

33 TYPING UNIT
LUBRICATION

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Function shaft area	6	1.01 This section provides lubrication instructions for the 33 typing unit. It is reissued to add new lubrication interval require- ments for the typing unit. Marginal arrows indi- cate changes and additions.	
Intermediate gears	6	1.02 The general lubrication areas are illus- trated by photographs. The specific points to receive lubricant are indicated on line drawings with appropriate textual instructions. Line drawings and textual instructions follow each photograph and are keyed to the photograph by paragraph numbers.	
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1.03 Thoroughly lubricate the typing unit, but avoid overlubrication that might permit the lubricant to drip or be thrown onto adjacent parts. Saturate all felt washers and oilers with oil, and apply oil to each end of all bearings.

1.04 Initial lubrication of the typing unit should be completed just prior to placing it into service. The lubrication intervals for the tape punch are similar to the lubrication intervals of the set. The lubrication intervals are dictated by the hours of use (including idle time) on a daily basis. The following charts and notes list the appropriate lubrication intervals.

LUBRICATION INTERVALS IN WEEKS
BASED ON 5-DAY WEEK (Note 1)

NEWLY INSTALLED EQUIPMENT			
SPEED	DAILY USE		
	0 TO 8 HOURS	8 TO 16 HOURS	16 TO 24 HOURS
All Speeds	3 Weeks	2 Weeks	1 Week

REGULAR LUBRICATION			
SPEED	DAILY USE		
	0 TO 8 HOURS	8 TO 16 HOURS	16 TO 24 HOURS
60 WPM	39 Weeks	26 Weeks	13 Weeks
100 WPM	26 Weeks	13 Weeks	6 Weeks

Note 1: Reduce lubrication interval 15 percent when usage is 6 days per week, and 30 percent when usage is 7 days per week.

Note 2: Sets operating at speeds between 60 and 100 wpm use lubrication requirements for the lower of the two speeds.

Note 3: The lubrication intervals are for the set as a whole — all components of the set should be lubricated.

Note 4: Just prior to storage all equipment should be thoroughly lubricated.

Note 5: Model 33 typing units having Serial Numbers 144,000 and above use the lubrication interval described in 1.04. Model 33 typing units having Serial Numbers below 144,000 should reduce the lubrication interval by 1/3 or 33 percent.

1.05 On occasion when the printer is disassembled, apply a coat of thoroughly mixed 50 percent KS7470 oil and 50 percent KS7471 grease at places indicated below.

- Selector Cam Surfaces (2.44)
- Spacing Gear Teeth (2.23)
- Codebar Pivot Shaft (2.17 and 2.18)
- Eccentric Cams (2.02 and 2.04)
- Stop Bail Adjusting Tab (2.11)
- Platen Shaft Bearings — Sprocket Feed Units only (2.49)
- Distributor Shaft Cam Roller (Early Design) or Stud (Late Design) (2.13)
- H-Lever (2.13)

Note 1: On occasion when the clutch is disassembled, lubricate the Internal Clutch Assemblies (2.02, 2.04, 2.44, and 2.53 on Form Feed Mechanisms only) as follows: Apply a thin coat of KS7471 grease at the loops of the clutch shoe lever spring, and lubricate the internal mechanism of the clutch with KS7470 oil.

Note 2: At regular lubrication intervals lubricate the clutch mechanism with KS7470 oil only.

1.06 The textual instructions that accompany the line drawings consist of abbreviated directions, specific lubrication points, and parts affected. The meanings of the abbreviated directions (symbols) follow:

<u>Symbol</u>	<u>Meaning</u>
D	Keep dry — no lubricant permitted.
G	Apply thin coat of grease (KS7471).
O	Oil (KS7470).

1.07 References to left, right, front, or rear, etc, consider the typing unit to be viewed from a position where the carriage area faces up and the selector area is located to the viewer's left.

CAUTION: DO NOT USE ALCOHOL, MINERAL SPIRITS, OR OTHER SOLVENTS TO CLEAN PLASTIC PARTS OR PARTS WITH PROTECTIVE -DECORATIVE FINISHES. NORMALLY, A SOFT, DRY CLOTH SHOULD BE USED TO REMOVE DUST, OIL, GREASE, OR OTHERWISE CLEAN PARTS OR SUB-ASSEMBLIES. IF NECESSARY, A SOFT CLOTH DAMPENED WITH SOAP OR MILD DETERGENT MAY BE USED.

AFTERWARDS, RINSE EACH CLEANED PART OR SUBASSEMBLY WITH SOFT, DAMP CLOTH AND BUFF WITH A SOFT, DRY CLOTH.

