

35 TYPING UNIT (LP)

LUBRICATION

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Spacing drum feed mechanism	23	1. GENERAL	
Spacing drum mechanism	22	1.01 This section provides lubrication for the	
Spacing mechanism	30, 31	35 typing unit. It is reissued to include	
Sprocket feed paper mechanism	36	lubrication for the paper jam alarm, recent	
Stripper blade mechanism	18	engineering information and to update general	
Stunt box area	16	format. Since it is an extensive revision, mar-	
Stunt box mechanism	17	ginal arrows used to indicate changes have been	
Trip shaft mechanism	29	omitted.	

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1.02 Lubricate the 35 typing unit as directed in this section. The line drawings indicate points to be lubricated and the type and quantity of lubricant to be used. Figures 1 and 2 illustrate the general areas of lubrication on the friction feed unit and Figure 3 shows the lubrication areas on the sprocket feed unit. Lubricate the typing unit prior to placing it in service. Relubricate after a few weeks to make sure that all points have received proper lubrication. Thereafter, lubricate the typing unit at intervals of 1500 hours or six months, whichever occurs first.

1.03 Use KS7470 oil at all locations where the use of oil is indicated. Use KS7471 grease at all locations where the use of grease is indicated.

1.04 Saturate all spring wicks and felt oilers. Thoroughly lubricate the friction surfaces of all moving parts. However, avoid over-lubrication which permits oil or grease to drip or be thrown on other parts. Take special care to prevent any oil or grease from getting between the selector armature and its magnetic pole faces. Keep all electrical contacts free of oil and grease.

1.05 Apply a thin film of grease to the teeth of the range scale knob assembly (knob and gear).

1.06 Apply a thick film of grease to all gears and the spacing trip lever bail cam plate.

1.07 Apply oil to all cams, including the camming surfaces of each clutch disc.

1.08 Grease the clutch shoe lever spring loops and completely saturate the internal mechanism of the clutch assembly with oil.

1.09 Apply a thin film of oil around the outer periphery of the dashpot cup and retainer. Avoid excessive lubrication that will obstruct the dashpot parts.

1.10 The photographs serve as a guide to mechanism locations on the unit. They are also keyed to the paragraph numbers of line drawings of particular mechanisms. Parts in the line drawings are shown in an upright position unless otherwise specified. References to left, right, top, bottom, front, rear, etc, apply to the unit in its normal operating position as viewed from the operator's position in front of the unit.

1.11 The illustration symbols indicate the following lubrication directions.

<u>Symbol</u>	<u>Meaning</u>
O1	Apply 1 drop of oil.
O2	Apply 2 drops of oil.
O3	Apply 3 drops of oil, etc.
G	Apply thin film of grease.
SAT	Saturate (felt oilers, washers, wicks) with oil.

Note: During each lubrication period, check the following adjustments in Section 574-220-700TC.

1. Printing Carriage Position
2. Printing Hammer Bearing Stud
3. Printing Hammer Stop Bracket (Also see note following this adjustment.)
4. Lower Draw Wire Rope
5. Dashpot Vent Screw (Check Dashpot Transfer Slide for ease of movement.)

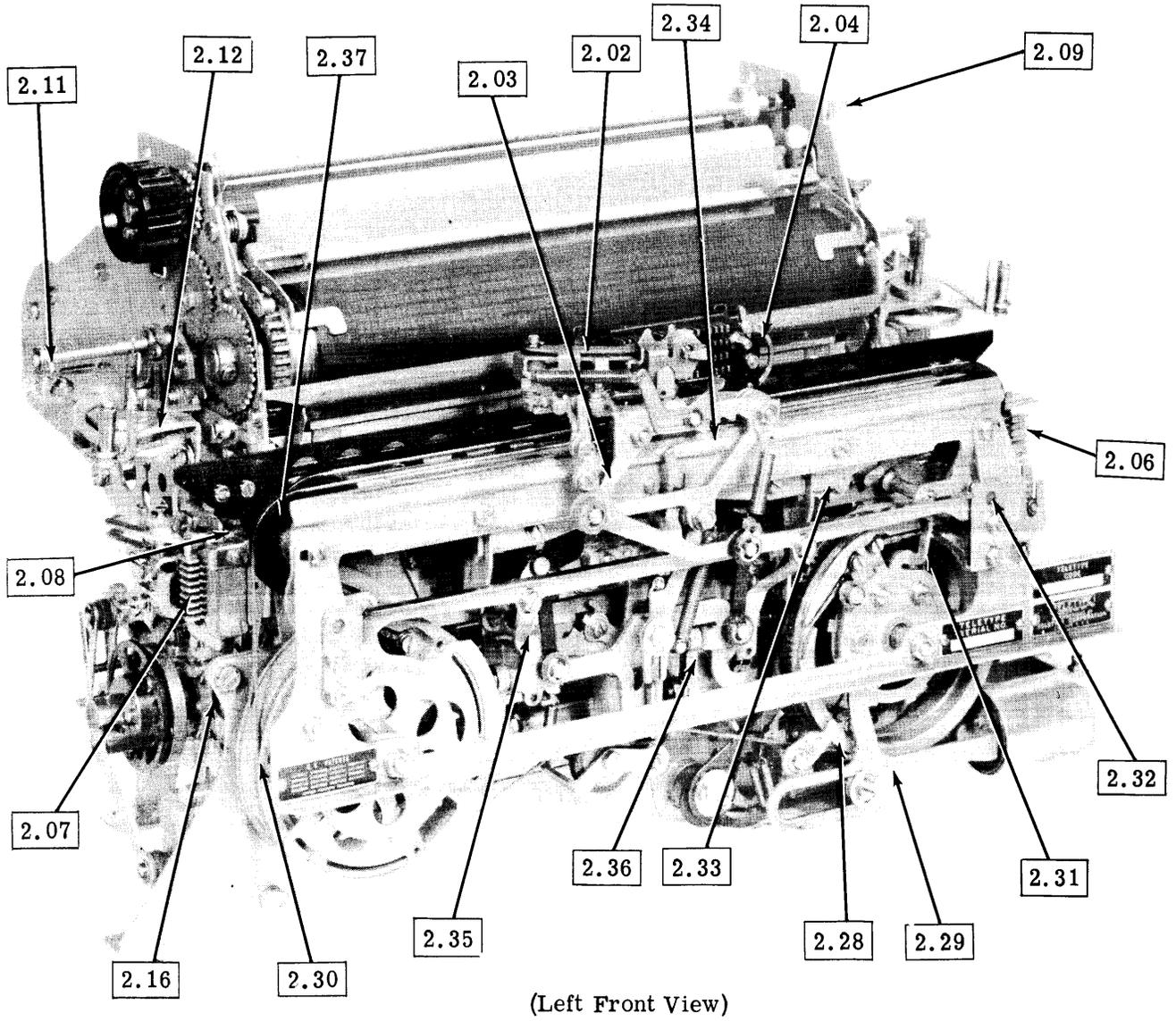


Figure 1 - 35 Typing Unit, Friction Feed

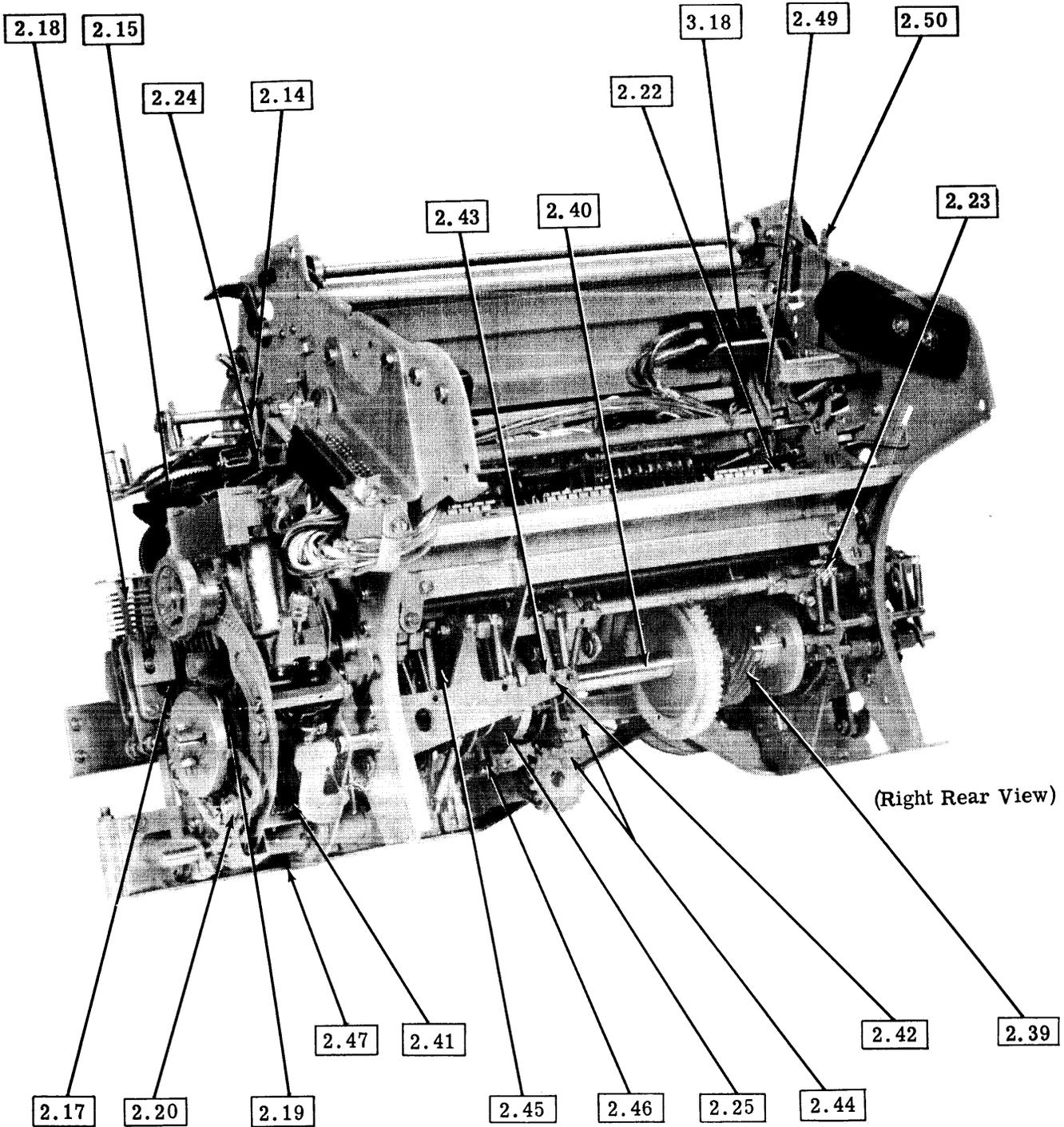
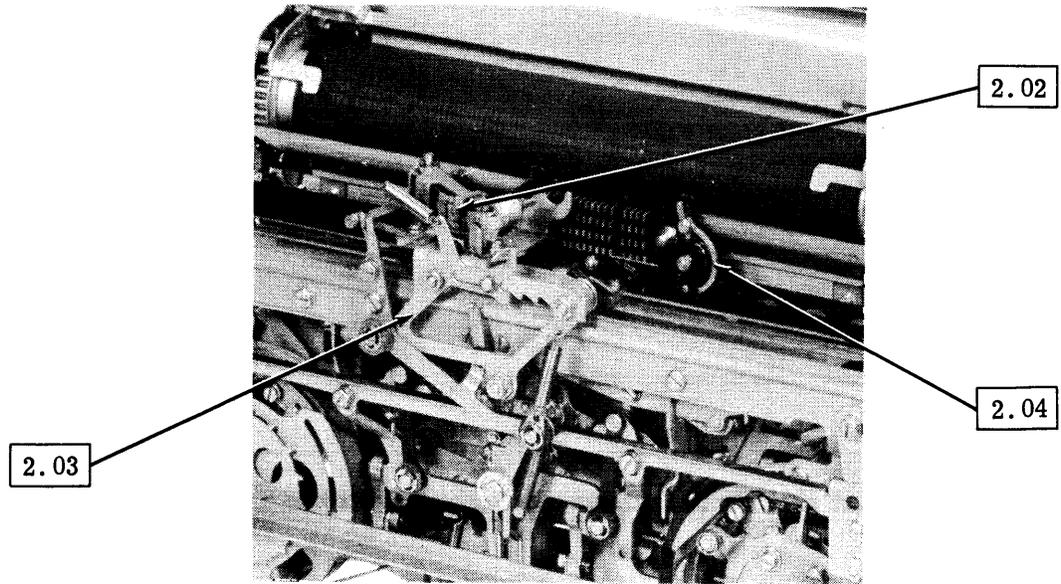


Figure 2 - 35 Typing Unit, Friction Feed

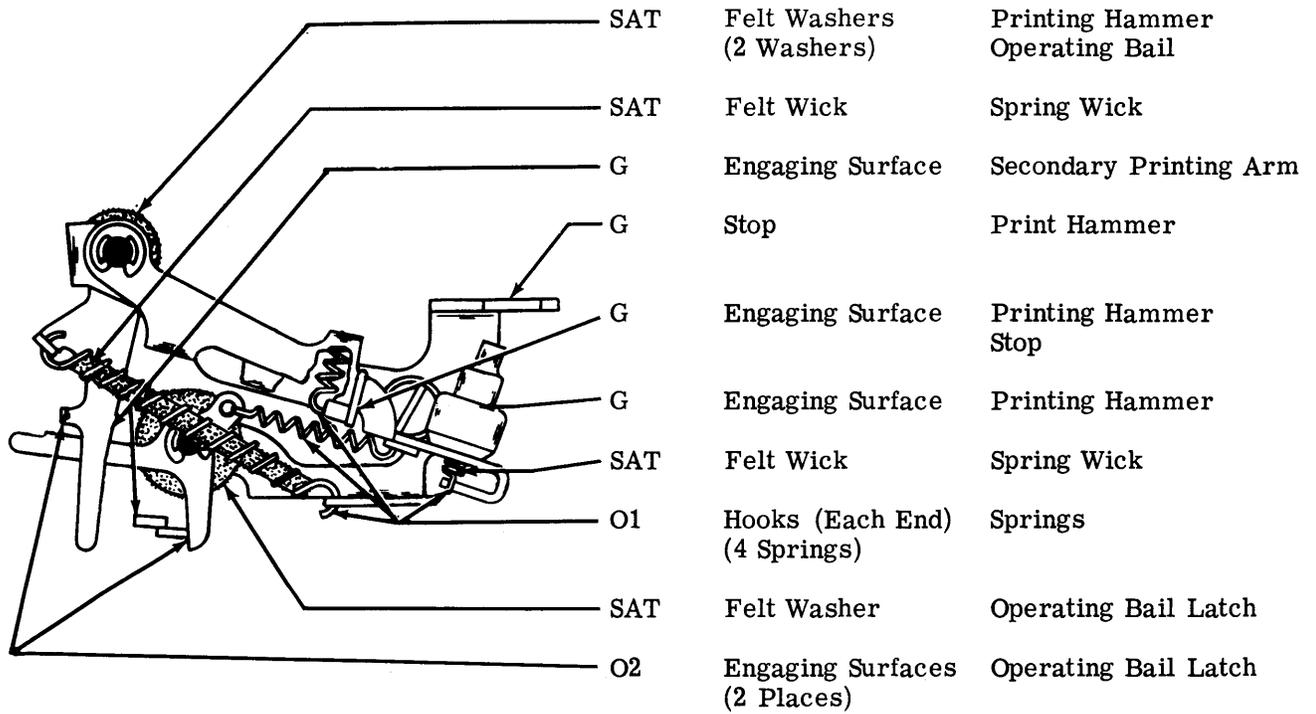
2. BASIC UNIT

2.01 Printing Area



(Front View)

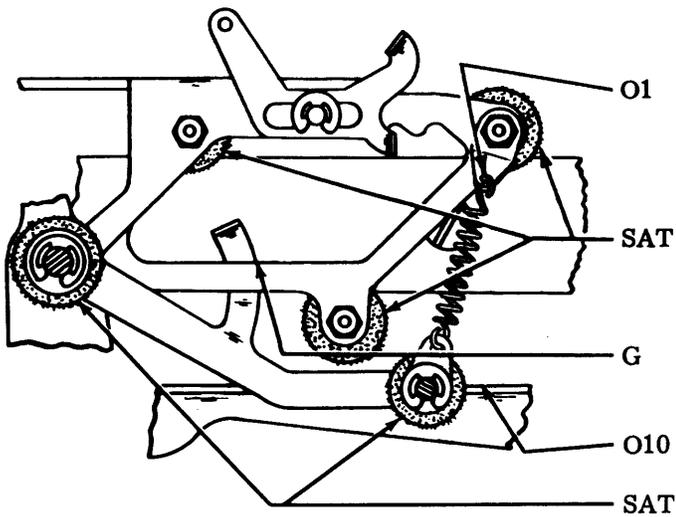
2.02 Printing Mechanism



(Top View)

SECTION 574-220-701TC

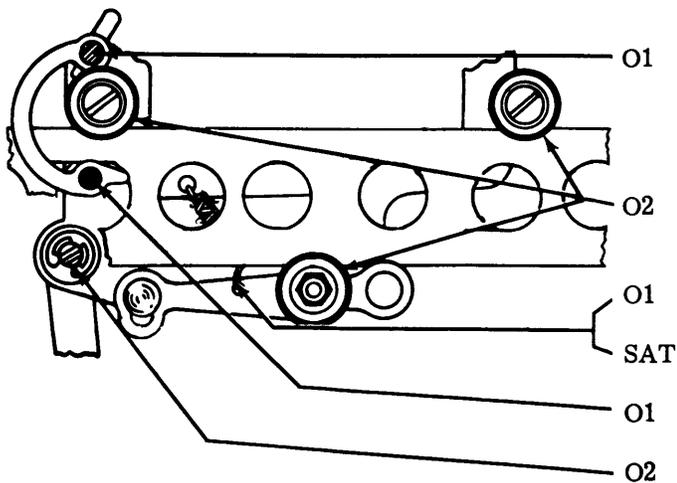
2.03 Printing Mechanism (continued)



(Front View)

- | | | |
|-----|-----------------------------|------------------------------|
| O1 | Hook (Each End) | Spring |
| SAT | Felt Washers
(3 Washers) | Printing Carriage
Rollers |
| G | Guiding Surface | Printing Arm
Extension |
| O10 | Tracking Surface | Printing Track |
| SAT | Felt Washers
(2 Washers) | Printing Arm |

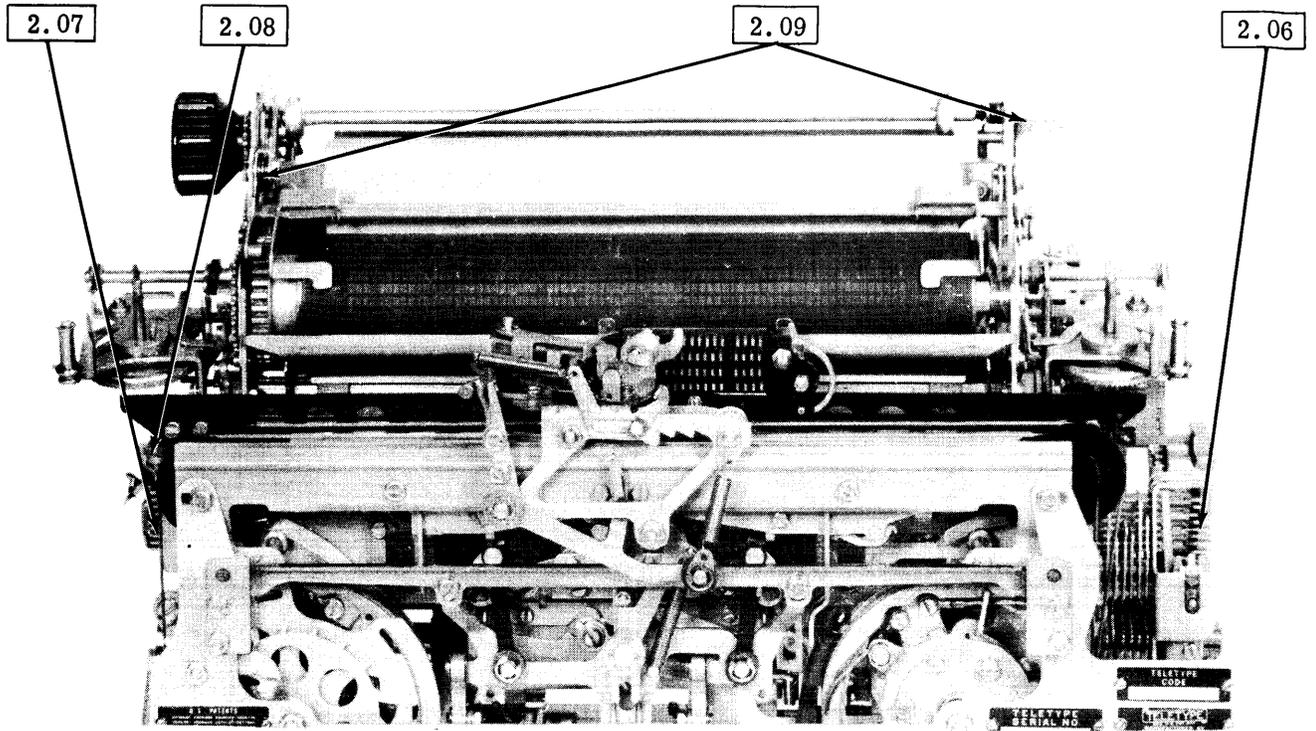
2.04 Typebox Carriage Mechanism



(Rear View)

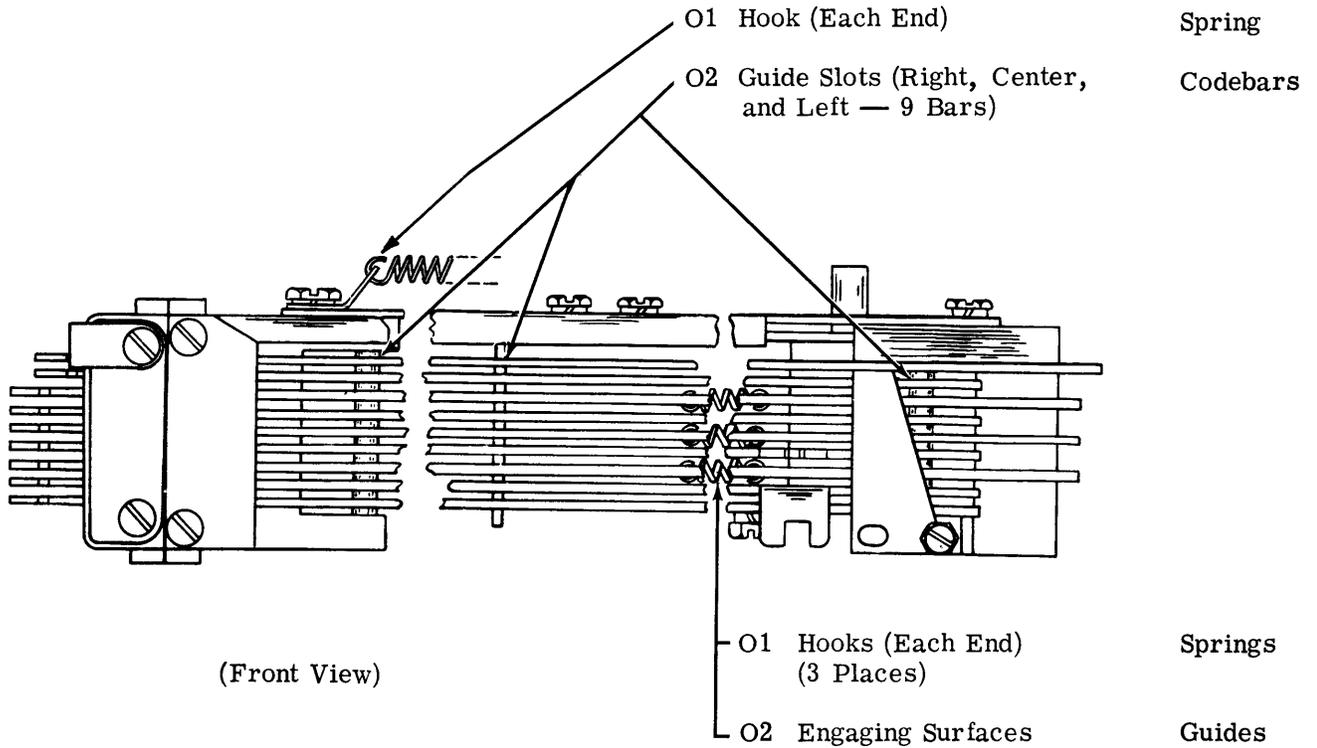
- | | | |
|-----|-------------------------|-----------------------------|
| O1 | Bearing Surface | Typebox Latch
Toggle |
| O2 | Bearings
(3 Rollers) | Typebox
Carriage Rollers |
| O1 | Hook (Each End) | Spring |
| SAT | Felt Wick | Spring |
| O1 | Bearing Surface | Typebox Latch |
| O2 | Bearing Surface | Typebox
Carriage Link |

2.05 Code and Print Areas



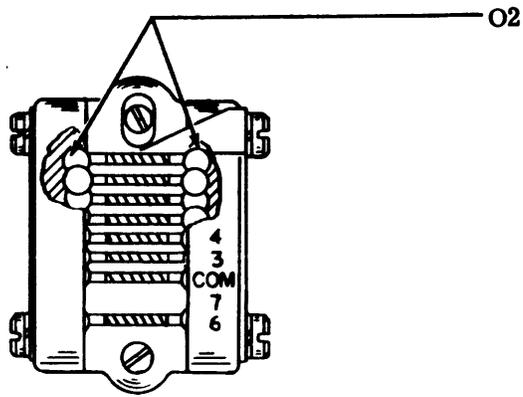
(Front View)

