubrication Interval</u>
(Words per Minute)	(Whichever Occurs First)
60	3000 hours or 1 year
75	2400 hours or 9 months
100	1500 hours or 6 months

**Note:** On the 28LA transmitter-distributor unit, the clutch felt washers should be saturated with oil before the unit is placed in service and resaturated after every 500 hours of operation.

## 2. PARTS TO BE LUBRICATED

The following changes apply to Part 2 of the section:

(a) 2.01.1 and 2.18—added

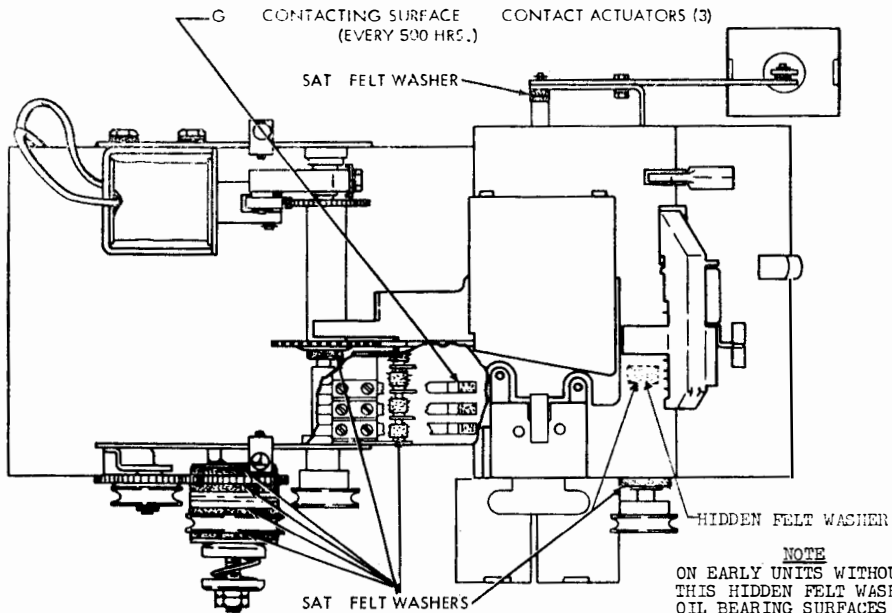
2.01.1 The lubrication procedures for the following parts, in addition to those in 2.18, apply to the 28LA transmitter-distributor unit.

<u>Lubrication Sequence</u>	<u>Part To Be Lubricated</u>	<u>Covered In (See Note 1)</u>
<b>Note 1:</b> These paragraphs are in the section proper unless otherwise indicated.		
(1)	Intermediate Gear Assembly	BSP P34.540, Issue 1, 2.02
(2)	Distributor- and Sensing-shaft Assemblies	2.02
(3)	Distributor-contact Mechanism	2.03
(4)	Feed-pawl Mechanism	2.04
(5)	Latch- and Pusher-bail Stripper	2.05
(6)	Tape-out and Control Mechanism	2.06
(7)	Tape-sensing Mechanism	2.07
(8)	Pusher Levers	2.08
(9)	Distributor- and Sensing-shaft Trip Mechanisms	2.10
(10)	Oil Reservoir	2.12 & Note 2

**Note 2:** The oil depth shall not exceed  $\frac{7}{8}$  inch. (The TP96364, 0.010-inch thick, flat gauge from the TP117781 set of gauges in the tool kit may be used as a dip stick to determine the oil depth.)

(11)	Tape-guide Plate	2.14
(12)	Tight-tape Slidearm Assembly	2.16
(13)	Start-stop Slidearm Assembly	2.17

2.18 Tape Pullback, Tape Runout, and Additional Tight-tape Mechanisms (28LA Transmitter-Distributor Unit)



NOTE  
ON EARLY UNITS WITHOUT  
THIS HIDDEN FELT WASHER,  
OIL BEARING SURFACES  
EVERY 500 HOURS.