1.08 Tools and materials needed for teletypewriter lubrication are listed in Section 570-005-800TC.

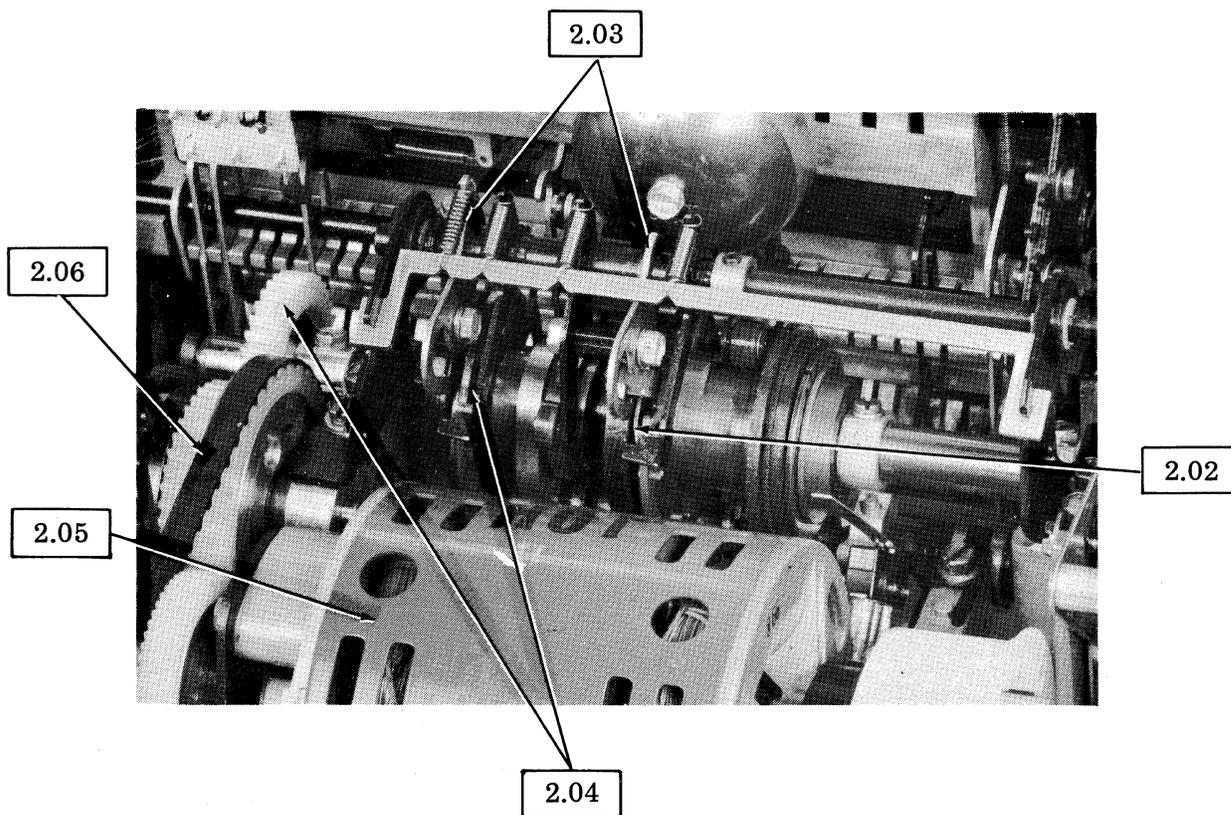
1.09 For disassembly and reassembly information, refer to Section 574-122-702TC.

CAUTION: ALL ELECTRICAL POWER MUST BE REMOVED FROM UNIT BEFORE LUBRICATING OR REMOVING COMPONENTS FOR LUBRICATION.

2. BASIC UNITS

COMMON MECHANISMS

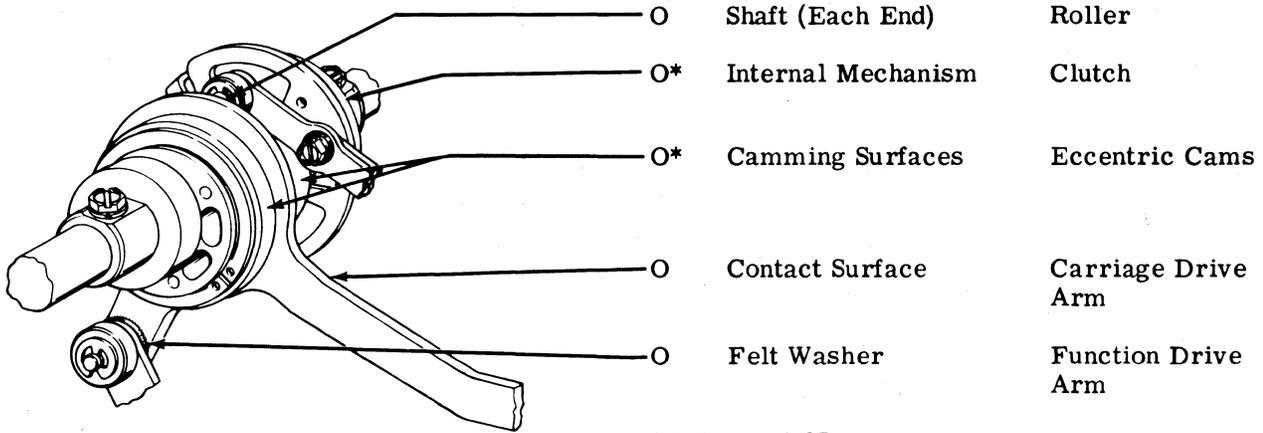
2.01 Main Shaft Area



(Rear View)