2.06 Codebar Mechanism



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2.07 Codebar Detents

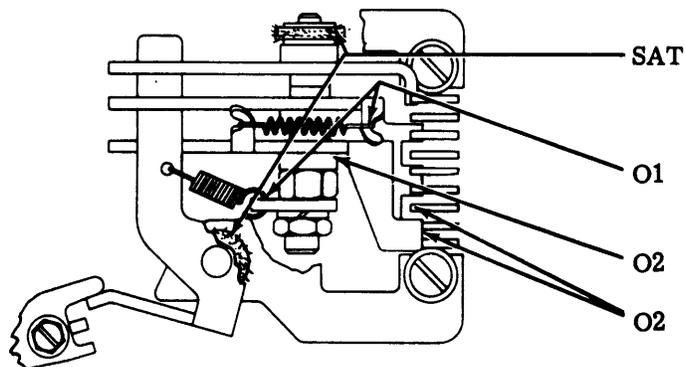


(Left Side View)

Bearing Balls

Codebar Detent

2.08 Print Suppression Mechanism



(Left Side View)

**Felt Washers
(3 Washers)**

**Eccentric Post
and Blocking
Bail Blade**

**Hooks (Both Ends)
(2 Springs)**

Springs

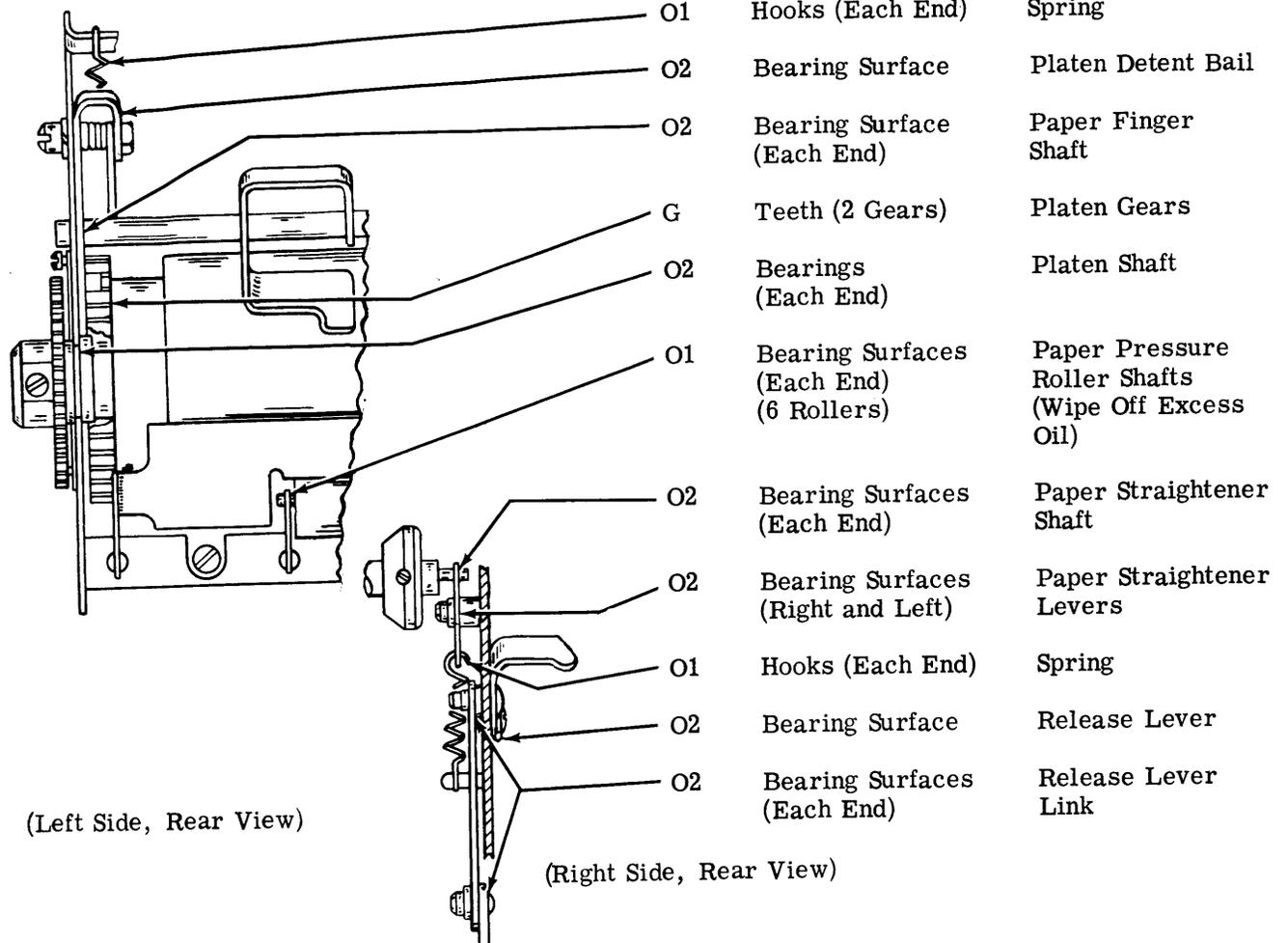
Bearing Surface

Eccentric Post

**Engaging Surfaces
(4 Places)**

**Blocking
Levers**

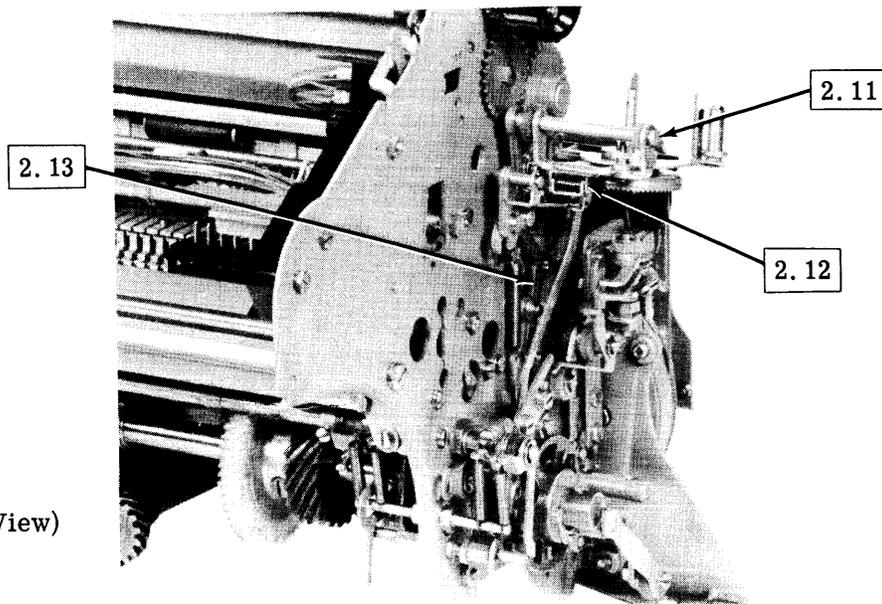
2.09 Paper Feed Mechanism (Friction Feed)



(Left Side, Rear View)

(Right Side, Rear View)

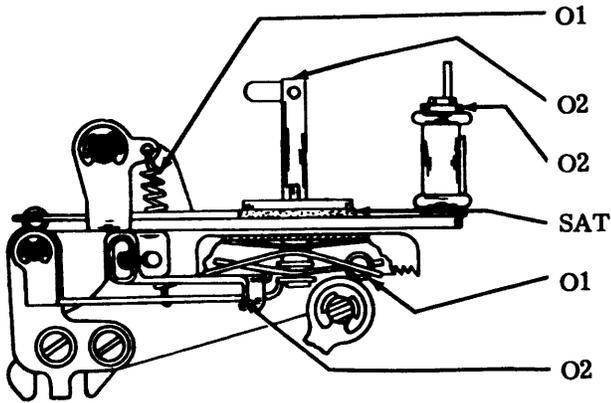
2.10 Ribbon Area



(Left Rear View)

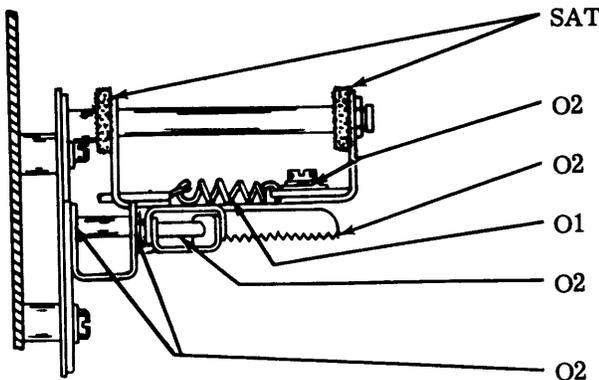
SECTION 574-220-701TC

2.11 Ribbon Feed Mechanism



(Left Side View)

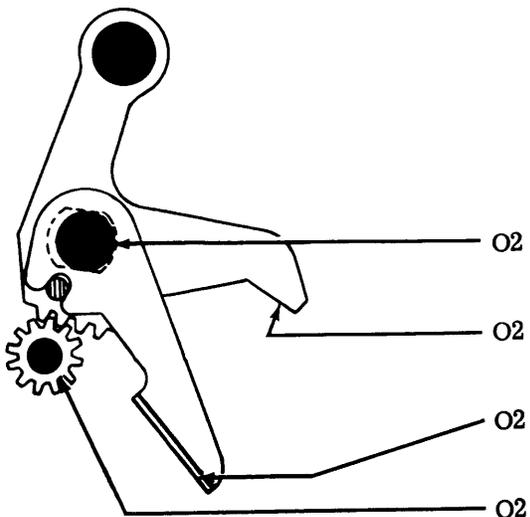
- | | | |
|-----|------------------|-----------------------------|
| O1 | Hooks (Each End) | Ribbon Feed Lever Spring |
| O2 | Bearing Surface | Ribbon Spool Toggle |
| O2 | Bearing Surface | Ribbon Roller Shaft |
| SAT | Felt Washer | Ribbon Spool Shaft |
| O1 | Hooks (Each End) | Ribbon Ratchet Wheel Spring |
| O2 | Engaging Surface | Ribbon Detent Lever |



(Rear View)

- | | | |
|-----|--------------------------|---------------------------|
| SAT | Felt Washers (2 Washers) | Ribbon Feed Lever Bail |
| O2 | Bearing Surface | Ribbon Reverse Lever |
| O2 | Teeth | Ribbon Ratchet Wheel |
| O1 | Hooks (Each End) | Spring |
| O2 | Engaging Surface | Ribbon Detent Lever Shaft |
| O2 | Bearing Surfaces | Ratchet Feed Lever Shaft |

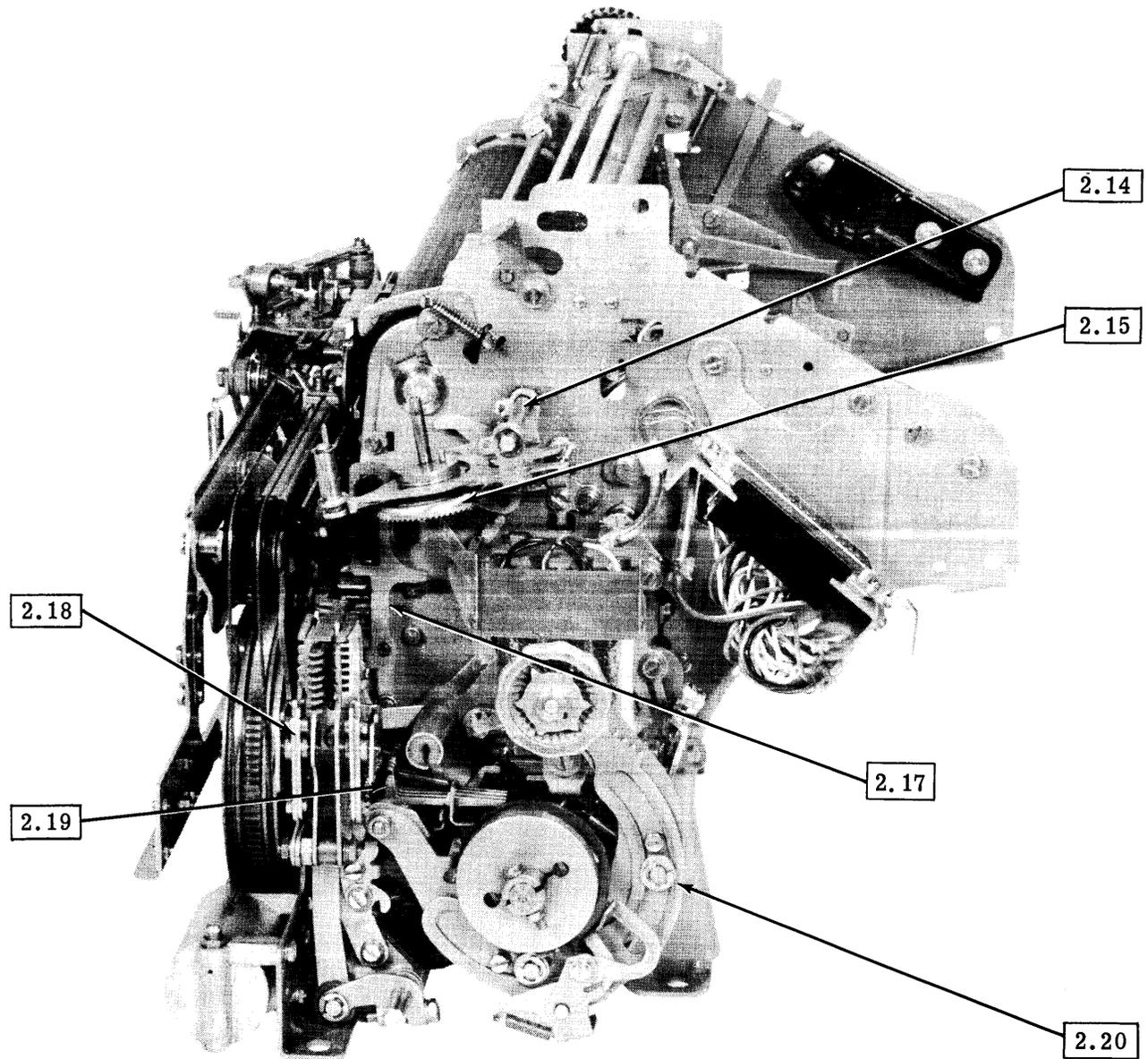
2.12 Ribbon Feed Mechanism (continued)



(Left Side View)

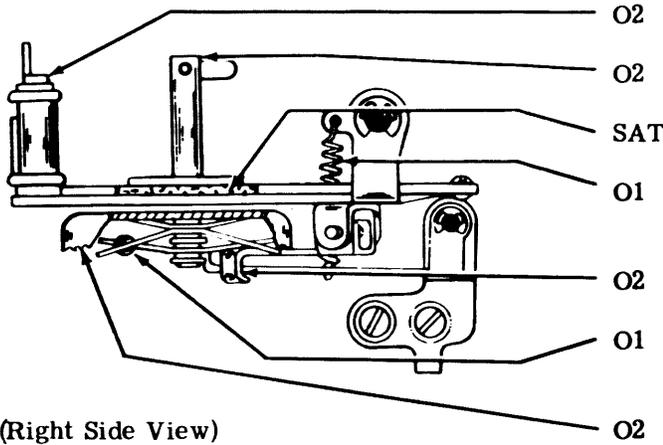
- | | | |
|----|------------------|--------------------------|
| O2 | Bearing Surface | Ribbon Reverse Lever |
| O2 | Engaging Surface | Ribbon Reverse Lever |
| O2 | Engaging Surface | Ribbon Reverse Lever |
| O2 | Teeth | Ribbon Reverse Spur Gear |

2.13 Positioning Area

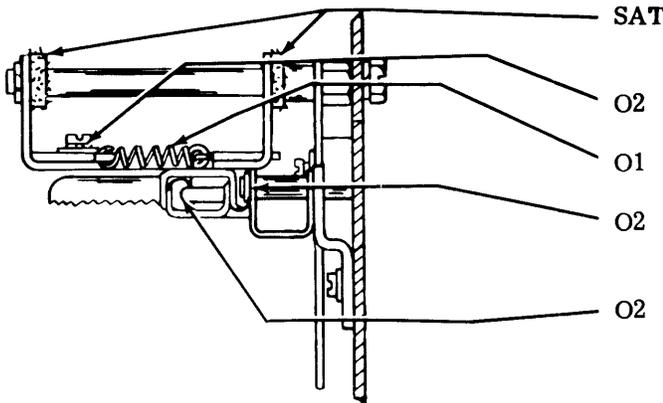


(Right Side View)

2.14 Ribbon Feed Mechanism (continued)

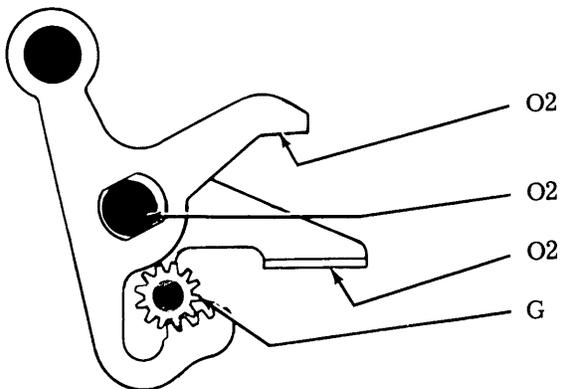


- | | | |
|-----|------------------|-----------------------------|
| O2 | Bearing Surface | Ribbon Roller Shaft |
| O2 | Bearing Surface | Ribbon Spool Toggle |
| SAT | Felt Washer | Ribbon Spool Shaft |
| O1 | Hooks (Each End) | Ribbon Feed Lever Spring |
| O2 | Engaging Surface | Ribbon Detent Lever |
| O1 | Hooks (Each End) | Ribbon Ratchet Wheel Spring |
| O2 | Teeth | Ribbon Ratchet Wheel |



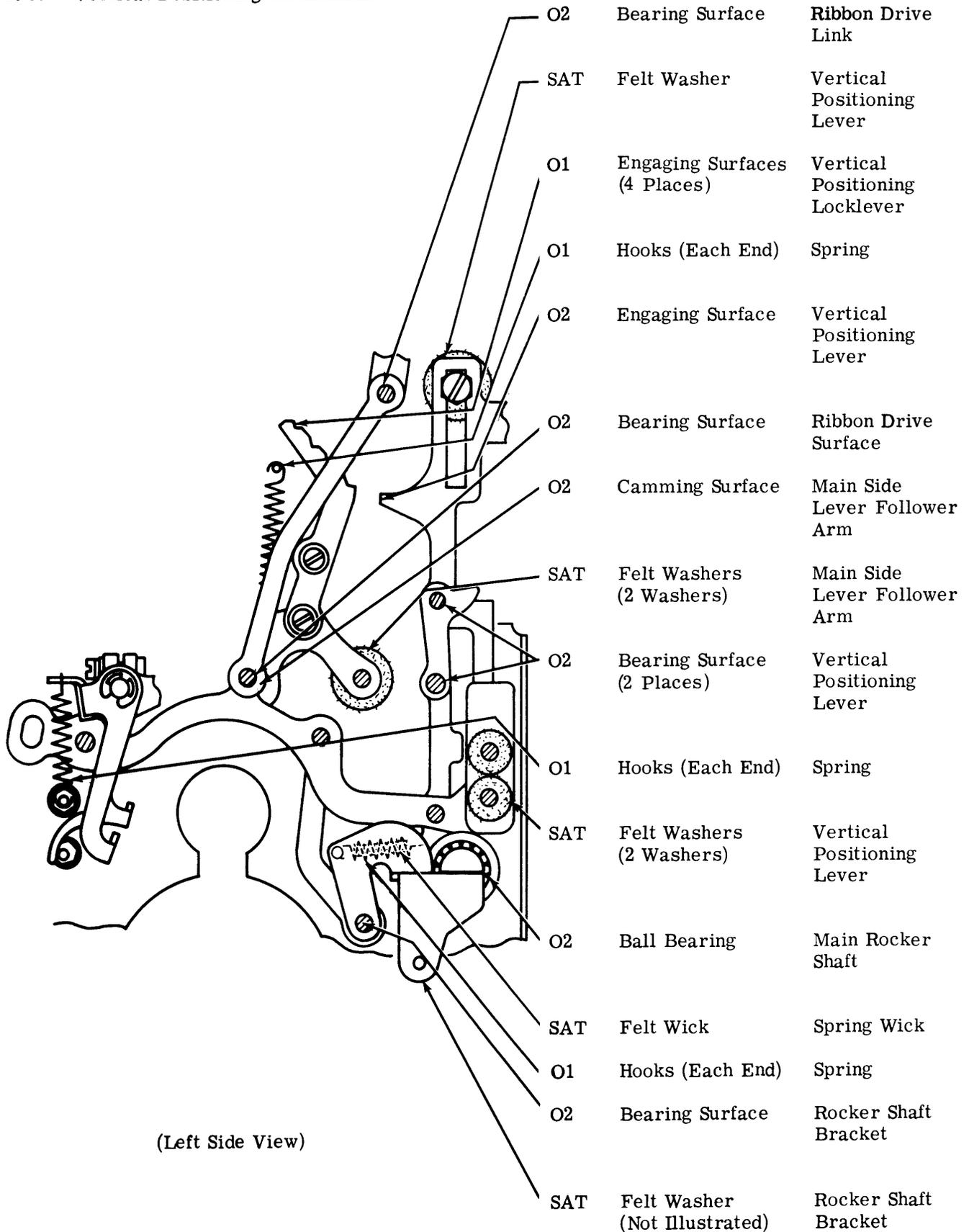
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|-----|----------------------------|---------------------------|
| SAT | Felt Washers (2 Washers) | Ribbon Feed Lever Bail |
| O2 | Bearing Surface | Ribbon Reverse Lever |
| O1 | Hooks (Each End) | Spring |
| O2 | Bearing Surfaces | Ratchet Feed Lever Shaft |
| O2 | Bearing Surface (2 Places) | Ribbon Detent Lever Shaft |

.15 Ribbon Feed Mechanism (continued)



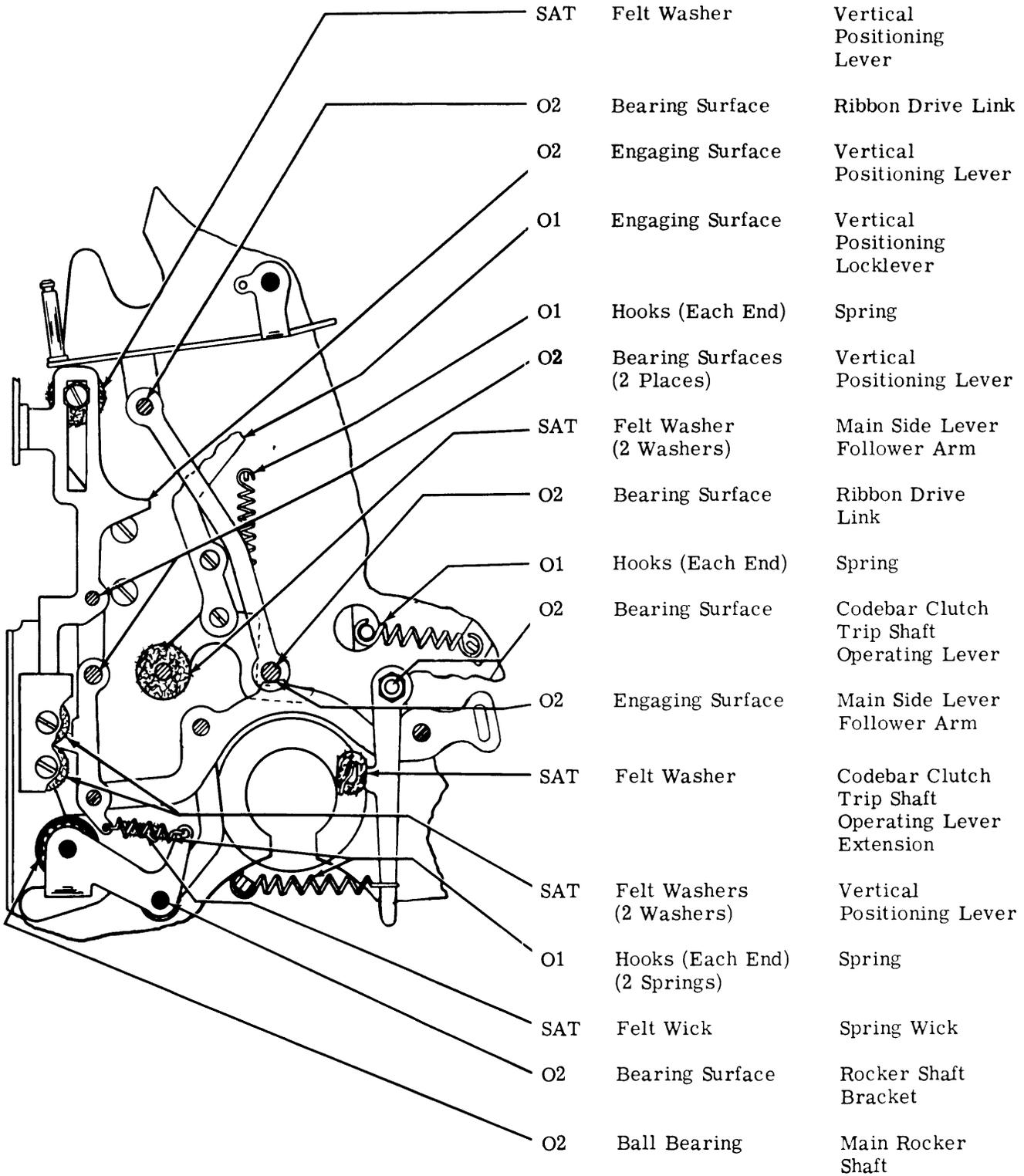
- | | | |
|----|------------------|--------------------------|
| O2 | Engaging Surface | Ribbon Reverse Lever |
| O2 | Bearing Surface | Ribbon Reverse Lever |
| O2 | Engaging Surface | Ribbon Reverse Lever |
| G | Teeth | Ribbon Reverse Spur Gear |