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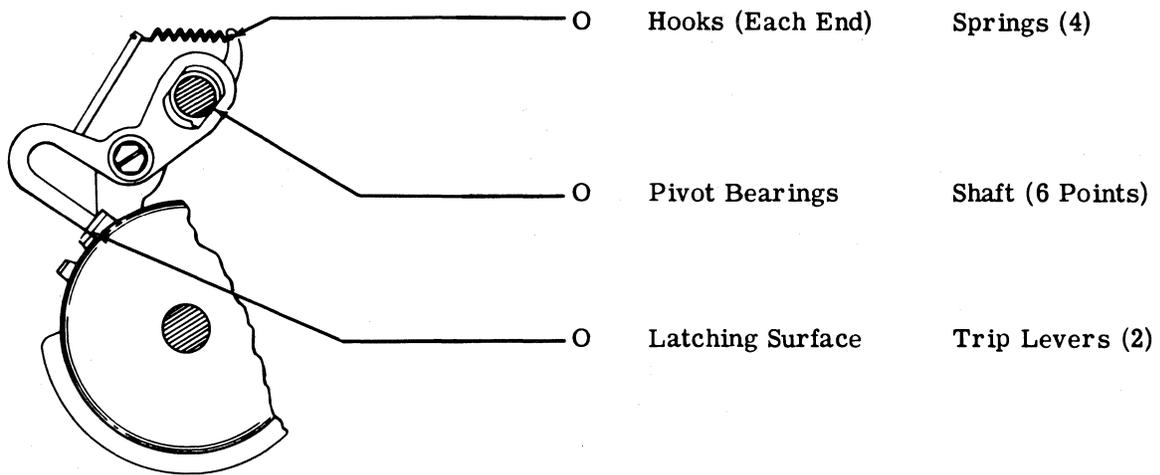
2.02 Function Clutch



*Refer to 1.05.

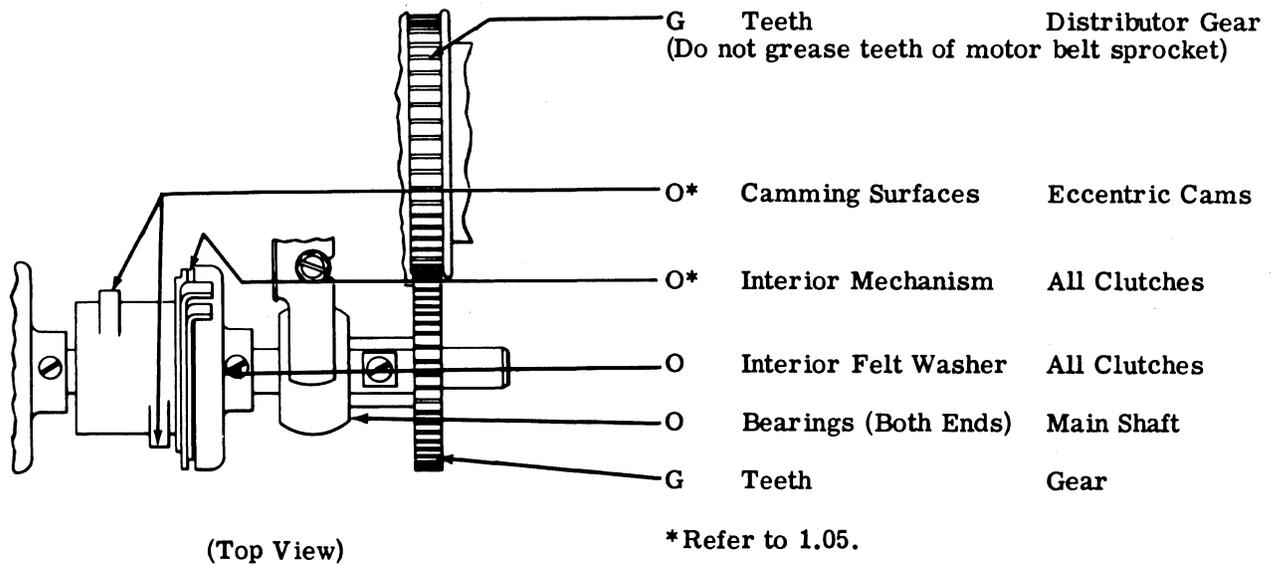
(Left Front View)

2.03 Trip Shaft

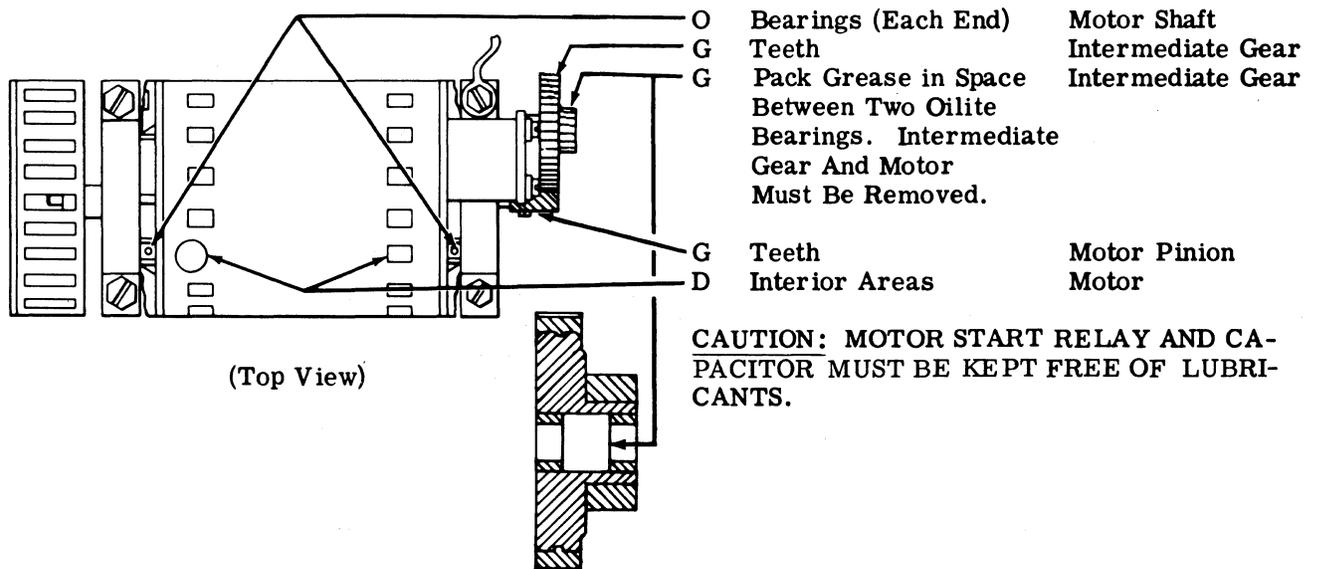


(Left Side View)