2.16 Vertical Positioning Mechanism



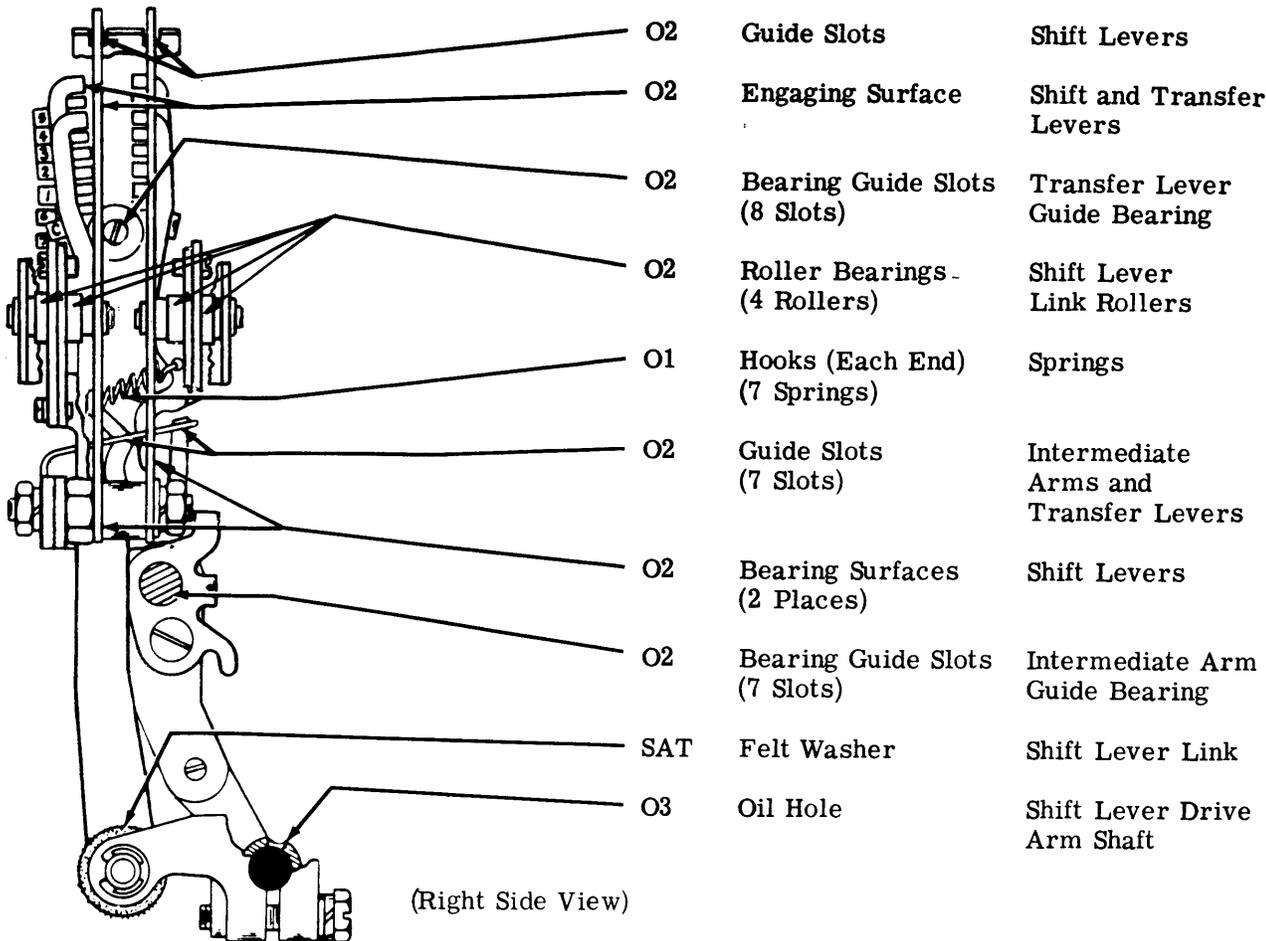
(Left Side View)

2.17 Vertical Positioning Mechanism (continued)

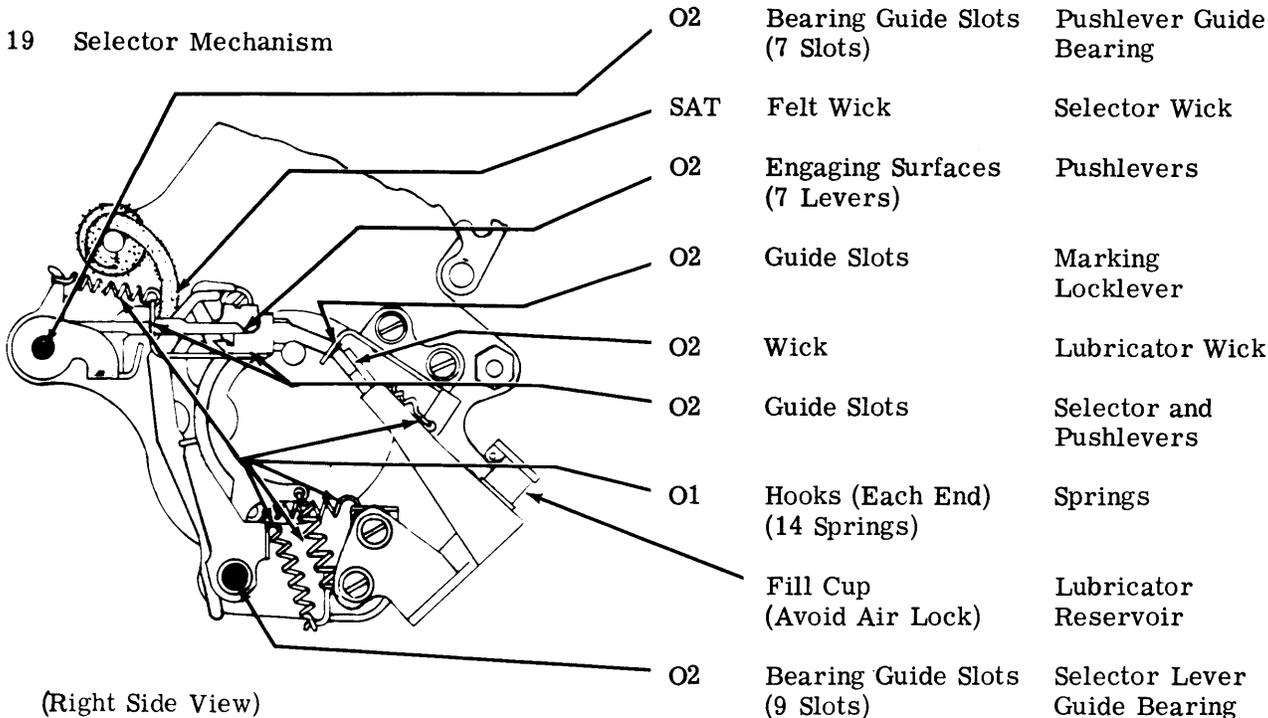


(Right Side View)

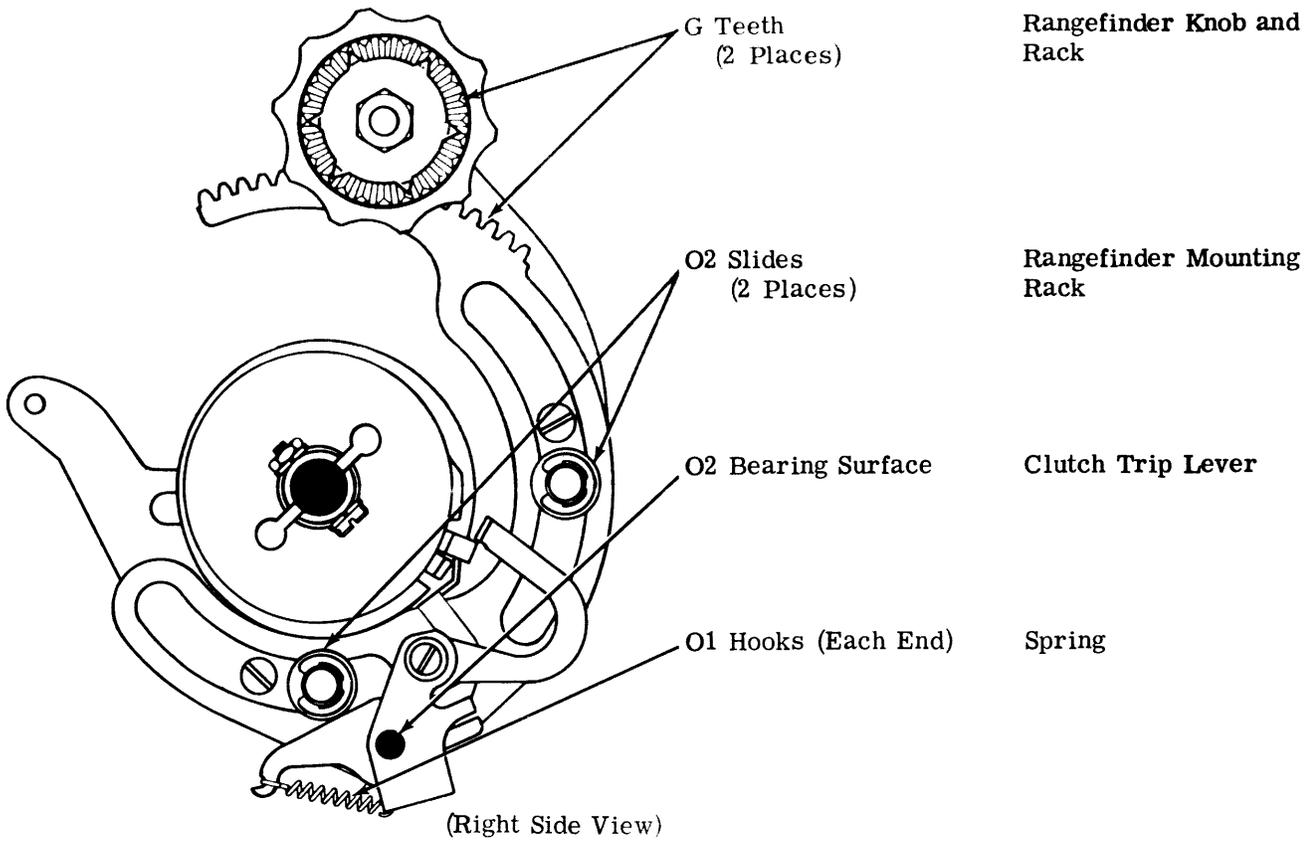
2.18 Codebar Mechanism (continued)



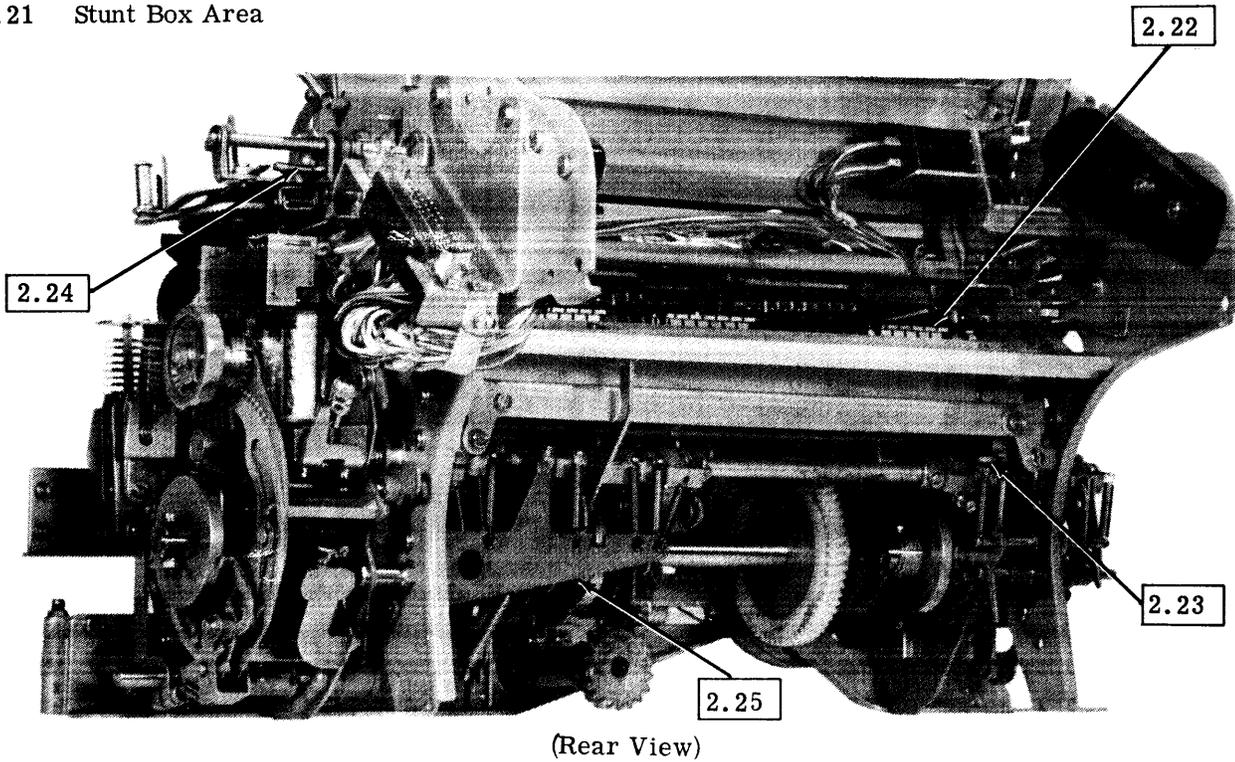
2.19 Selector Mechanism



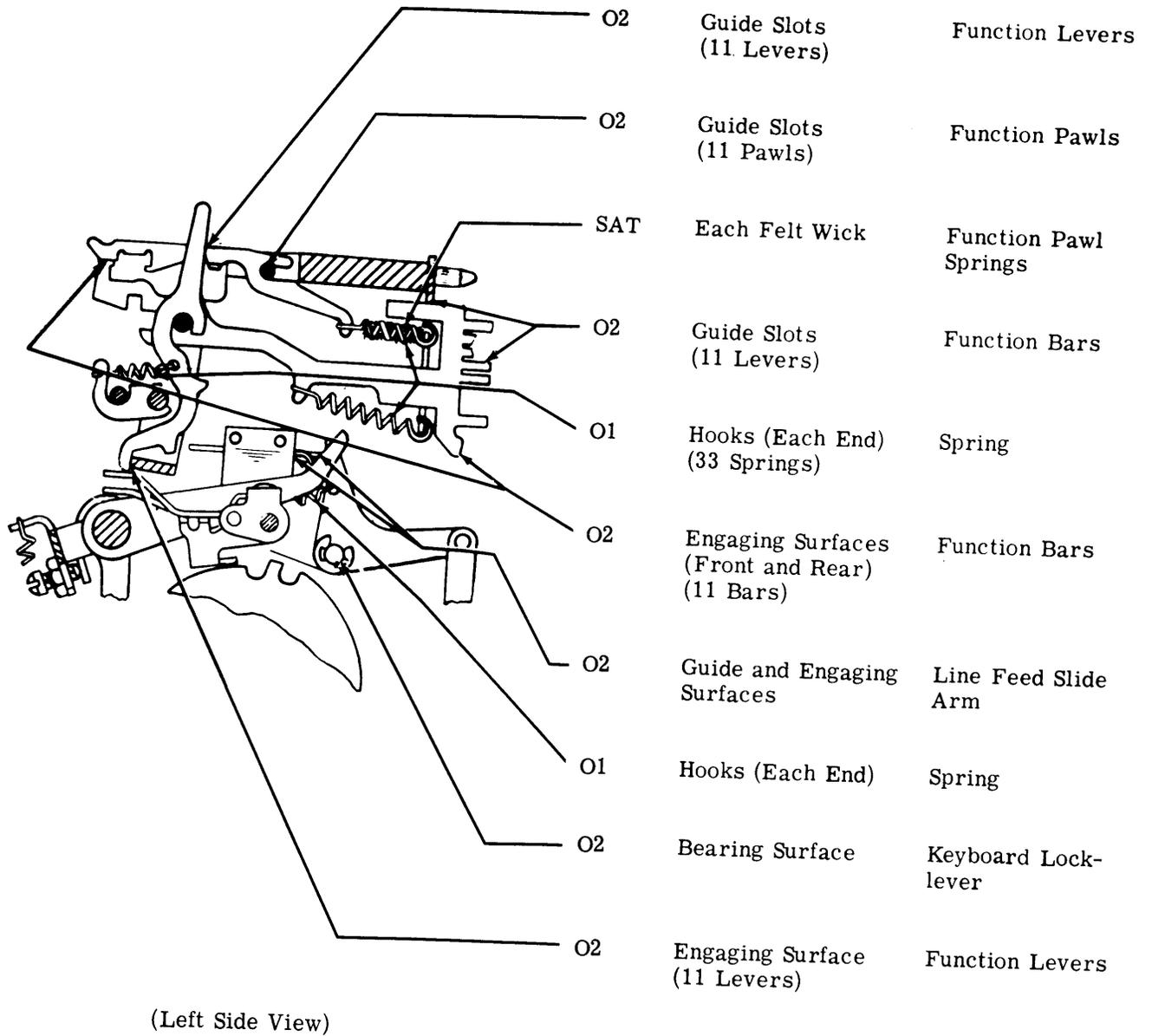
2.20 Selector Mechanism (continued)



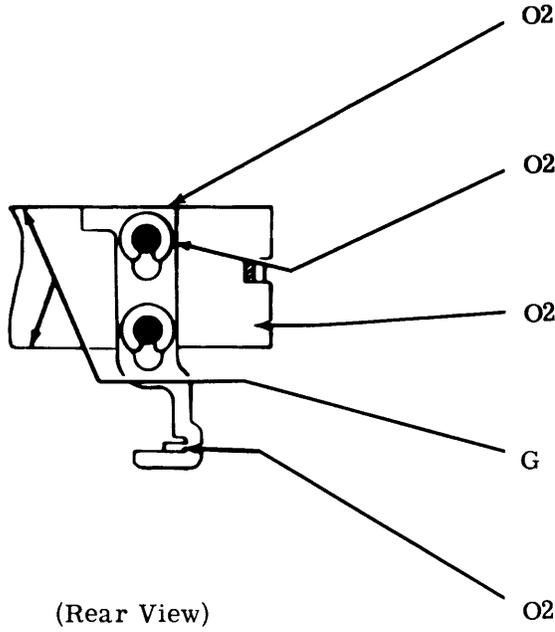
2.21 Stunt Box Area



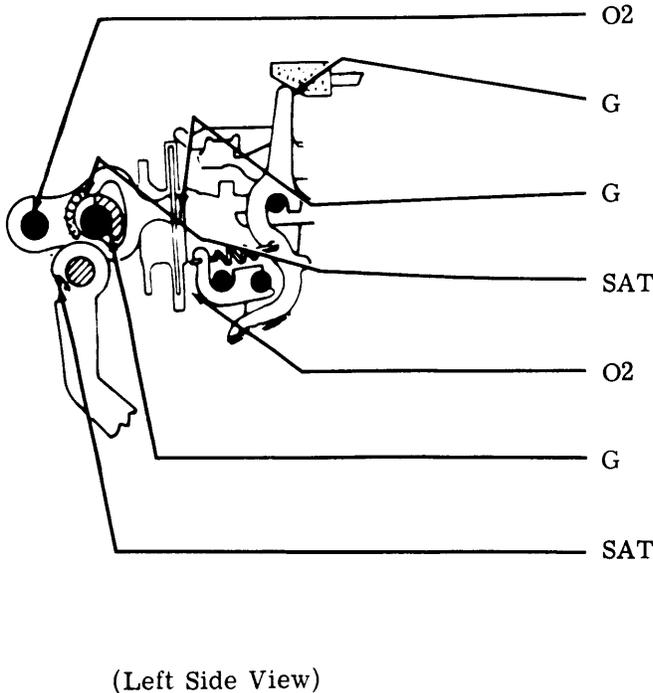
2.22 Stunt Box Mechanism



2.23 Stripper Blade Mechanism

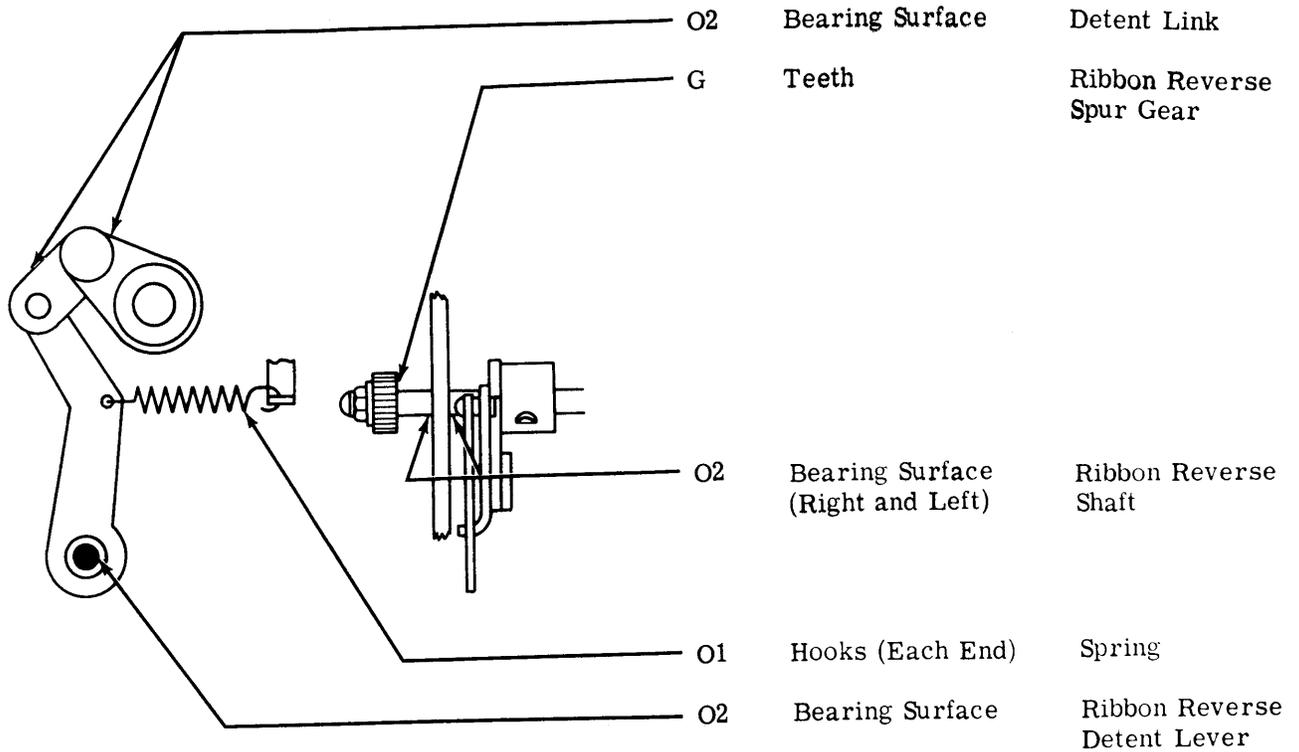


- O2 Engaging Surface Line Feed Stripper Slide
- O2 Guide Surfaces (2 Places) Stripper Slide
- O2 Guide Surfaces (Each End) Stripper Blade
- G Engaging Surfaces (2 Places) Stripper Blade
- O2 Engaging Surface Stripper Bail



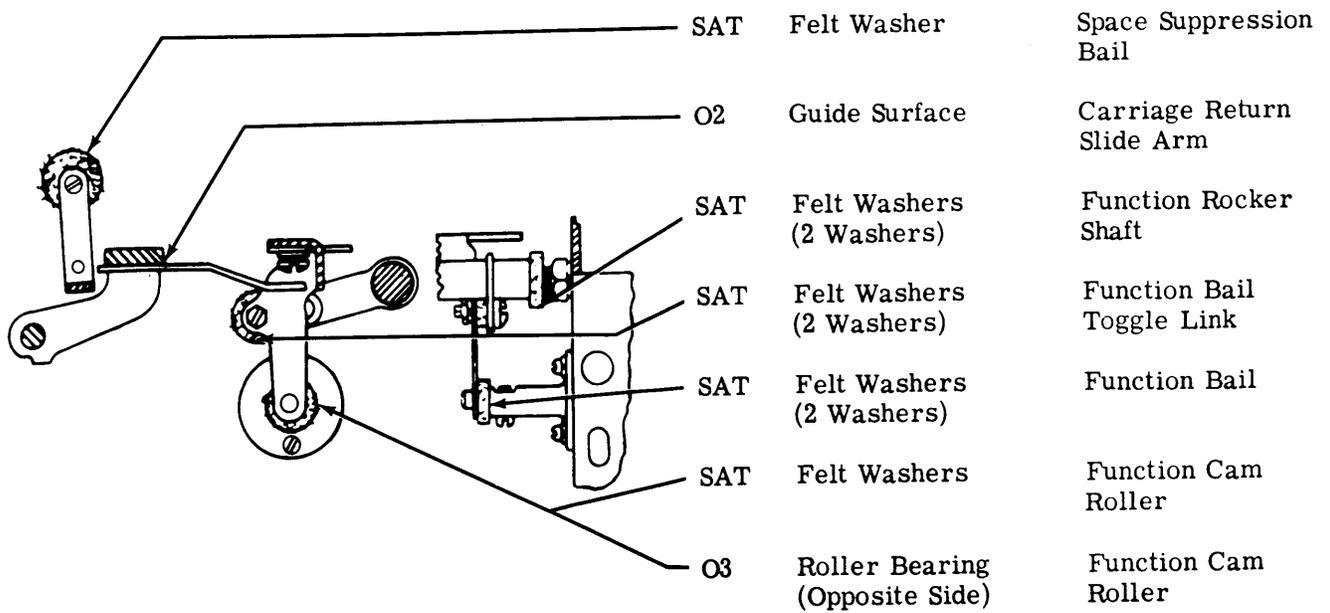
- O2 Bearing Surfaces (2 Bearings) Cam Arms
- G Engaging Surfaces (Each Arm) Contact Arm
- G Engaging Surfaces (2 Arms) Cam Arms
- SAT Felt Washers (4 Washers) Driving Cam
- O2 Guide Slots (Each End) Stripper Blade
- G Camming Surfaces (2 Cams) Driving Cam
- SAT Felt Washer Stripper Blade Driving Arm