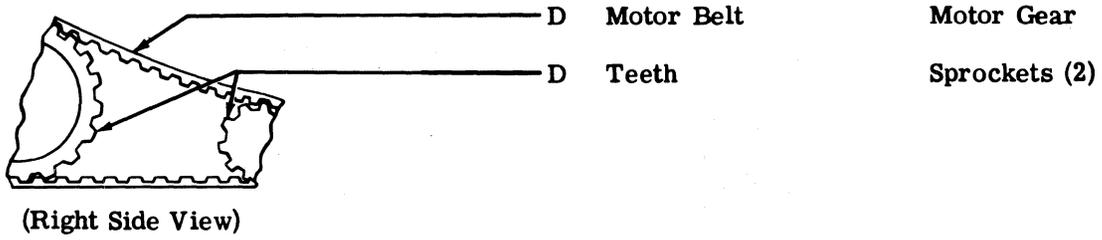
2.04 Codebar Clutch



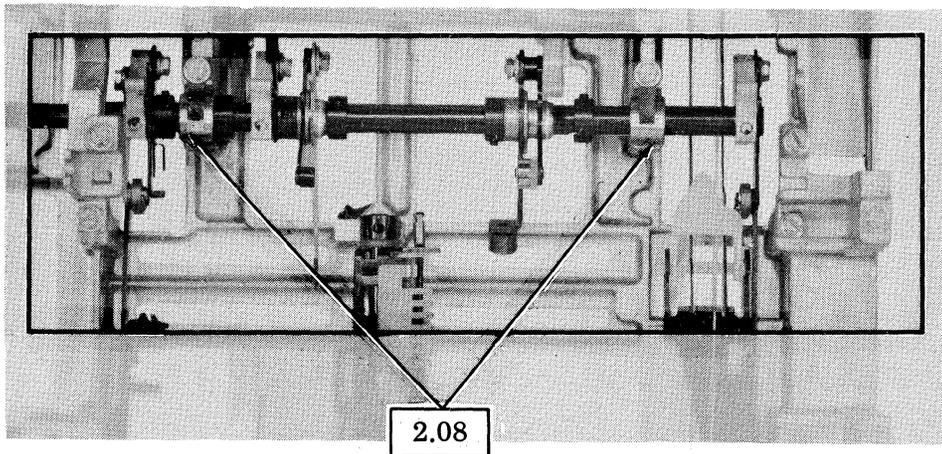
2.05 Motor Area



2.06 Intermediate Gears



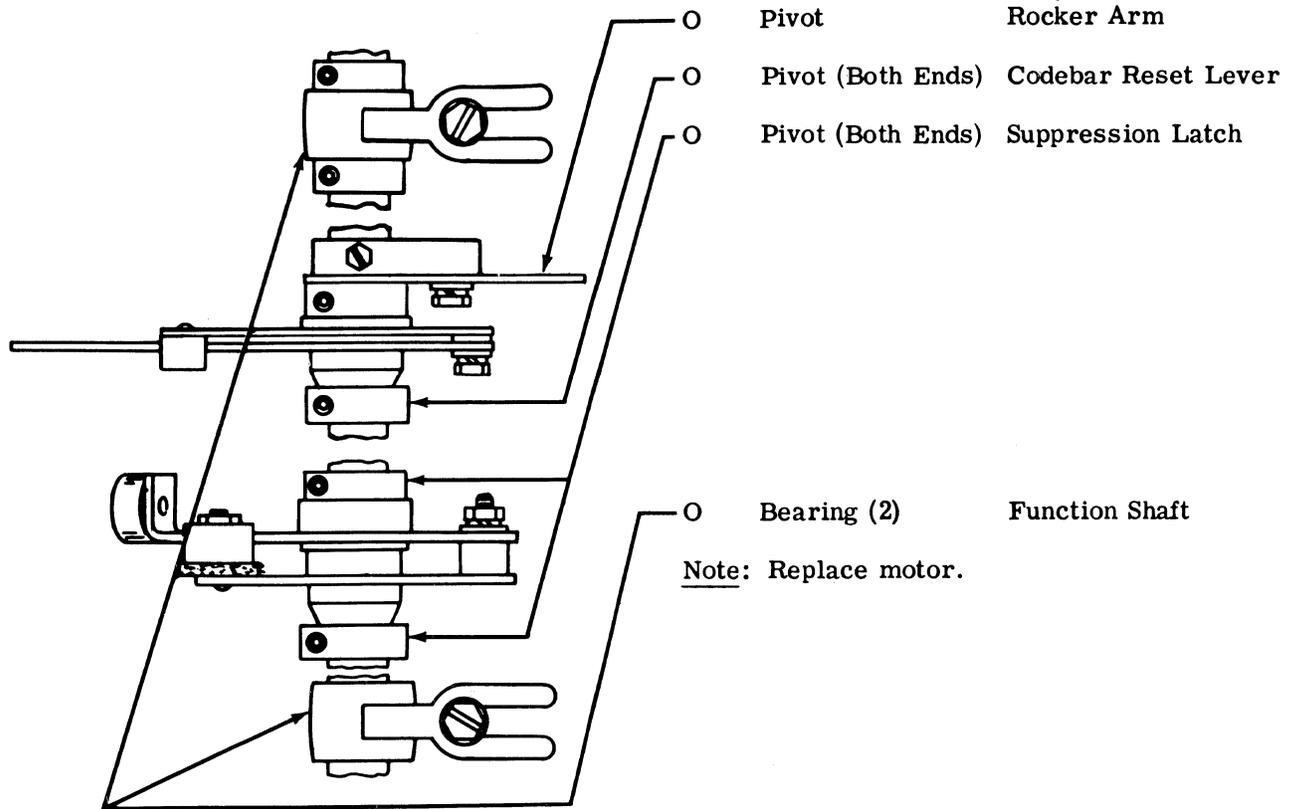
2.07 Function Shaft Area



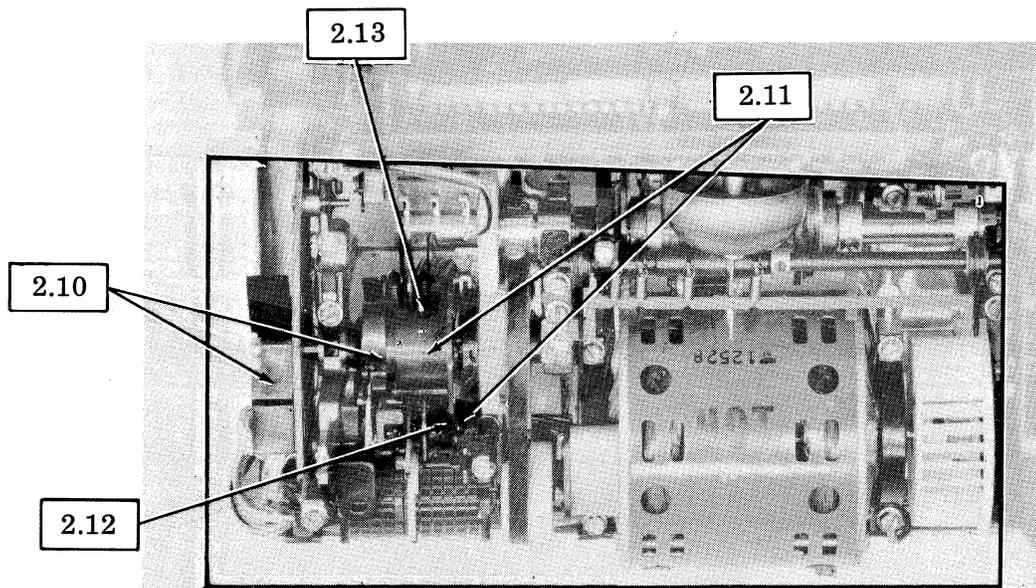
(Top View)

(Typing unit disassembled for illustration.)

2.08 Function Rocker Shaft

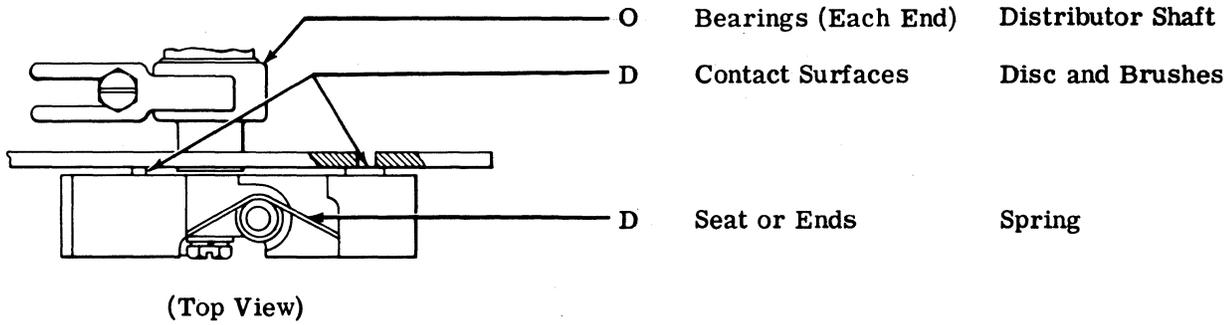


2.09 Distributor Area

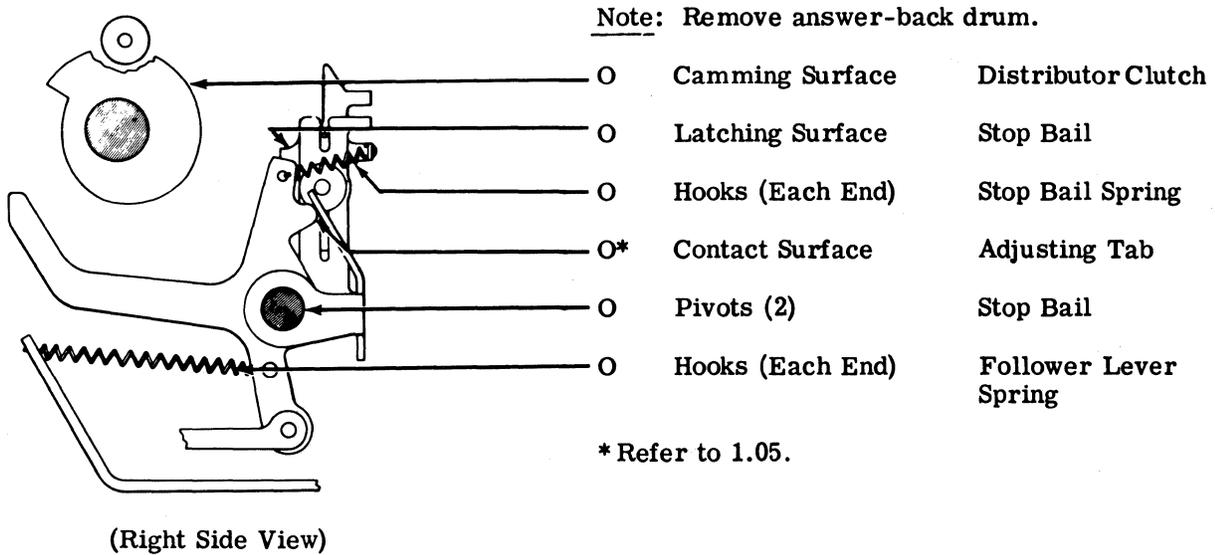


(Top View)