2.24 Ribbon Reverse Mechanism



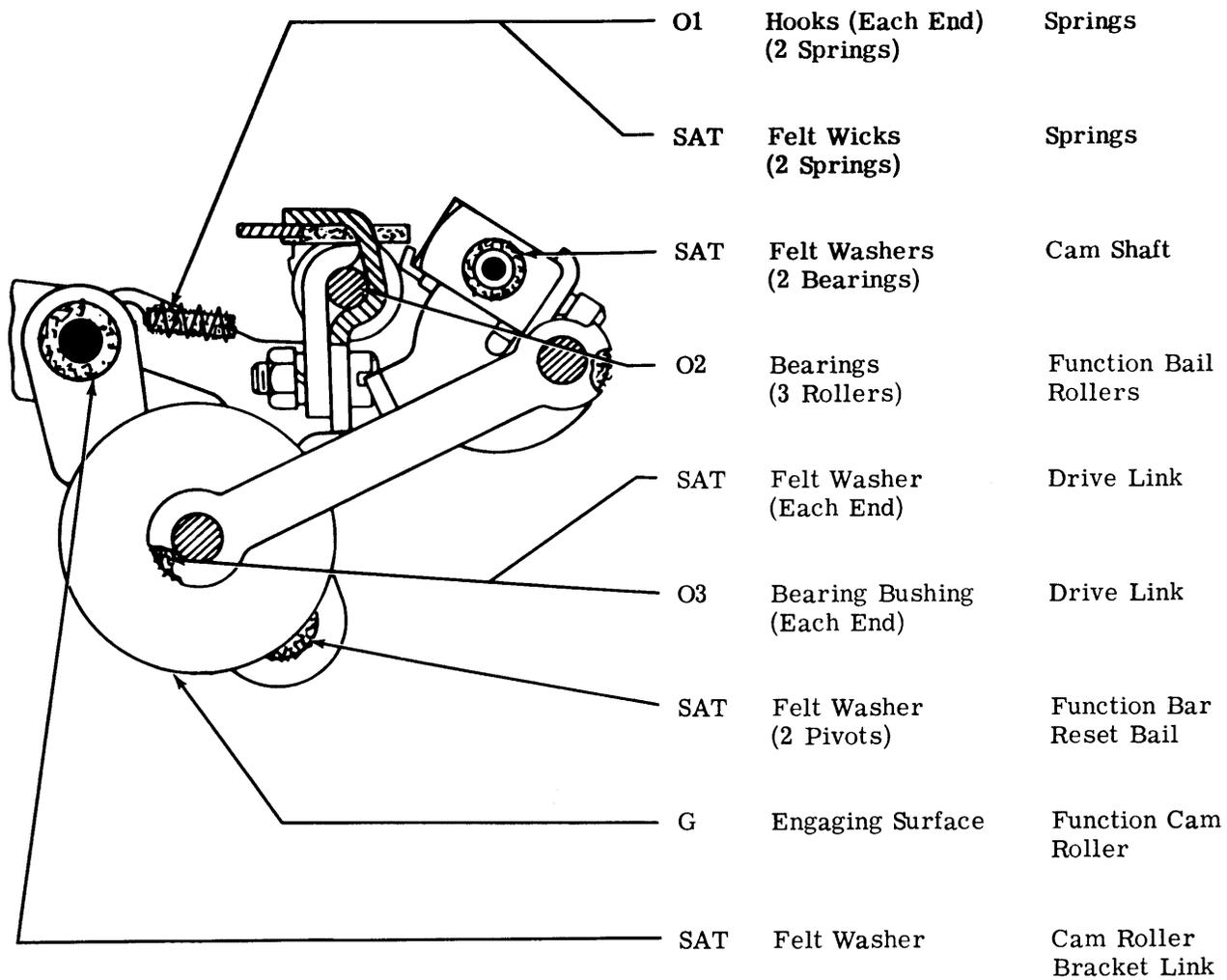
(Right Rear View)

2.25 Function Rocker Shaft Mechanism



(Left Rear View)

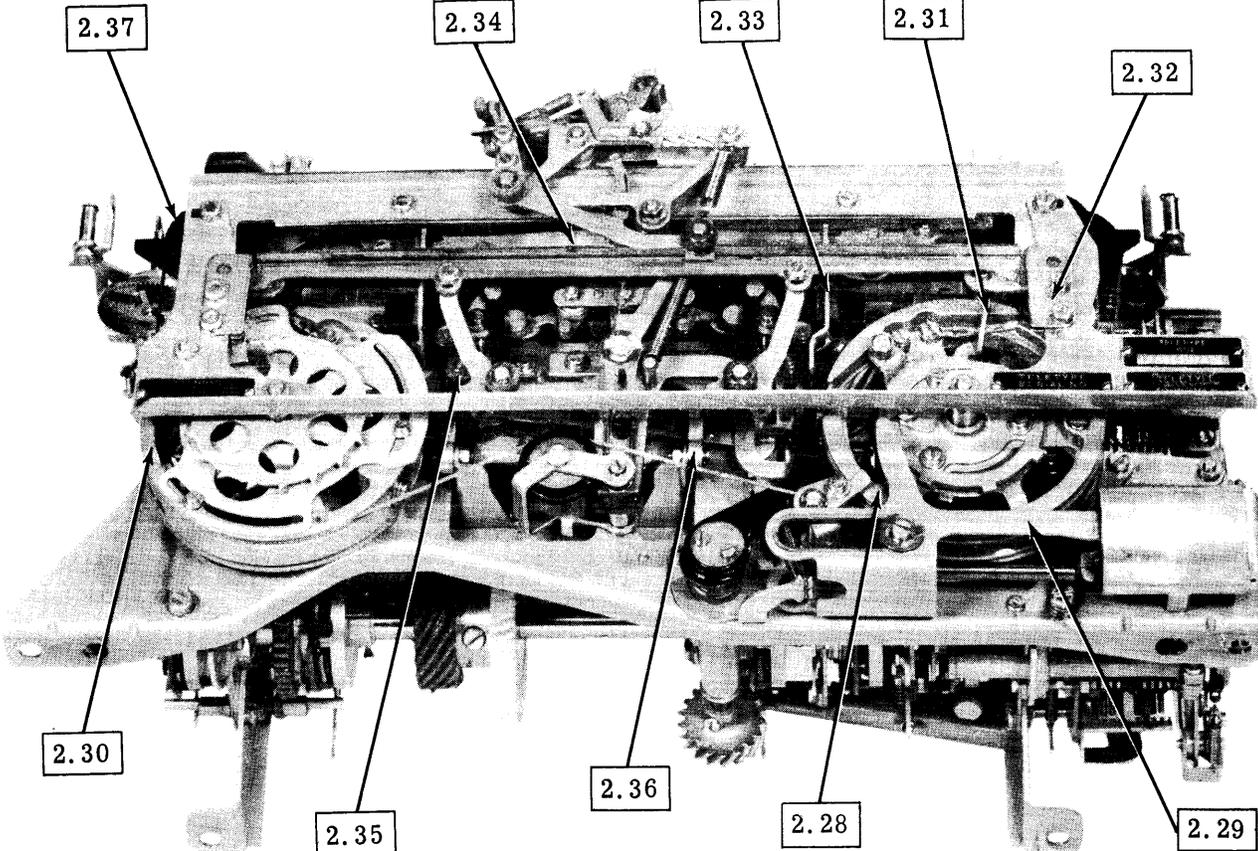
2.26 Function Reset Bail Mechanism



(Left Side View)

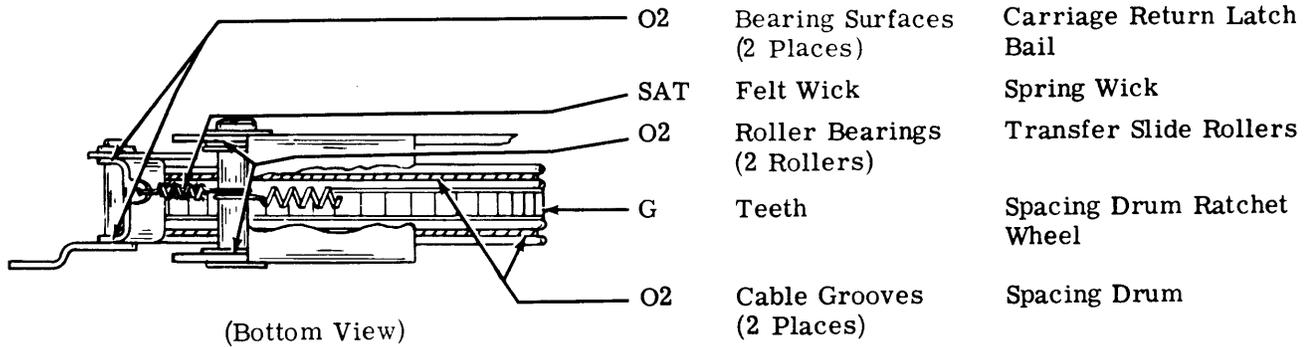
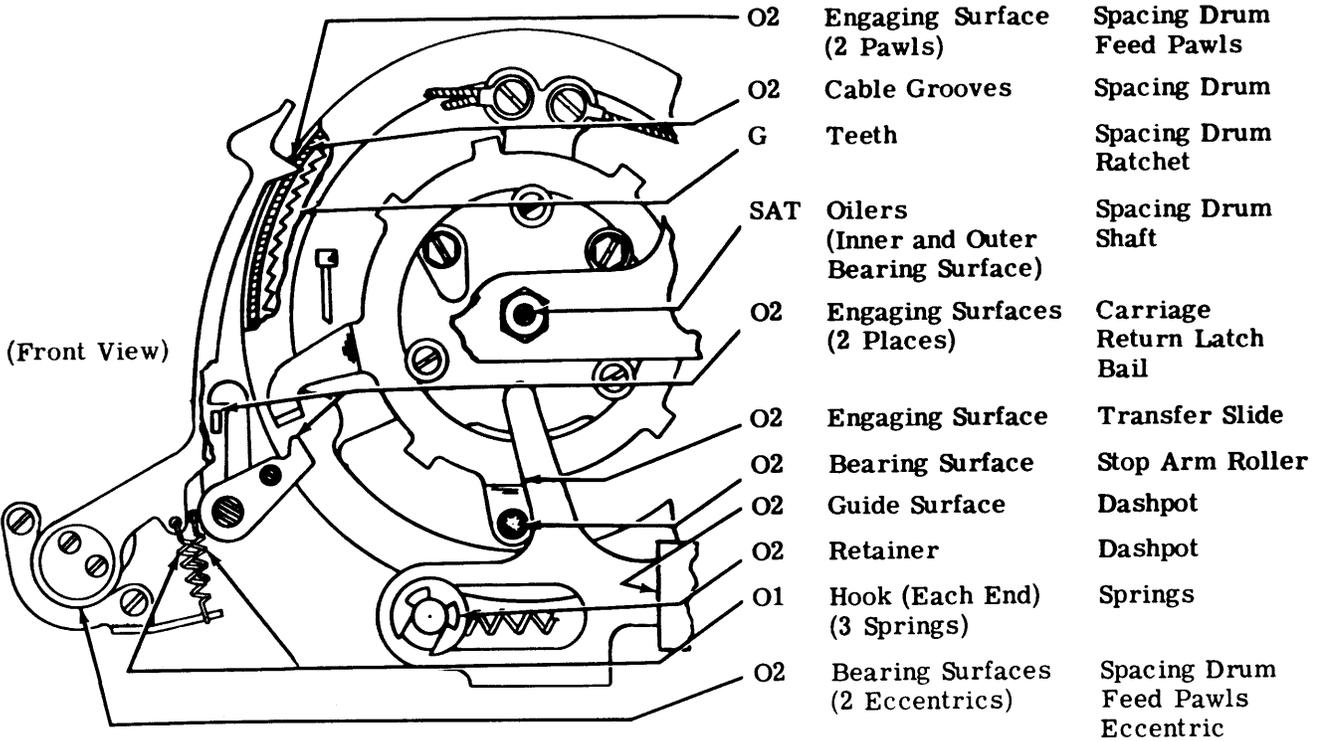
Note: See 2.38 for photograph of the location of this mechanism.

2.27 Spacing and Drive Area

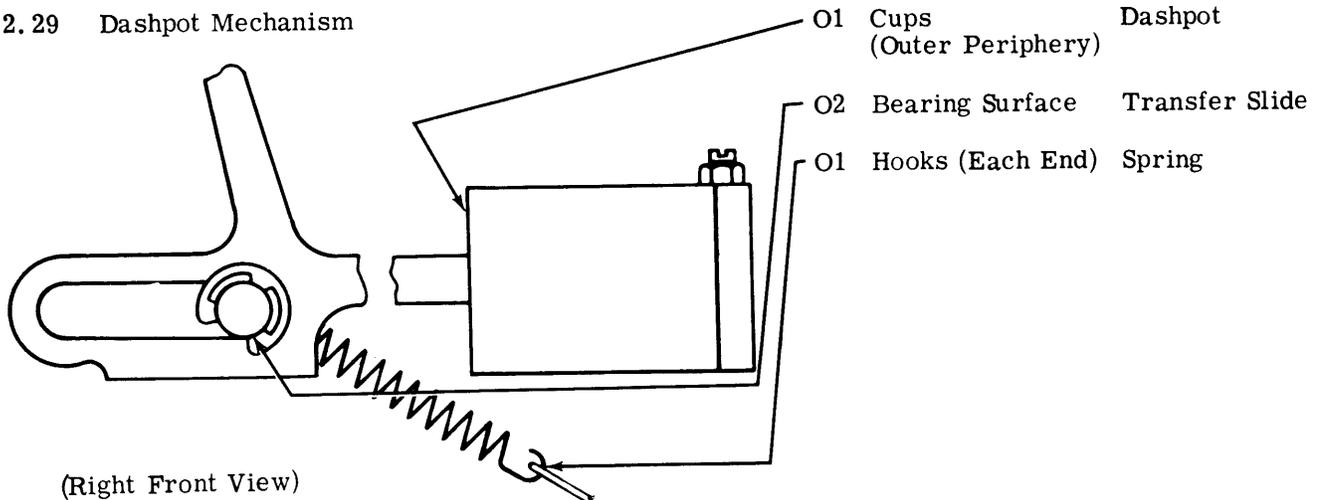


(Bottom Front View)

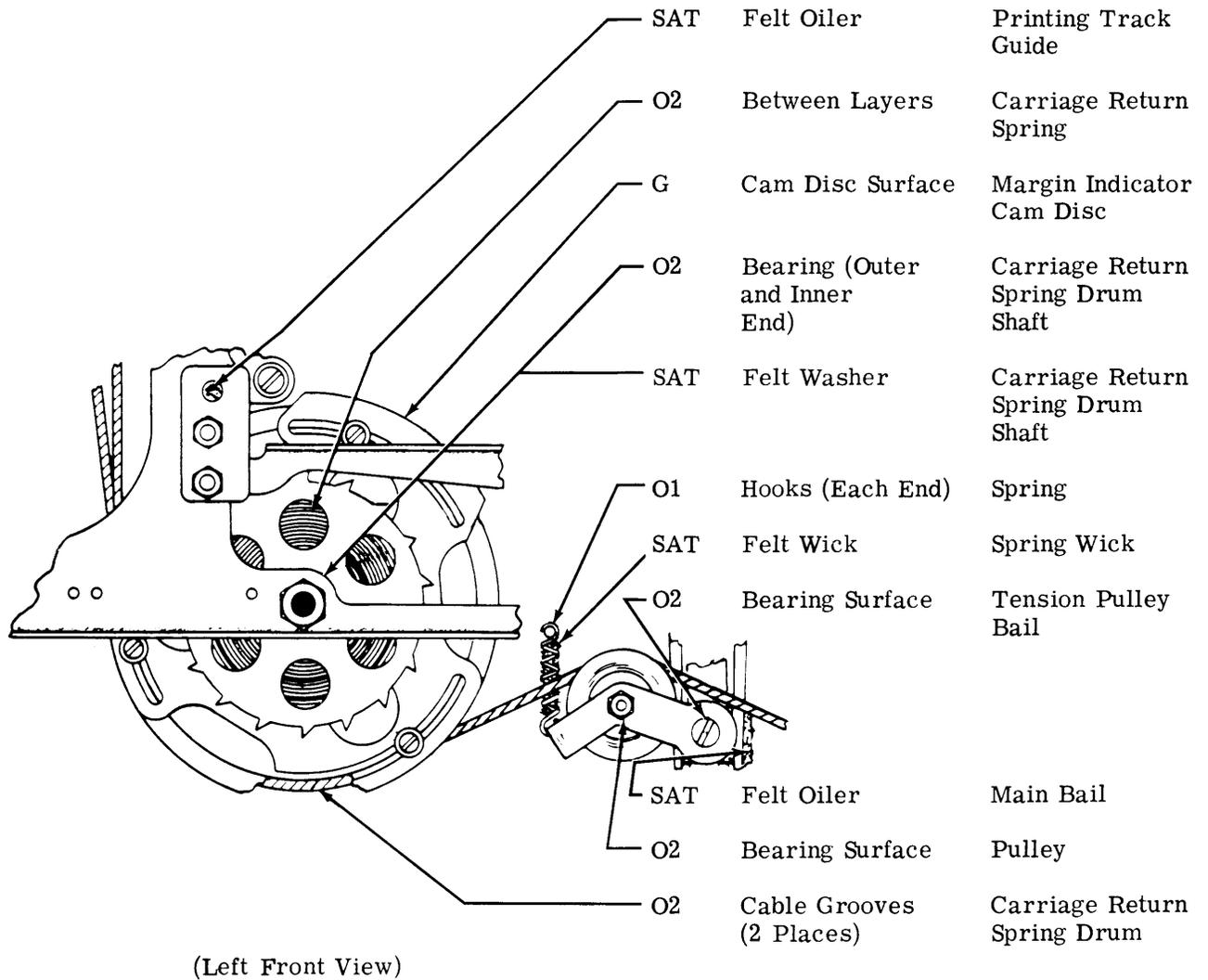
2.28 Spacing Drum Mechanism



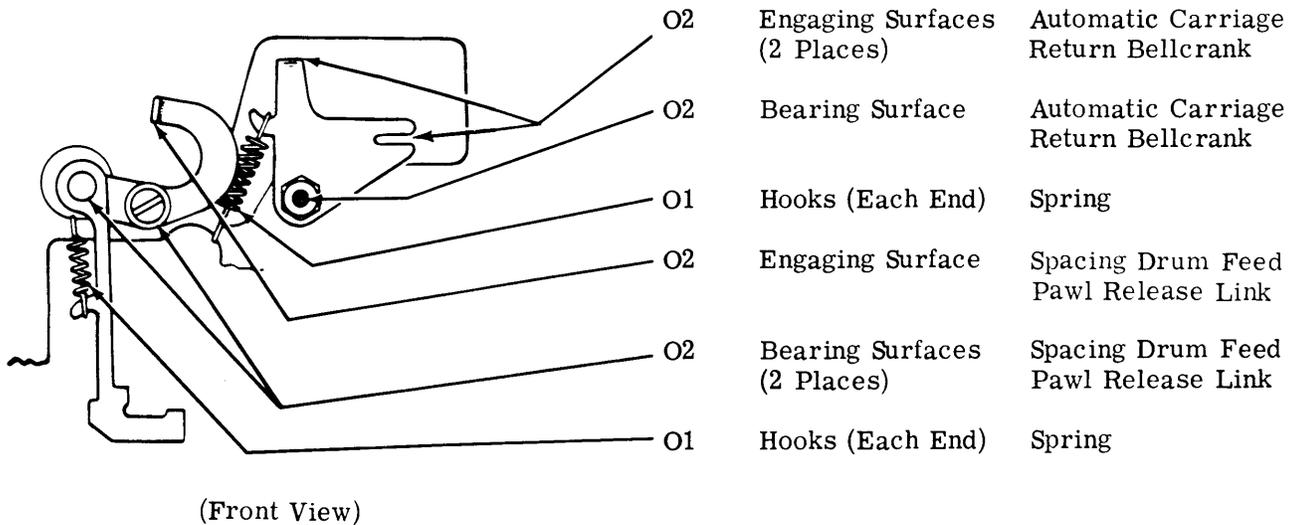
2.29 Dashpot Mechanism



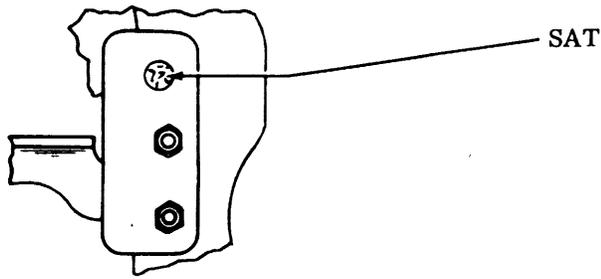
2.30 Carriage Return Mechanism



2.31 Spacing Drum Feed Mechanism



2.32 Track Guide Mechanism

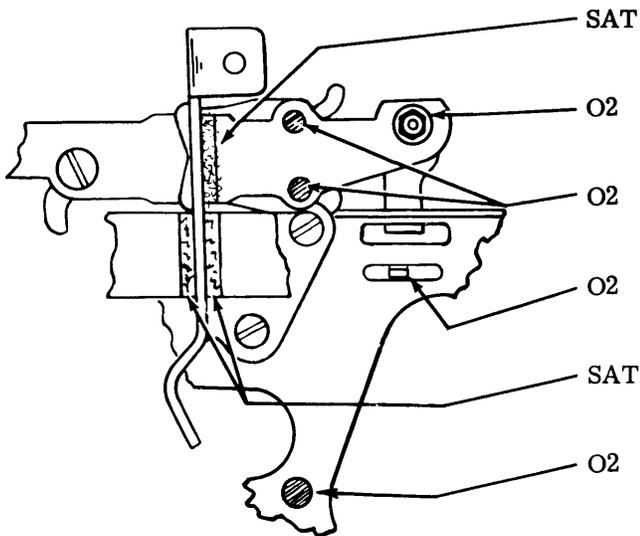


(Right Front View)

Felt Oiler

Printing Track Guide

2.33 Horizontal Positioning Mechanism



(Right Front View)

Felt Washer

Horizontal Reversing Slide

Engaging Surface

Horizontal Reversing Slide Shift Lever

Detent (2 Detents)

Detent Bail

Engaging Surface

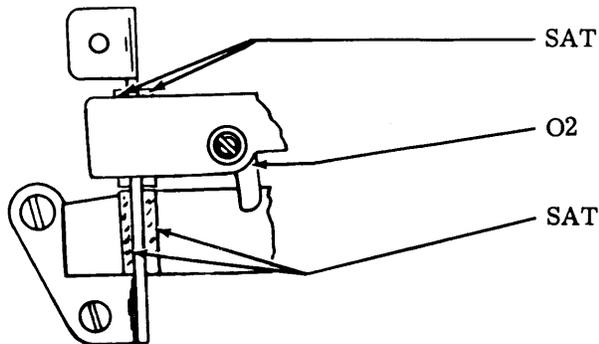
Horizontal Reversing Slide Shift Lever

Felt Washers (2 Washers)

Oscillating Rail Shift Slide

Bearing Surface

Horizontal Reversing Slide Shift Lever



(Left Front View)

Felt Washers (2 Washers)

Horizontal Reversing Slide

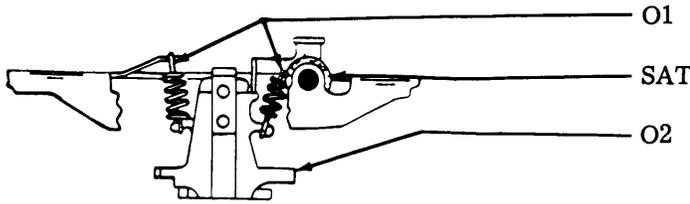
Engaging Surfaces (2 Places)

Horizontal Reversing Slide Bracket

Felt Washers (2 Washers)

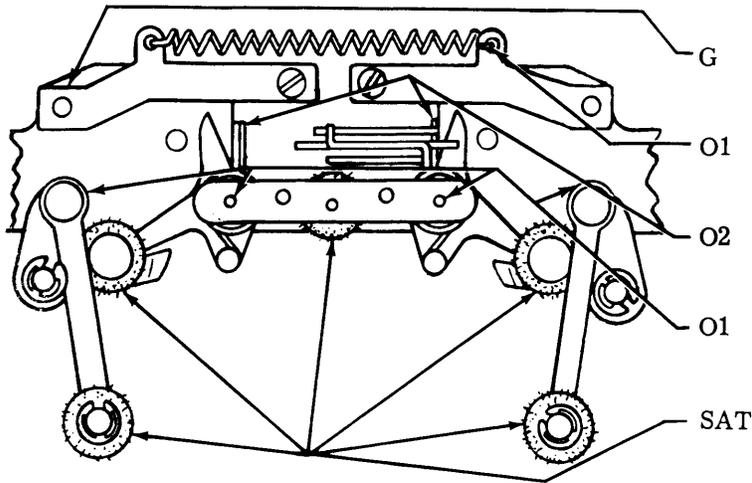
Oscillating Rail Shift Slide

2.34 Horizontal Positioning Mechanism (continued)



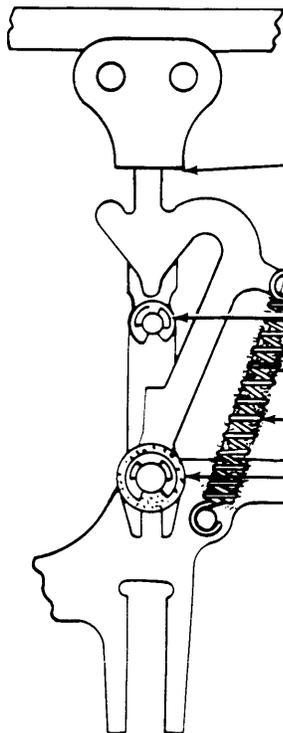
(Top View)

- | | | |
|-----|------------------------------|-------------------------------|
| O1 | Hooks (Each End) | Spring |
| SAT | Felt Washer | Codebar Bellcrank |
| O2 | Engaging Surfaces (3 Slides) | Horizontal Motion Stop Slides |



(Front View)

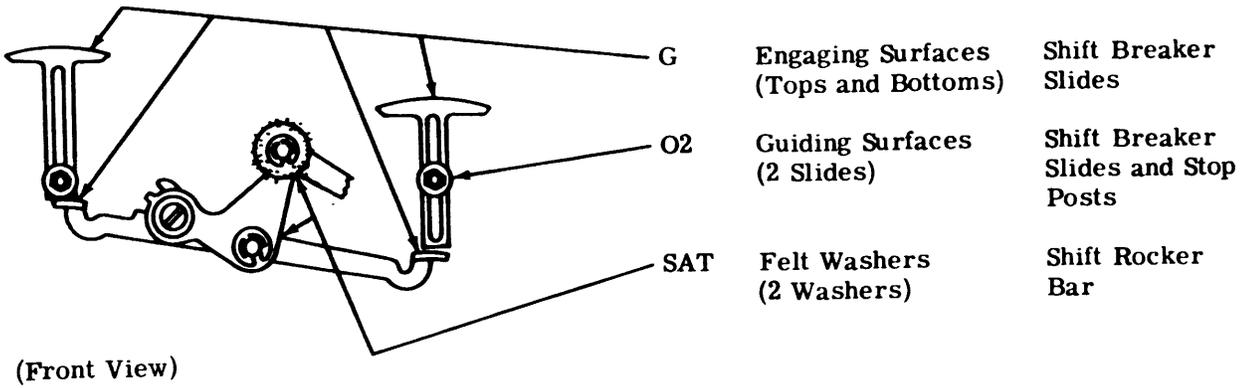
- | | | |
|-----|------------------------------|-----------------------------|
| G | Engaging Surfaces (2 Slides) | Shift Shock Absorber Slides |
| O1 | Hooks (Each End) | Shock Absorber Spring |
| O2 | Engaging Surfaces (2 Slides) | Decelerating Slides |
| O1 | Bearing Surfaces (4 Places) | Shift Slide Driver Links |
| SAT | Felt Washers (5 Washers) | Shift Slide Drive Links |



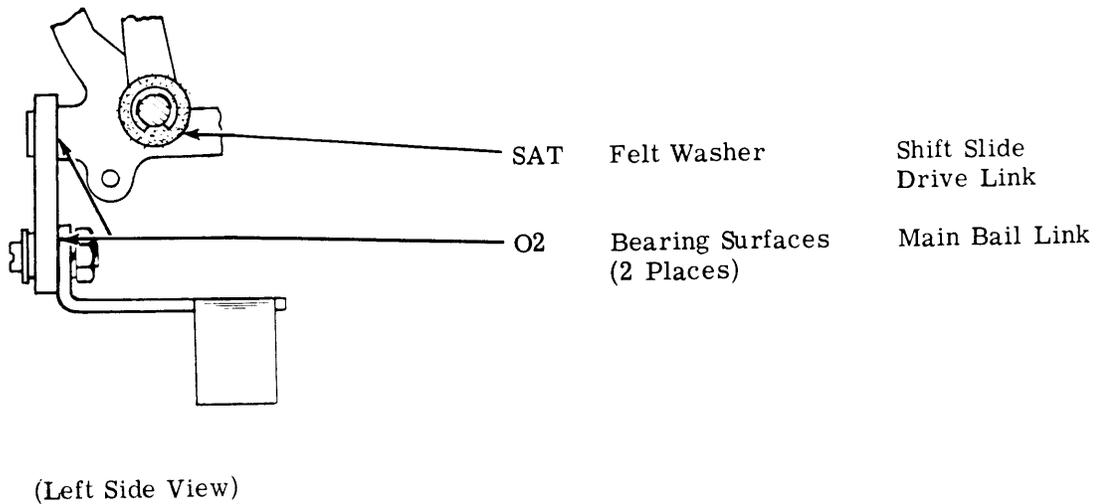
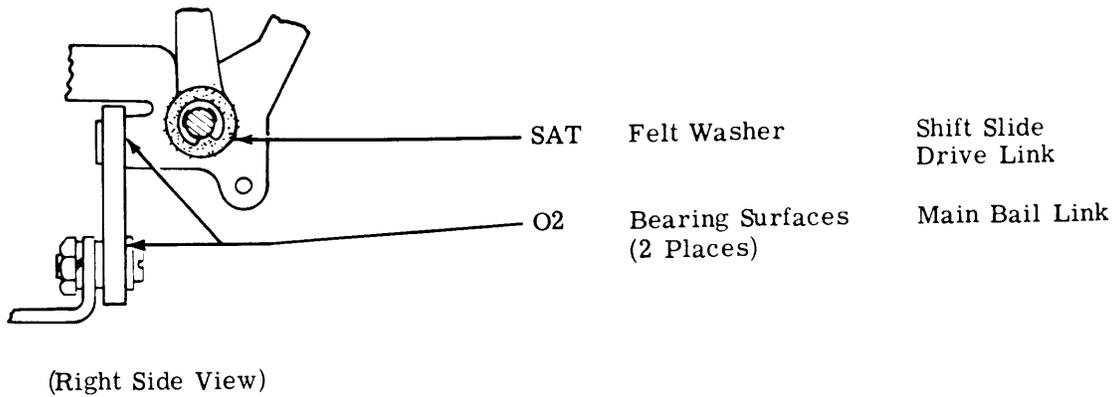
(Front View)

- | | | |
|-----|------------------|----------------------------------|
| O2 | Guiding Surface | Horizontal Positioning Locklever |
| O2 | Bearing Surface | Horizontal Locklever Arm Roller |
| SAT | Felt Wick | Spring Wick |
| O1 | Hooks (Each End) | Spring |
| SAT | Felt Washer | Horizontal Positioning Locklever |

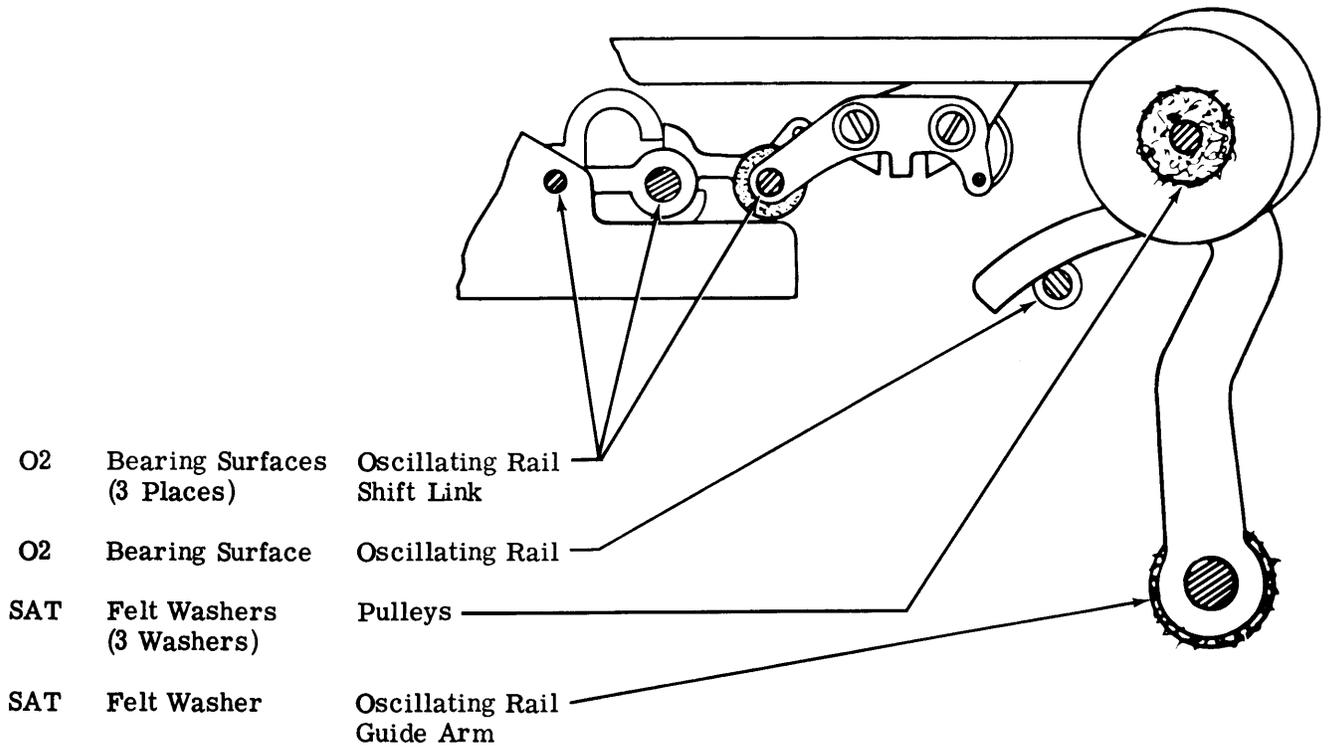
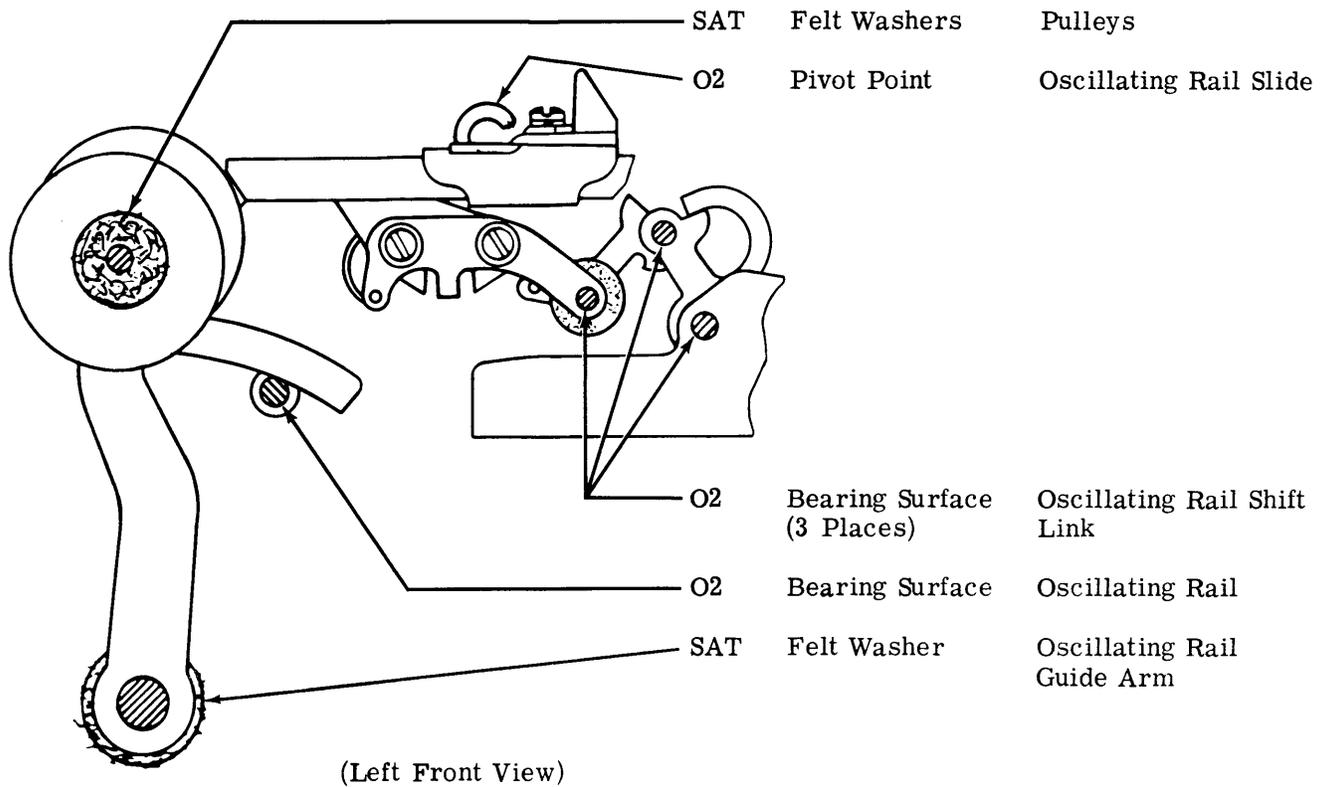
2.35 Horizontal Positioning Drive Mechanism



2.36 Shift Mechanism

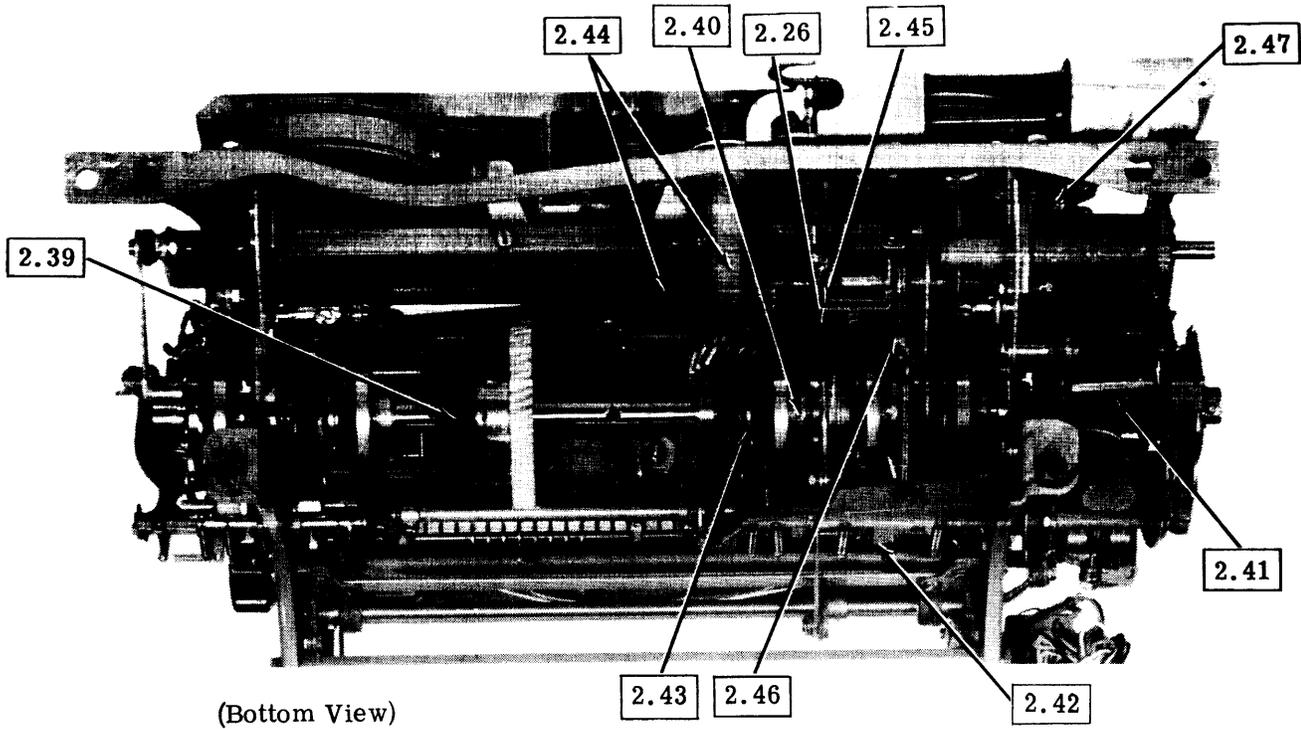


2.37 Oscillating Mechanism

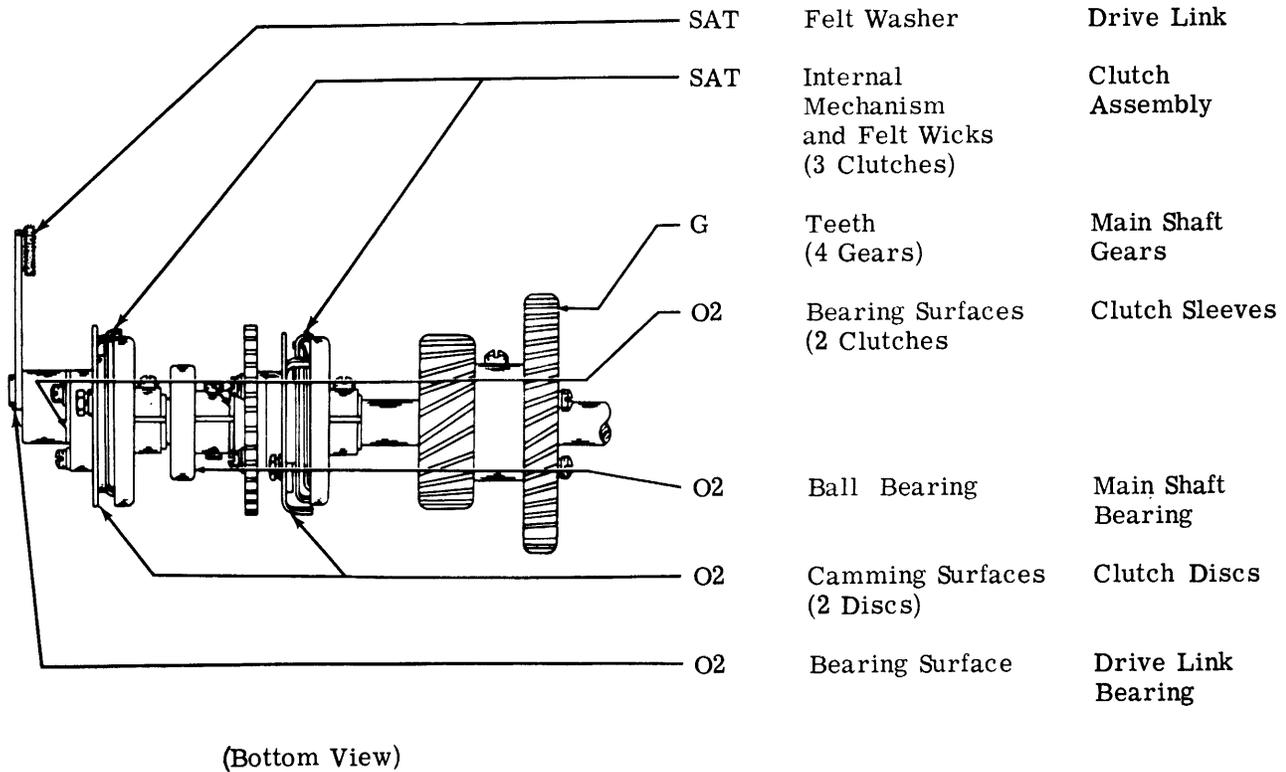


(Right Front View)

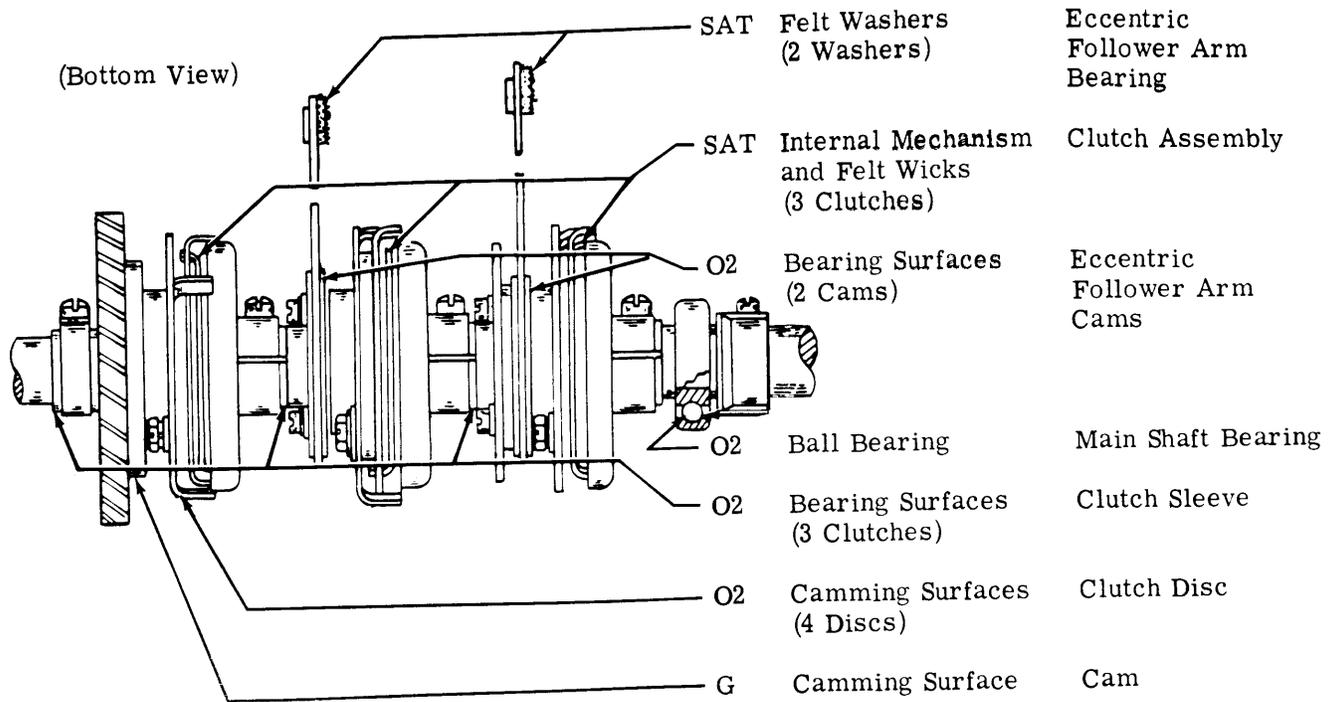
2.38 Main Shaft Area



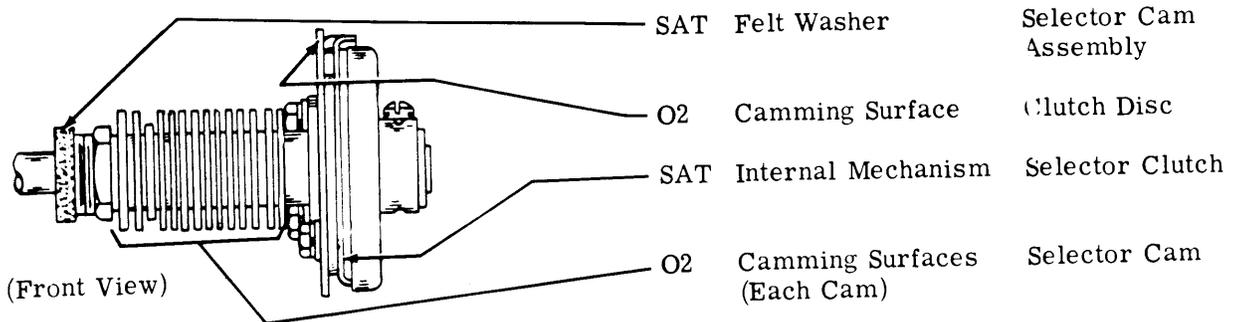
2.39 Main Shaft (Clutches, Gears, etc)



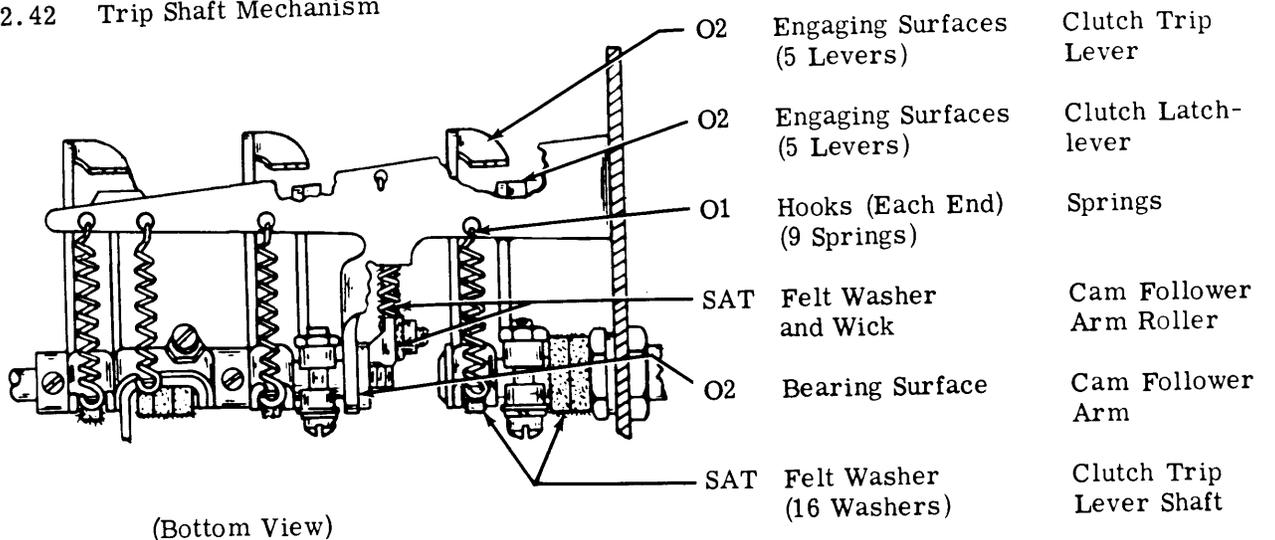
2.40 Main Shaft (Clutches, Gears, etc) (continued)



2.41 Selector Cam Clutch Assembly

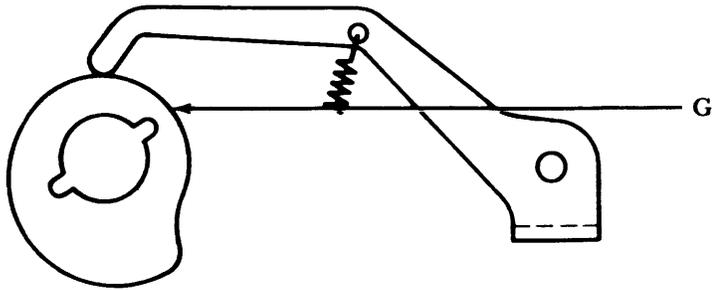


2.42 Trip Shaft Mechanism



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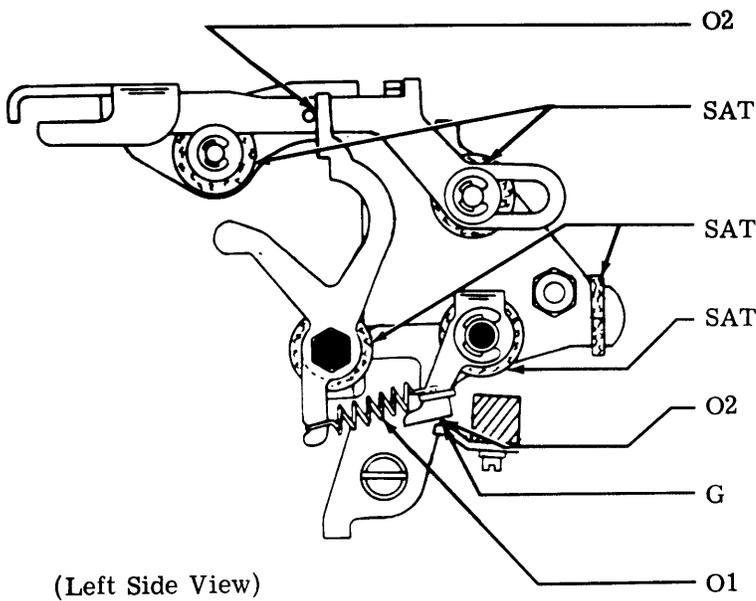
2.43 Spacing Clutch Trip Cam Mechanism



(Right Side View)

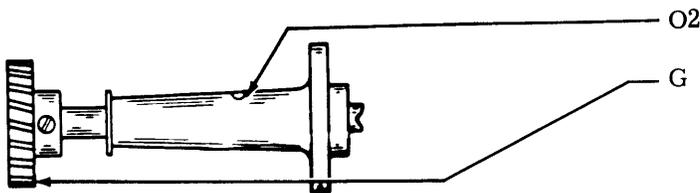
Camming Surface	Spacing Clutch Trip Cam
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2.44 Spacing Mechanism



(Left Side View)

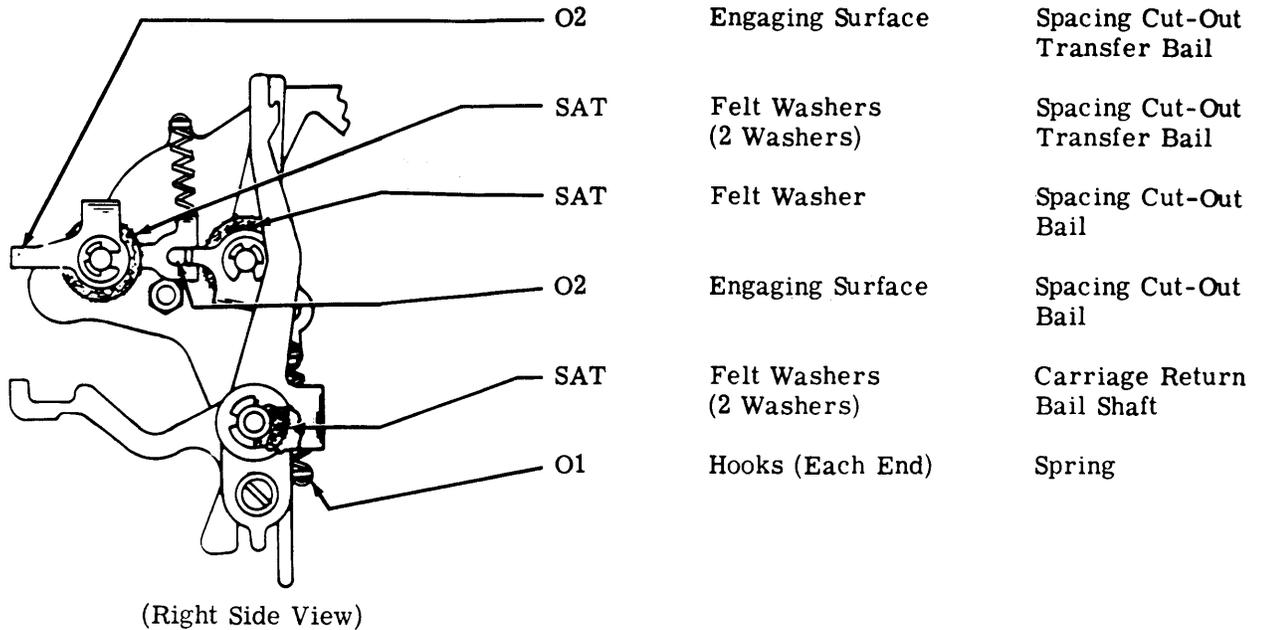
O2	Engaging Surfaces	Spacing Trip Lever
SAT	Felt Washers (2 Washers)	Spacing Suppression Slide
SAT	Felt Washers (2 Washers)	Spacing Trip Lever
SAT	Felt Washer	Spacing Trip Lever Bail Shaft
O2	Engaging Surface	Spacing Trip Lever Bail
G	Engaging Surface	Rocker Shaft Cam Place
O1	Hooks (Each End) (2 Springs)	Spring



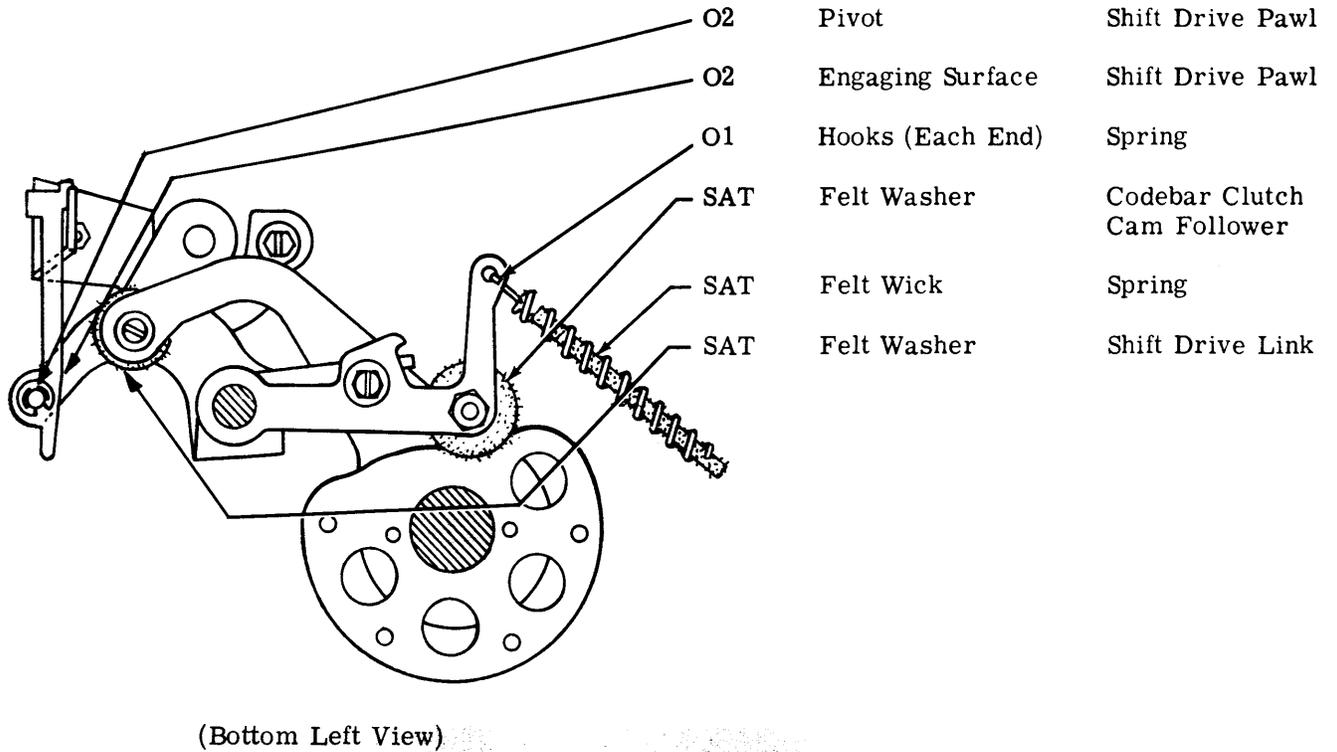
(Bottom View)

O2	Oil Hole	Spacing Shaft
G	Teeth	Spacing Shaft Gear

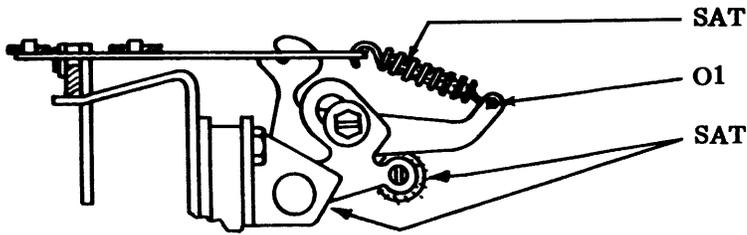
2. 45 Spacing Mechanism (continued)



2. 46 Shift Selector Mechanism

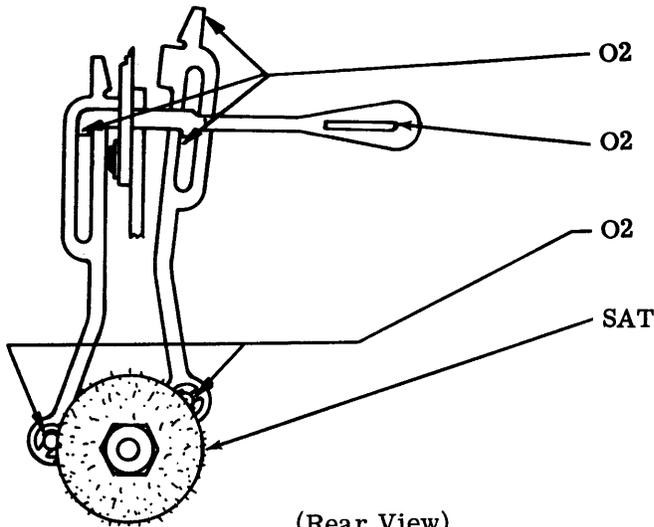


2.47 Shift Selector Mechanism (continued)



(Rear View)

- SAT Felt Wick Spring
- O1 Hooks (Each End) Spring
- SAT Felt Washers (2 Washers) Shift Selector Arm Bell-crank

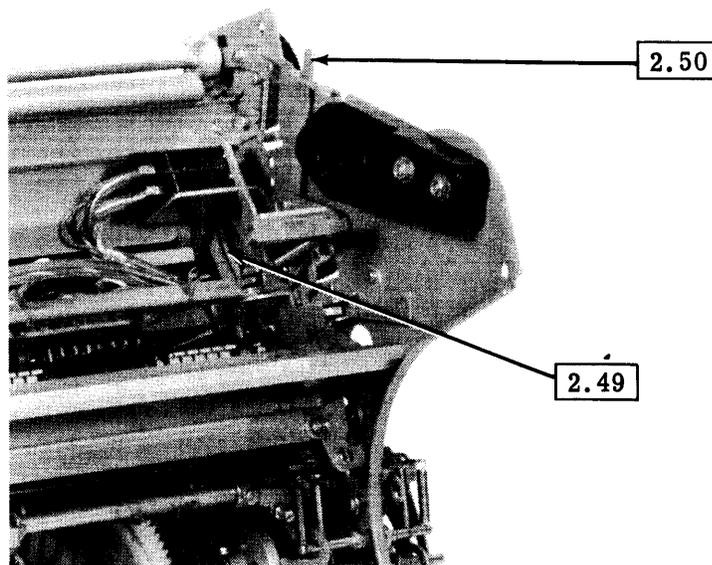


(Rear View)

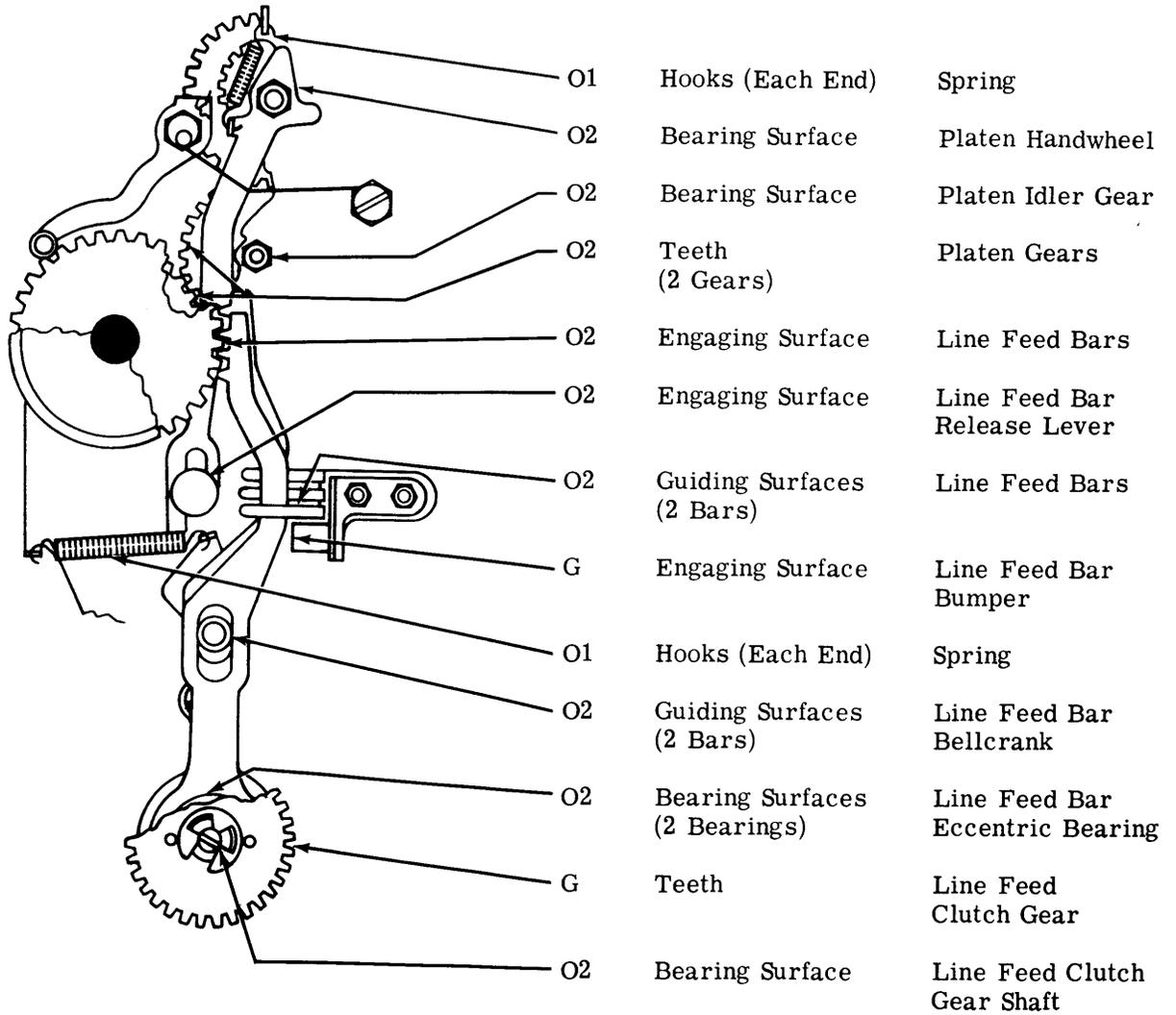
- O2 Engaging Surfaces (3 Places) Shift Pawl
- O2 Guide Surface Shift Pawl Link
- O2 Pivots (2 Places) Shift Pawl
- SAT Felt Washer Shift Pawl

2.48 Line Feed Area

(Rear View)

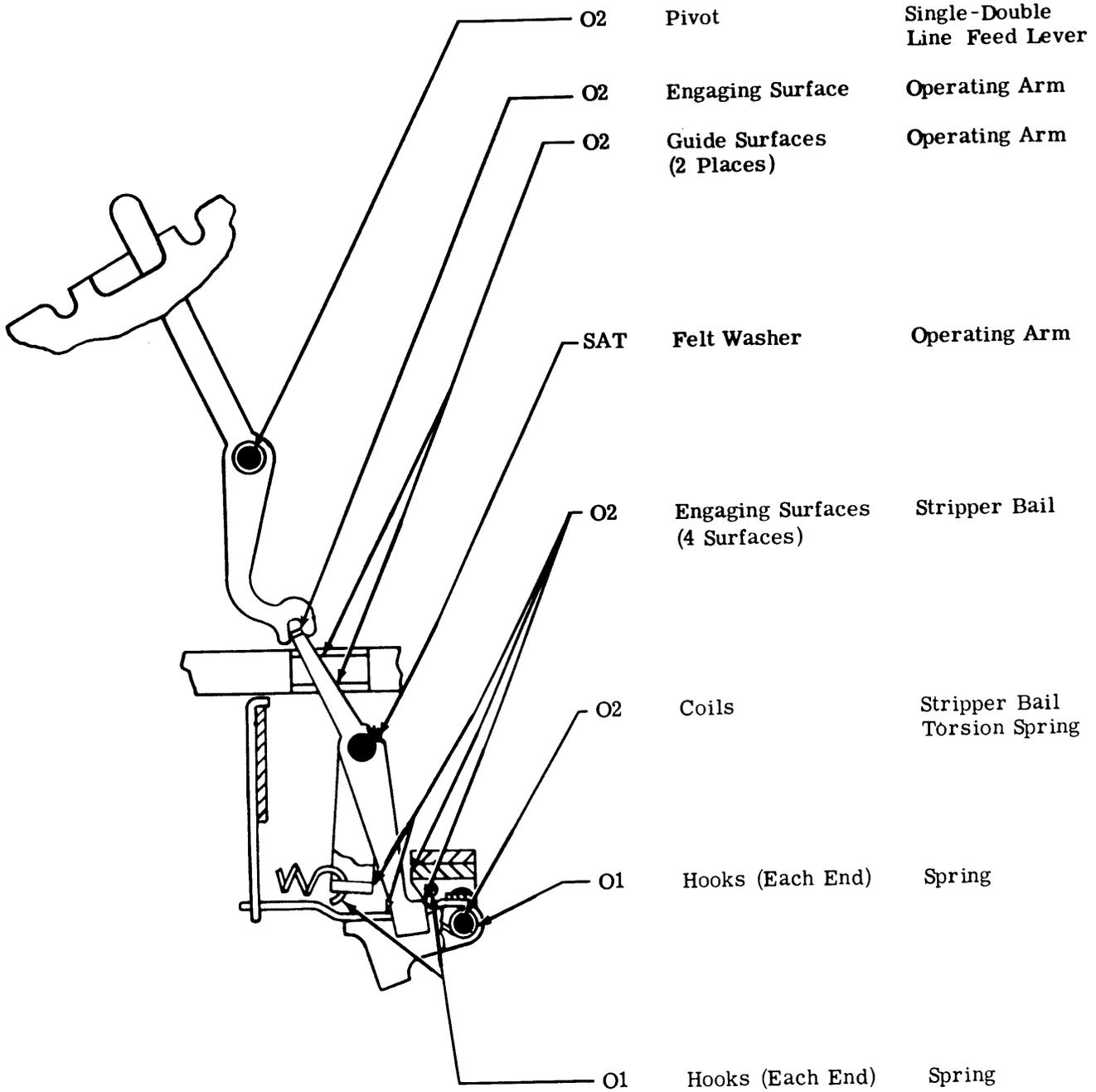


2.49 Line Feed Mechanism (Friction Feed)

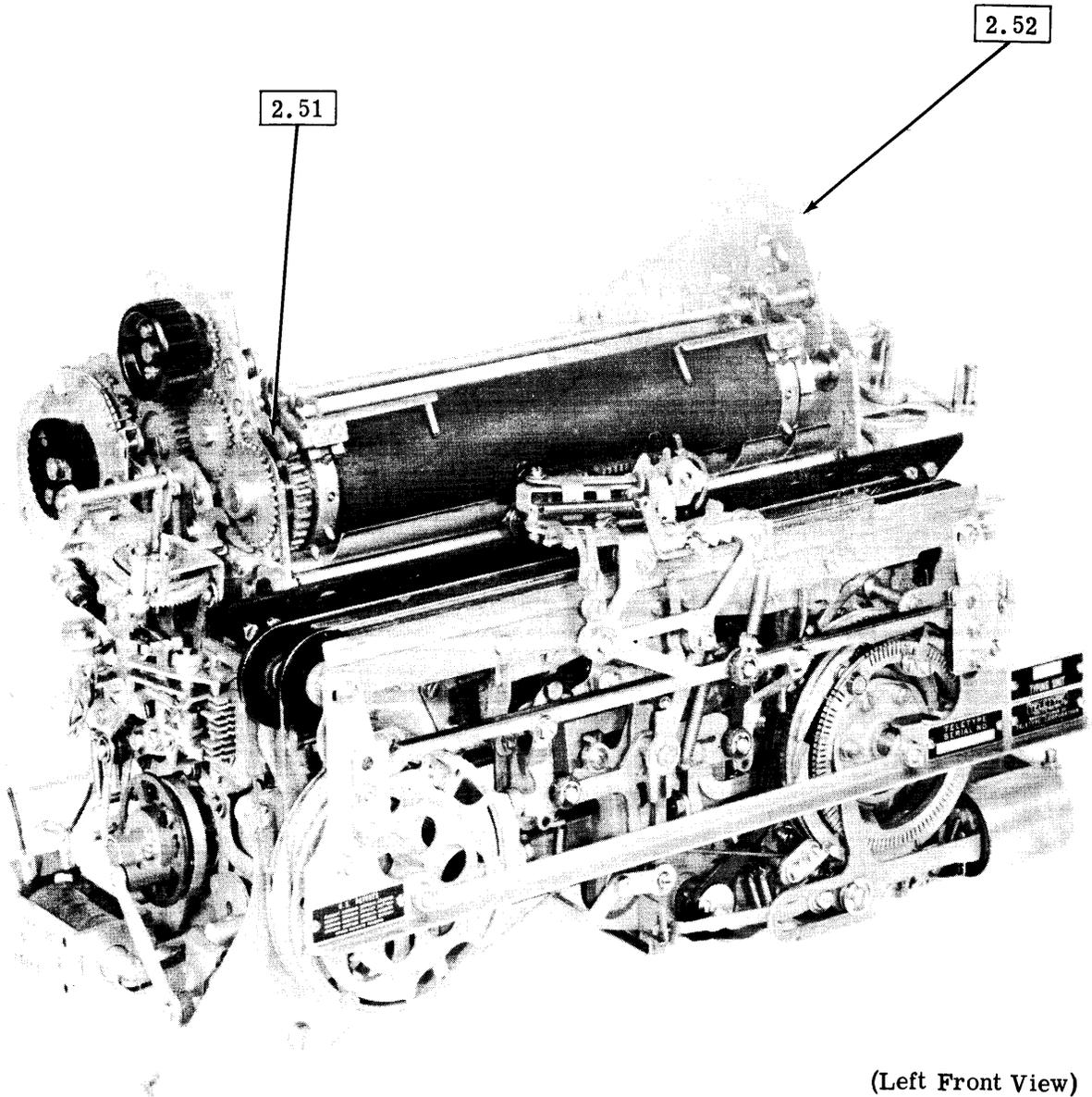


(Right Rear View)

2.50 Single-Double Line Feed Mechanism



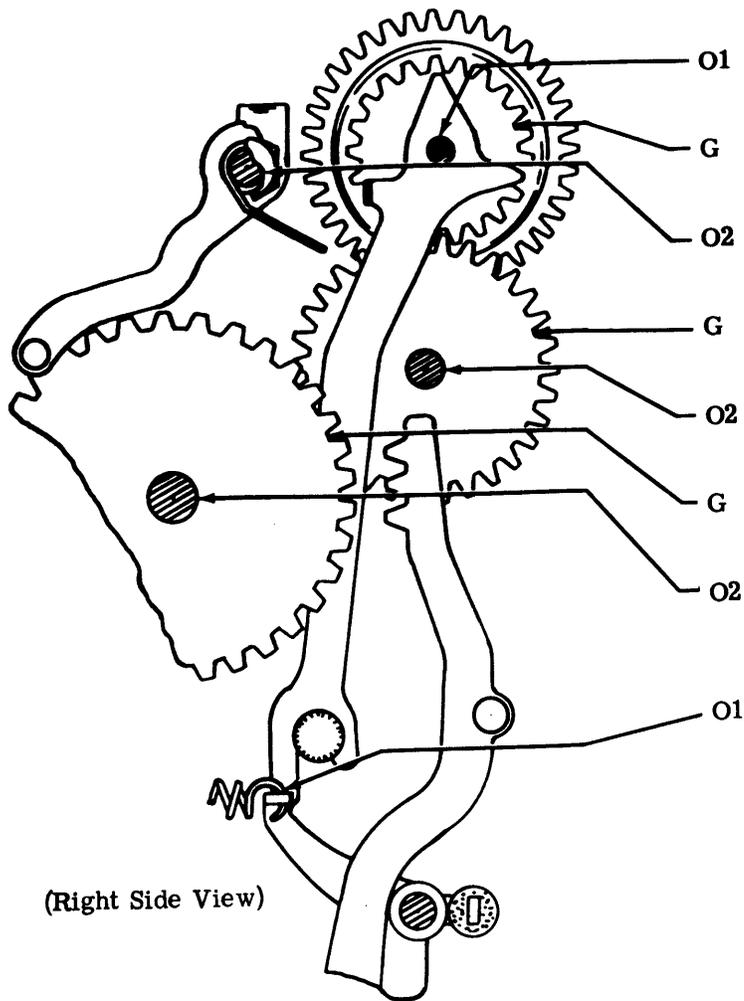
(Left Side View)



(Left Front View)

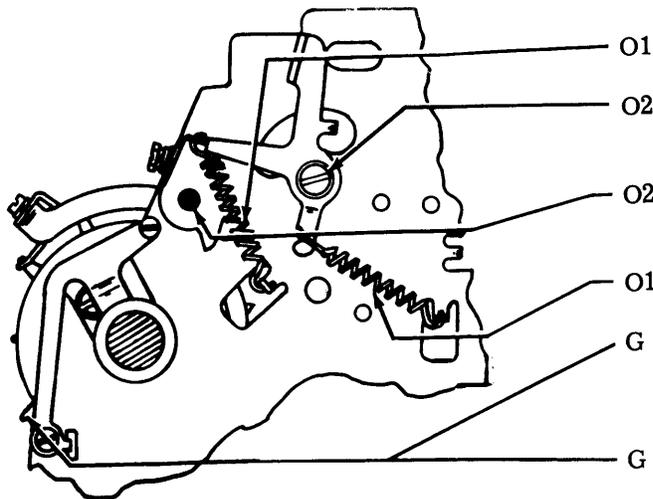
Figure 3 - 35 Typing Unit (Sprocket Feed)

2.51 Line Feed Mechanism (Sprocket Feed)



- | | | |
|----|--------------------------------|--------------------|
| O1 | Bearing Surface | Handwheel Gear |
| G | Teeth | Handwheel Gear |
| O2 | Bearing Surface | Platen Detent Bail |
| G | Teeth | Idler Gear |
| O2 | Bearing Surface | Idler Gear |
| G | Teeth | Platen Gear |
| O2 | Bearing Surfaces
(2 Places) | Platen Gear |
| O1 | Hooks (Each End) | Spring |

2.52 Sprocket Feed Paper Mechanism

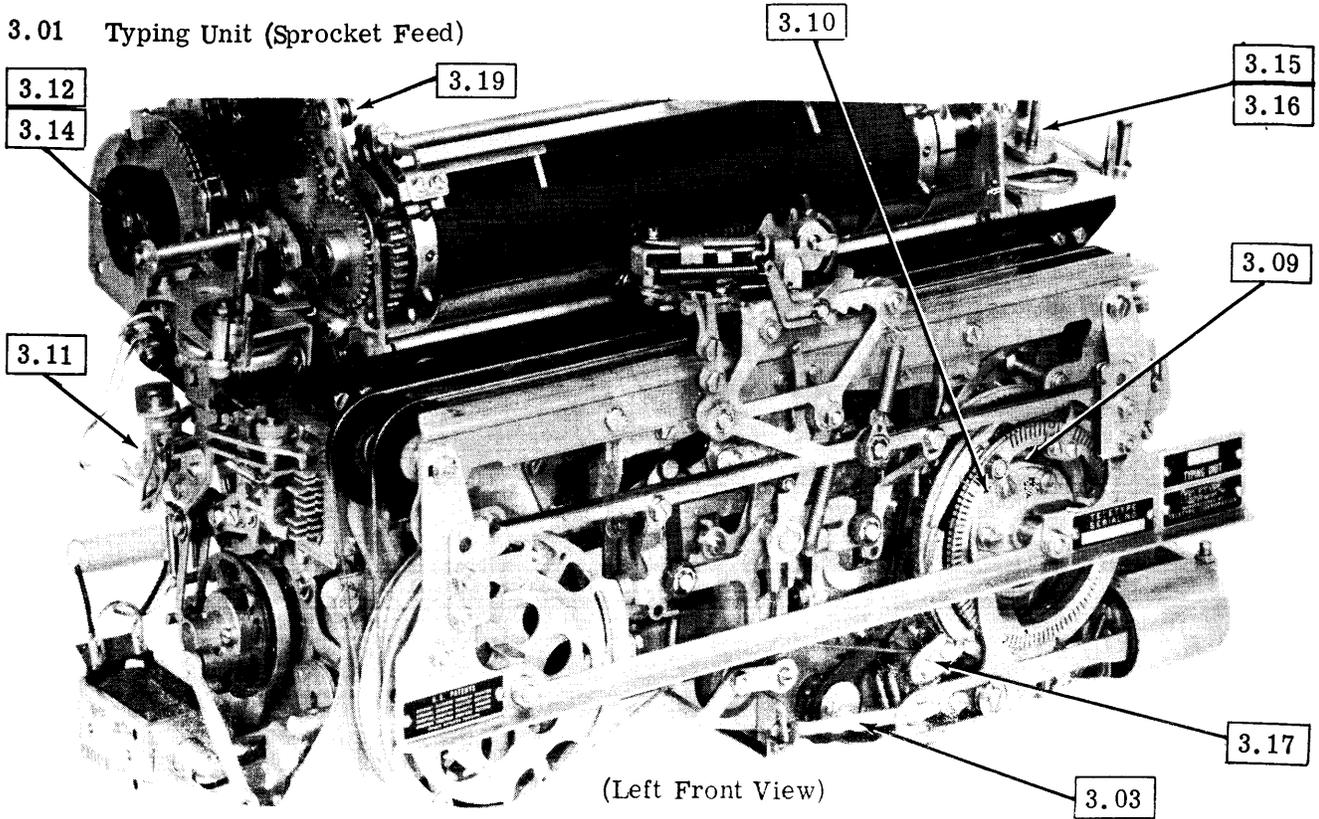


(Right Side View)

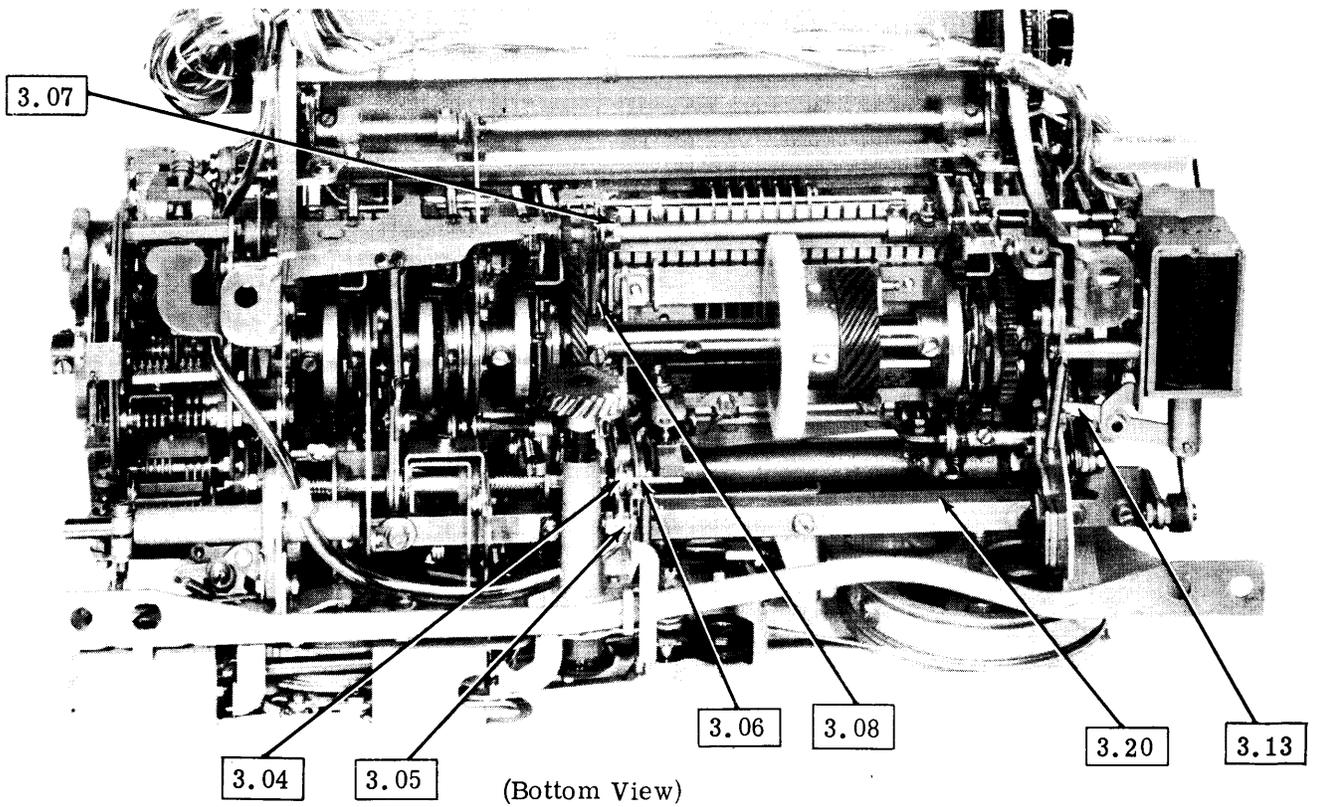
- | | | |
|----|--|------------------------------|
| O1 | Hooks (Each End) | Spring |
| O2 | Pivot
(2 Places) | Guide Bracket
Latch |
| O2 | Pivots
(2 Places) | Guide Bracket
Shaft |
| O1 | Hooks (Each End) | Spring |
| G | Pack Pin and
Spring Cavaties
(22 Places) | Sprocket With
Steel Pins |
| G | Light Coat
Do Not Pack
With Grease | Sprocket With
Delrin Pins |

3. VARIABLE FEATURES

3.01 Typing Unit (Sprocket Feed)

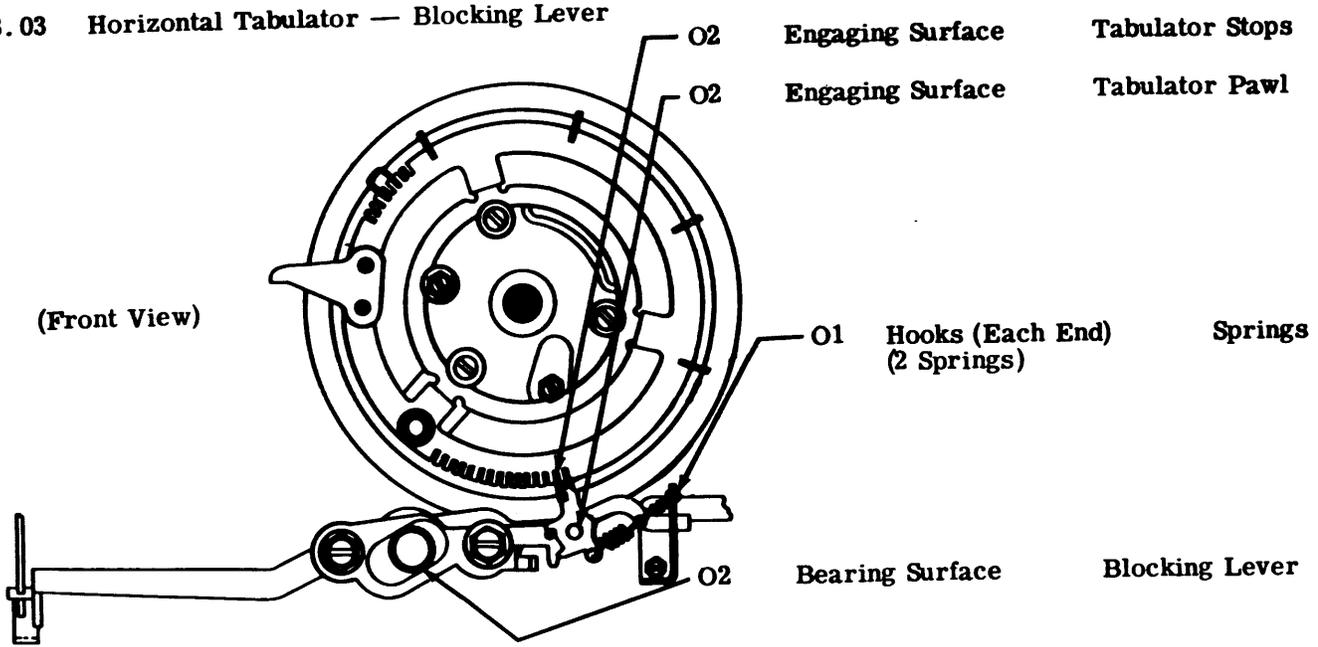


3.02 Horizontal Tabulator Area

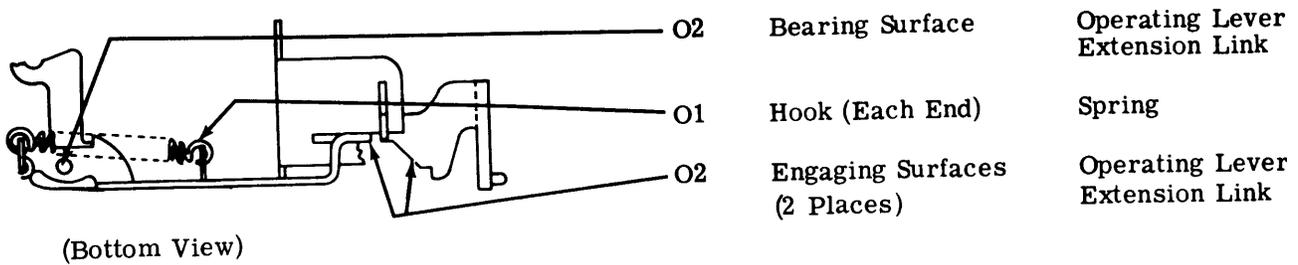


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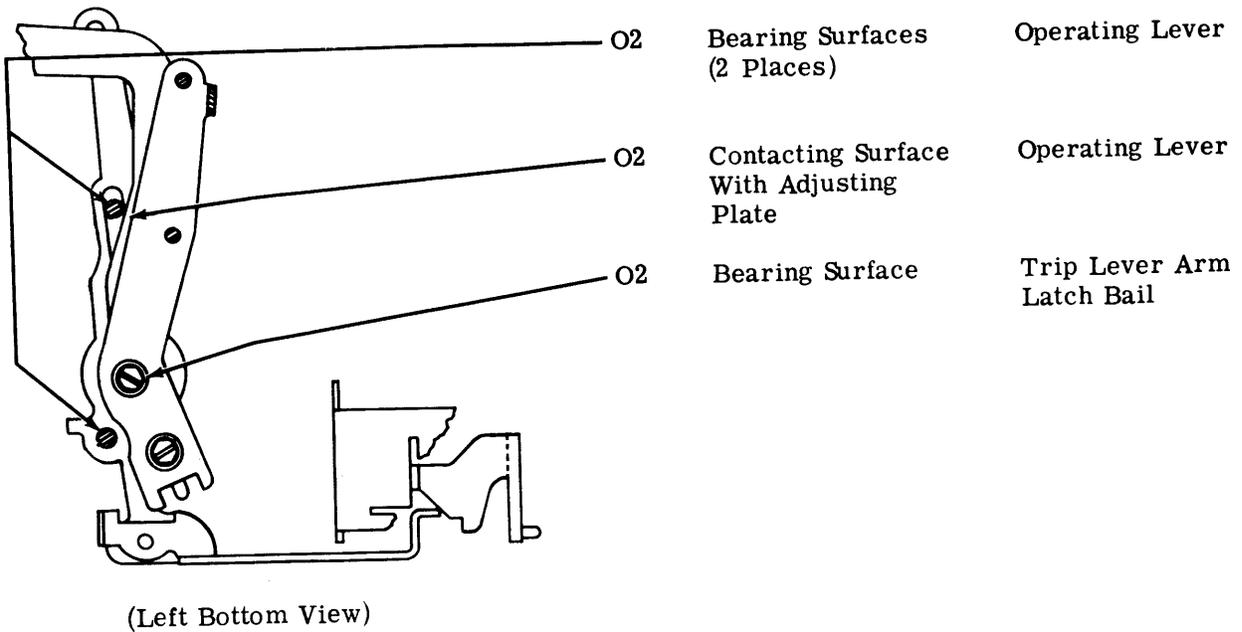
3.03 Horizontal Tabulator — Blocking Lever



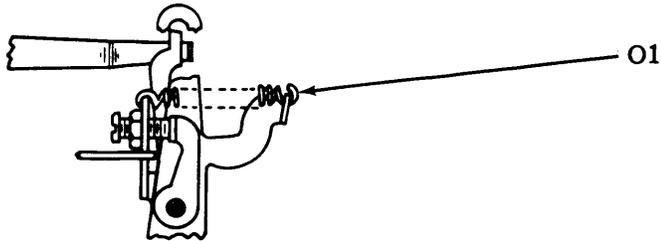
3.04 Horizontal Tabulator — Slide Arm



3.05 Horizontal Tabulator — Operating Lever



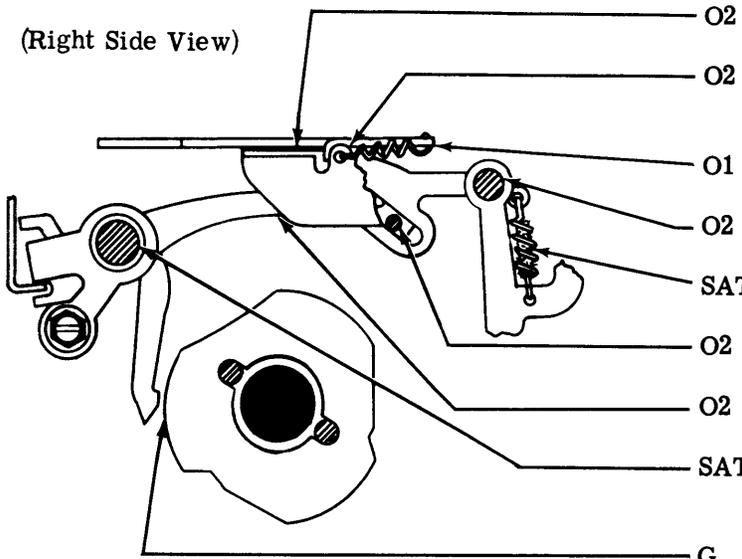
3.06 Horizontal Tabulator — Latch Bail



(Left Side View)

O1	Hooks (Each End)	Latch Bail Spring
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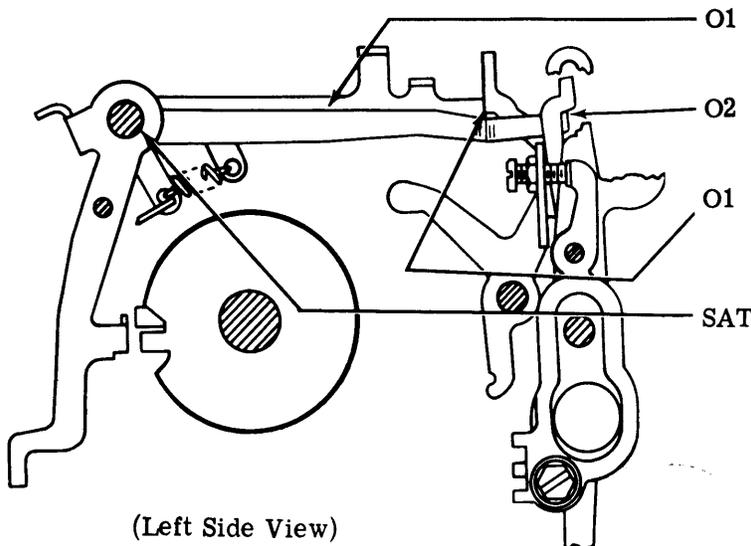
3.07 Horizontal Tabulator — Operating Lever (continued)



(Right Side View)

O2	Guide Surface	Operating Lever
O2	Contact With Slide Arm	Operating Lever
O1	Hooks (Each End)	Slide Arm Spring
O2	Bearing Surface	Operating Lever
SAT	Felt Wick	Spring
O2	Camming Surface	Operating Lever
O2	Contact Surface	Operating Lever
SAT	Felt Washers	Stripper Bail Shaft
G	Camming Surface	Spacing Clutch Restoring Cam

3.08 Horizontal Tabulator — Intermediate Bail

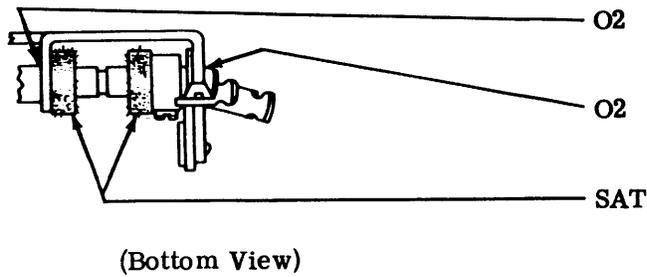


(Left Side View)

O1	Contact Surface Trip Lever Arm	Intermediate Bail
O2	Contact Surface	Spacing Trip Lever Arm
O1	Contact Surface Spacing Trip Lever	Intermediate Bail
SAT	Felt Washer	Trip Lever Arm Shaft

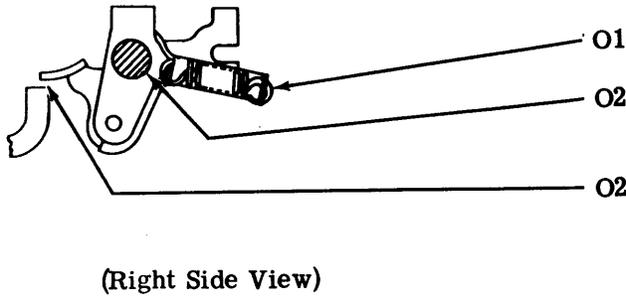
SECTION 574-220-701TC

3.09 Horizontal Tabulator — Bail Extension Arm



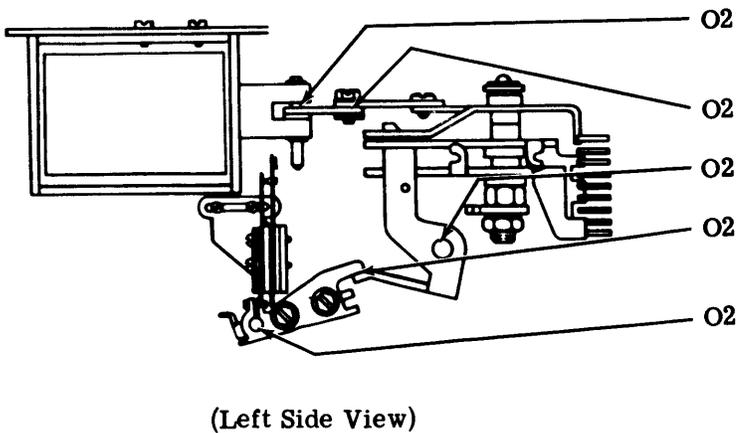
- | | | |
|-----|--------------------------|-------------------------------|
| O2 | Bearing Surface | Spacing Cut-Out Transfer Bail |
| O2 | Contact Surface | Spacing Cut-Out Transfer Bail |
| SAT | Felt Washers (2 Washers) | Transfer Bail Stud |

3.10 Spacing Cut-Out Transfer Bail



- | | | |
|----|------------------|--------------------|
| O1 | Hooks (Each End) | Spring |
| O2 | Bearing Surface | Bail Extension Arm |
| O2 | Contact Surface | Bail Extension Arm |

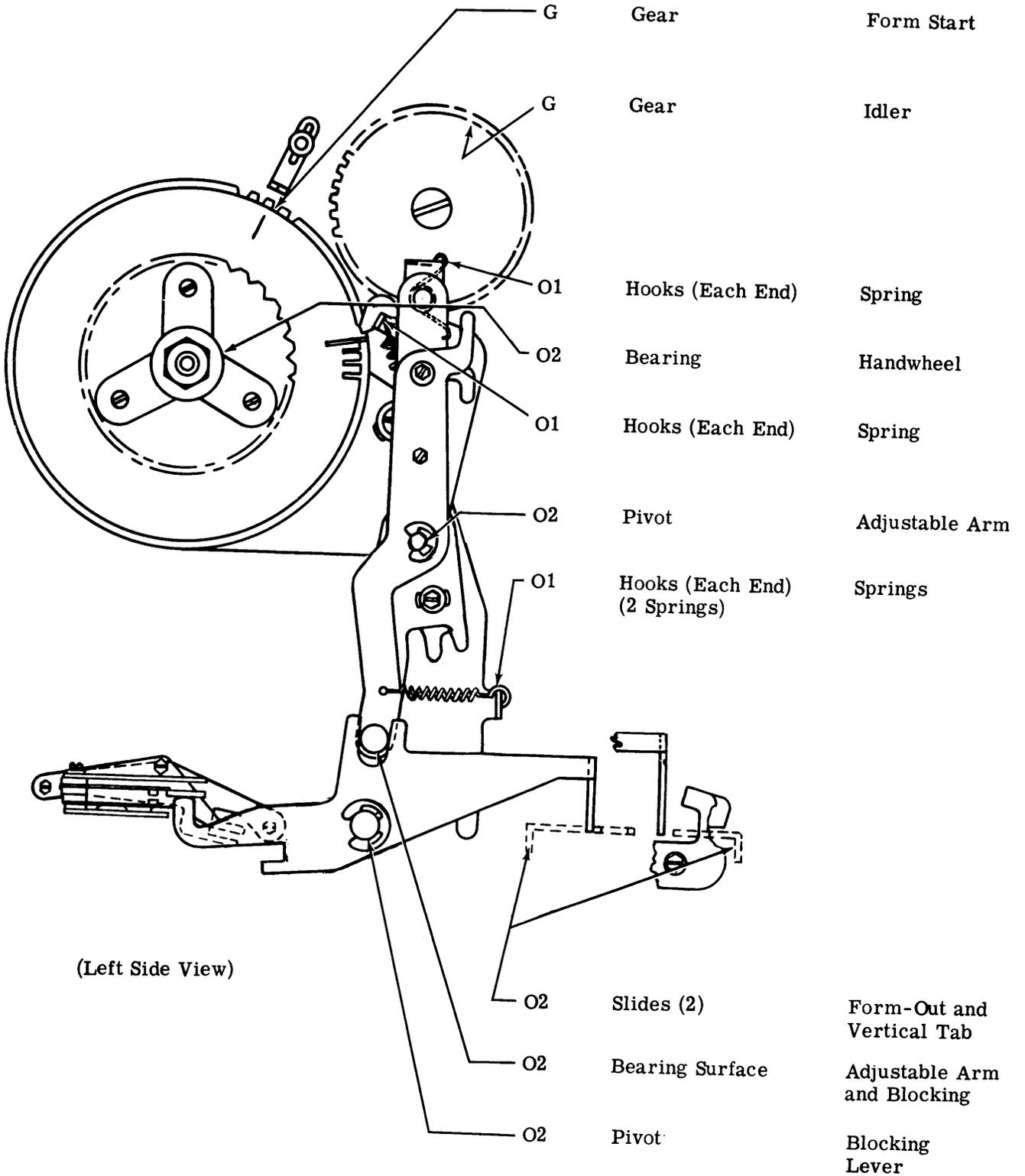
3.11 Print-Nonprint Solenoid Mechanism



- | | | |
|----|------------------|-------------------------|
| O2 | Pivot Point | Solenoid Plunger |
| O2 | Pivot Point | Extension Link |
| O2 | Pivot Point | Blocking Bail |
| O2 | Blocking Surface | Blocking Bail Extension |
| O2 | Pivot Point | Trip Arm |

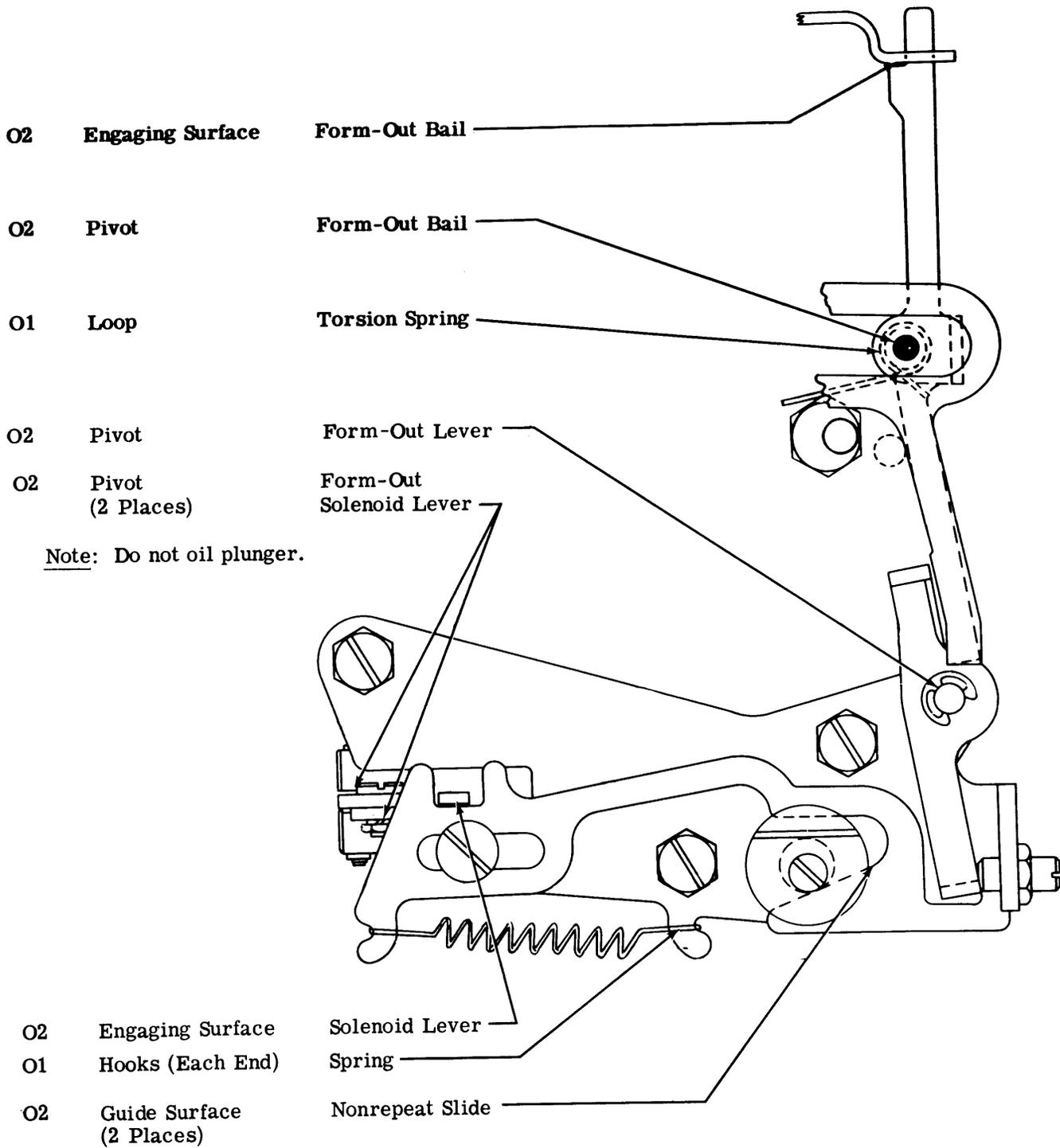
Note: Do not oil the cylindrical surface or pole face of solenoid plunger.

3.12 Vertical Tabulator and Transmitter Distributor Control Mechanism



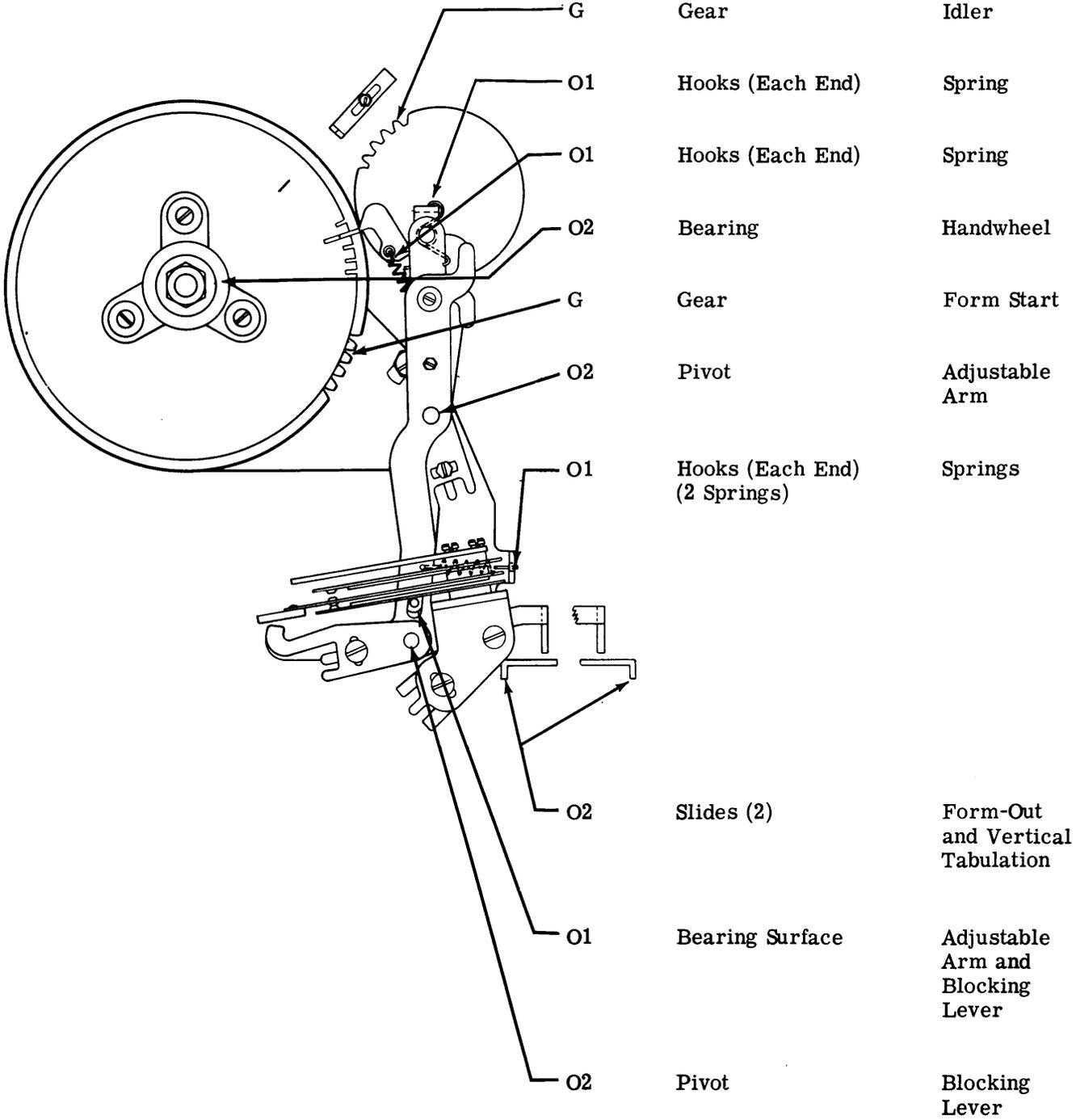
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3.13 Form-Out Mechanism



(Left Frame Viewed From Right Rear)

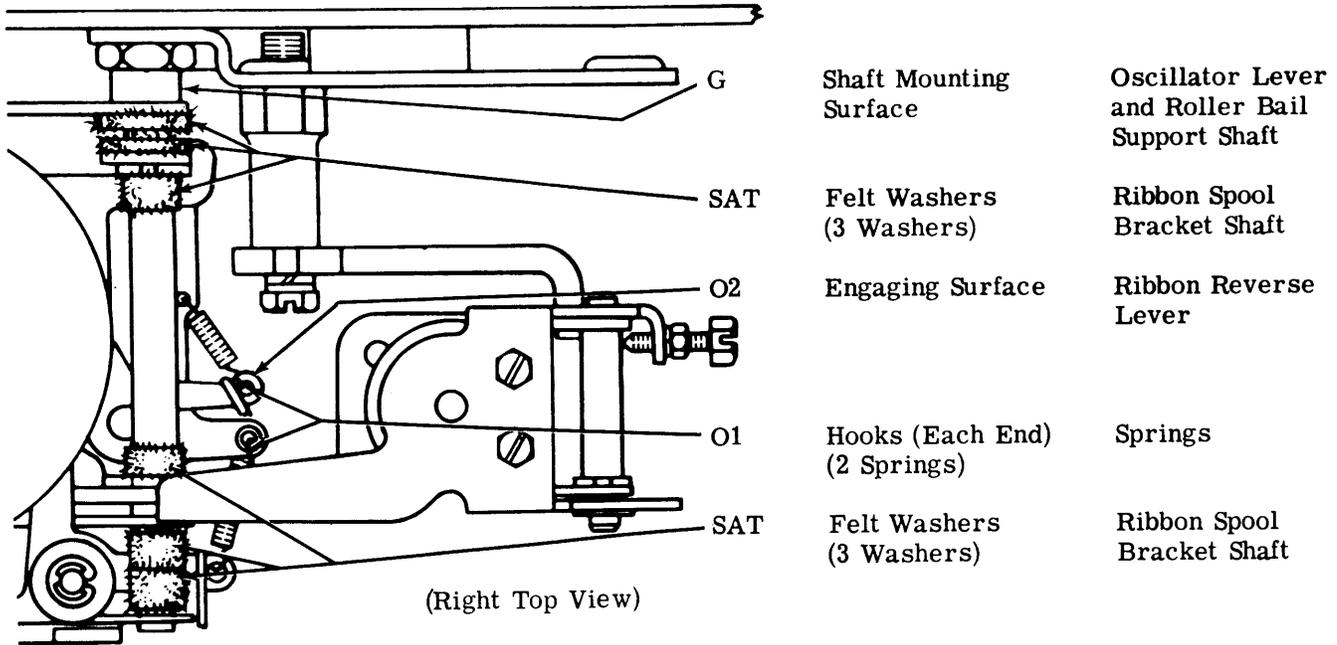
3.14 Vertical Tabulator Mechanism (For Switch Network Service)



(Left Side View)

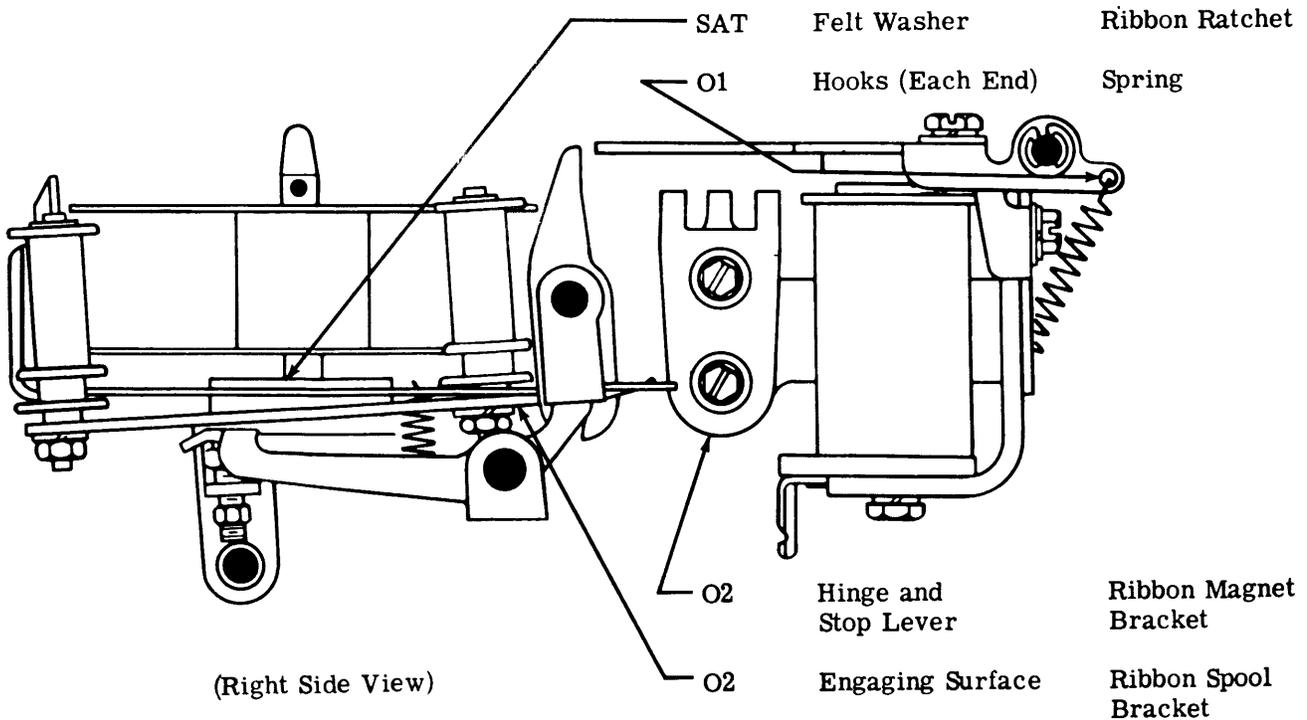
3.15 Two Color Ribbon Shift Mechanism — Oscillating Lever

Note: Photograph reference shows general area of this mechanism and not the actual mechanism.

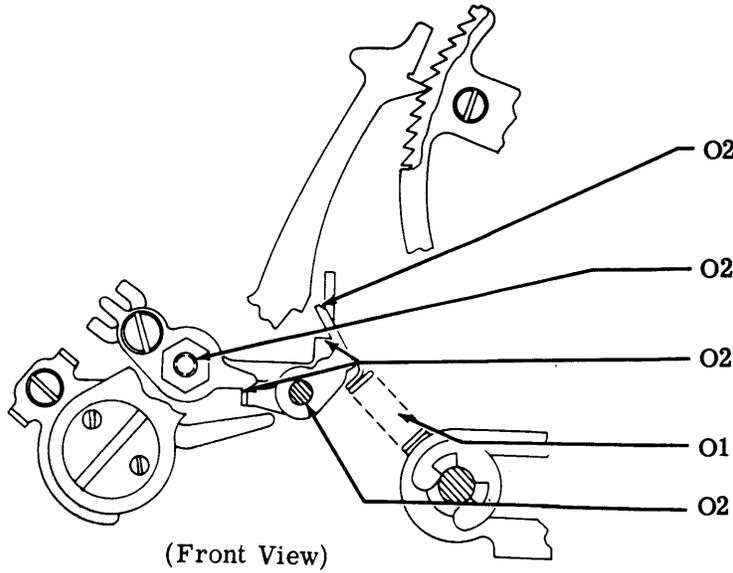


3.16 Two Color Ribbon Shift Mechanism — Ribbon Operating Mechanism

Note: Photograph reference shows general area of this and not the actual mechanism.

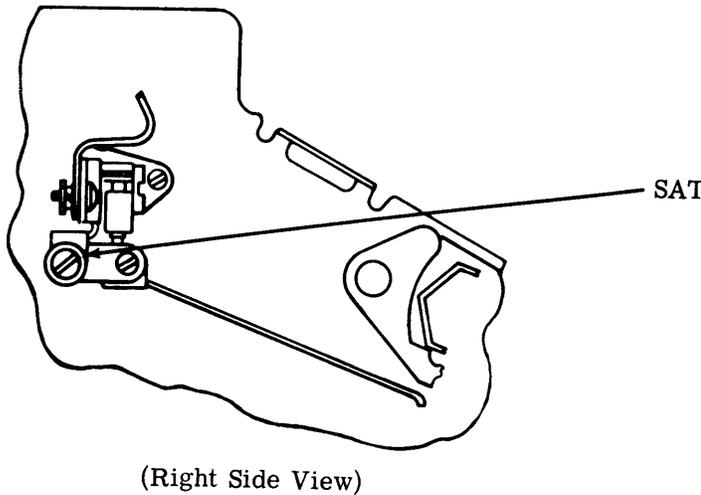


3.17 Local Backspace Mechanism



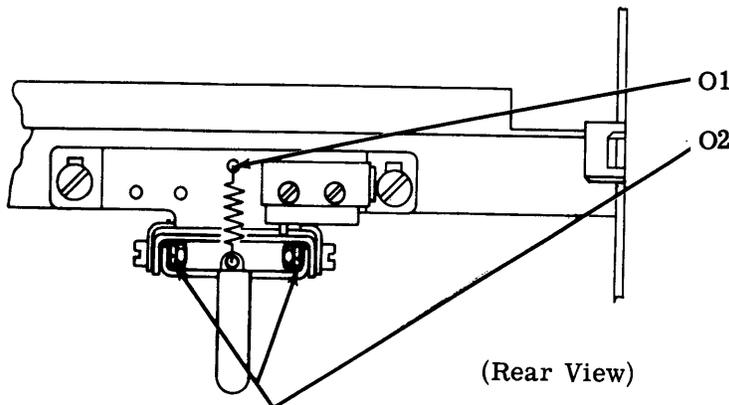
- O2 Engaging Surface Backspace Camming Bail
- O2 Bearing Surface Adjusting Plate
- O2 Engaging Surfaces (2 Places) Intermediate Arm
- O1 Hooks (Each End) Spring
- O2 Bearing Surface Backspace Camming Bail

3.18 Paper-Out Alarm Mechanism (Friction Feed)



Note: See Figure 2 for location of this mechanism.

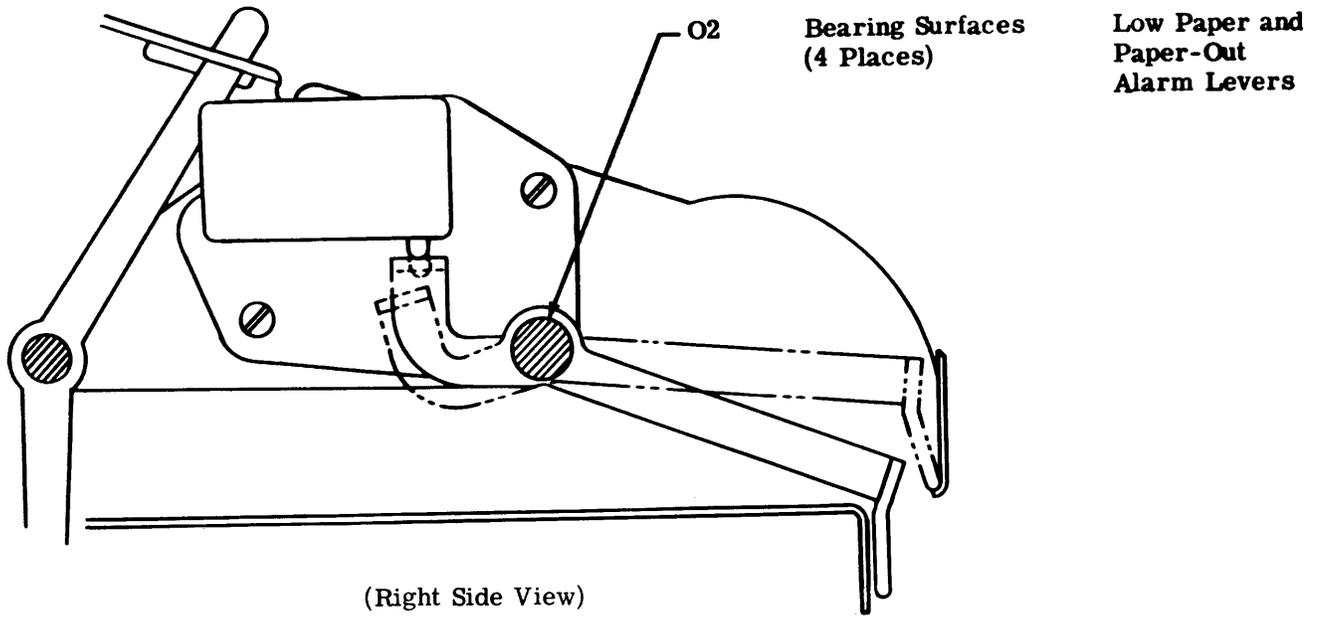
- SAT Felt Washer Switch Bracket



- O1 Hooks (Each End) Spring
- O2 Pivot Points (2 Places) Lever Bracket

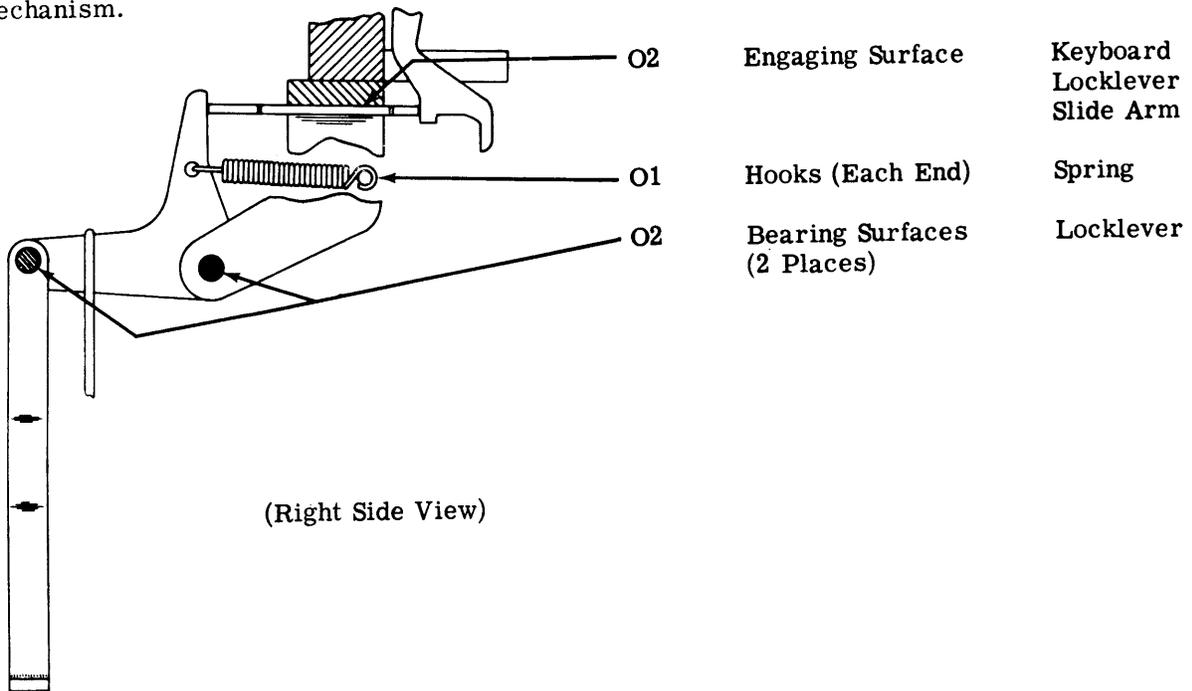
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3.19 Low Paper and Paper-Out Alarm Mechanism (Sprocket Feed)

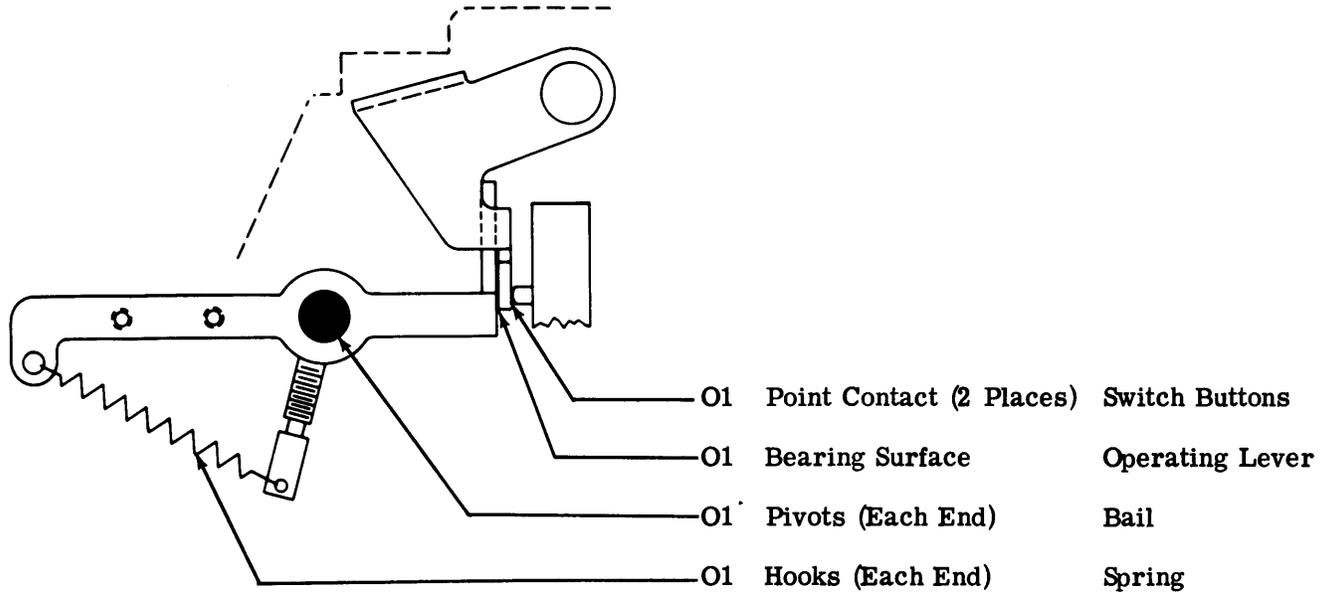


3.20 Keyboard Lock Mechanism

Note: Photograph reference shows general area of this mechanism and not the actual mechanism.



3.21 Paper Jam Alarm (Sprocket Feed)



(Right Side View)