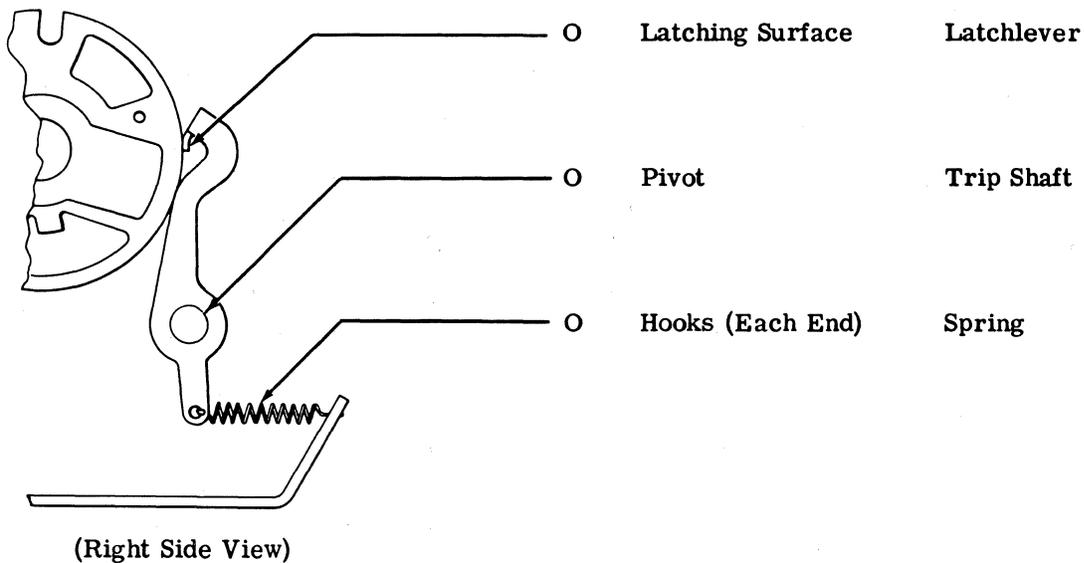
2.10 Disc and Brushes



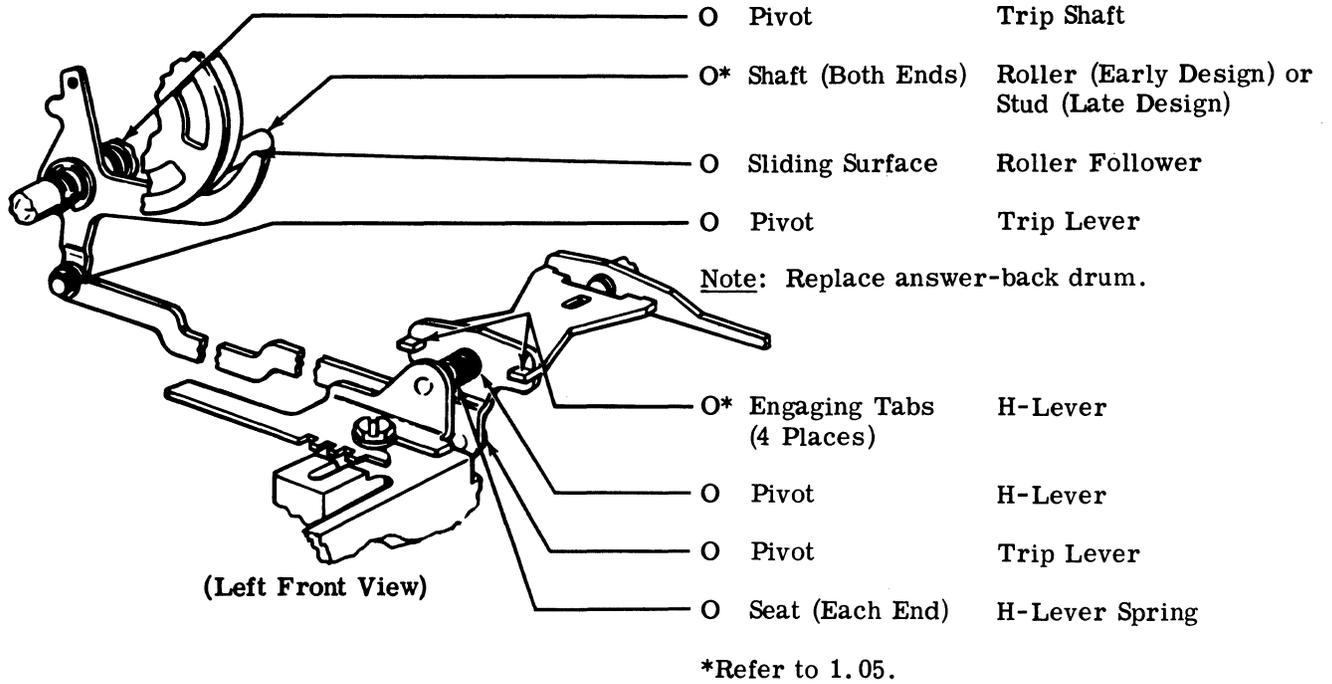
2.11 Stop Bail



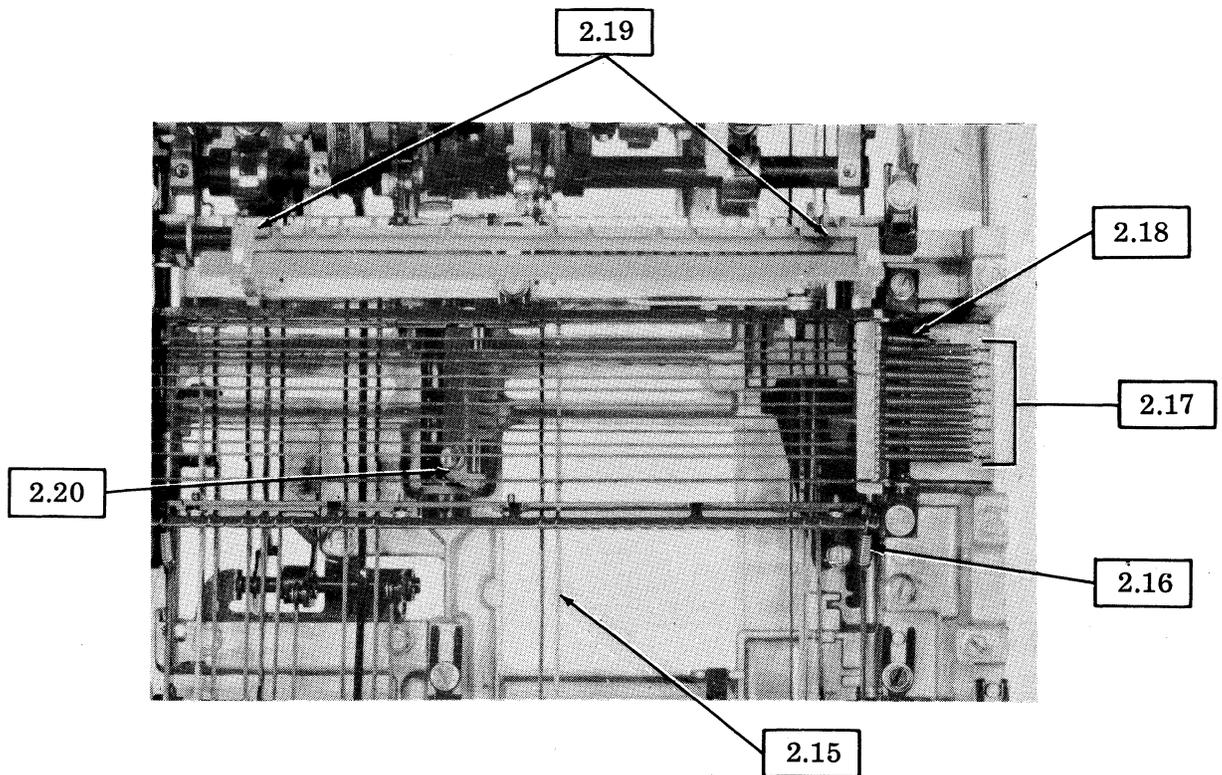
2.12 Latchlever



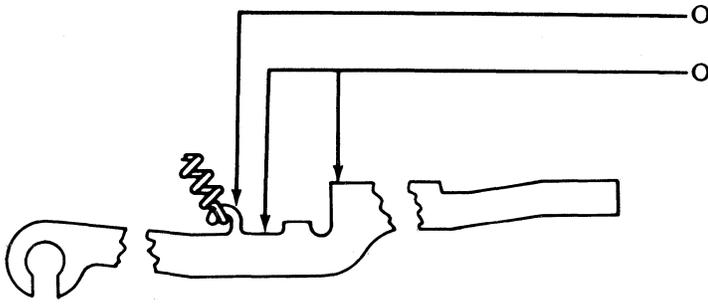
2.13 Trip Lever



2.14 Function Area



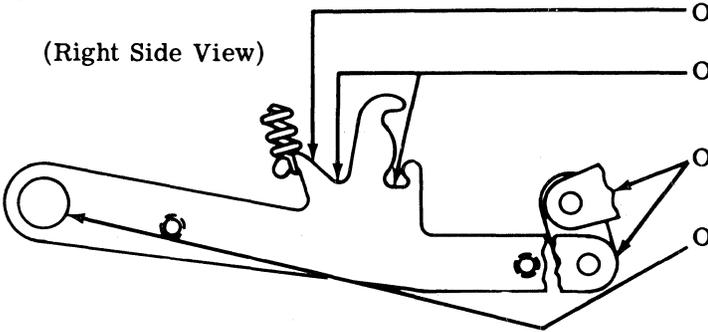
2.15 Function Levers



(Right Side View)

- O Hooks (Each End)
- O Engaging Surfaces
- O Springs
- O Function Levers

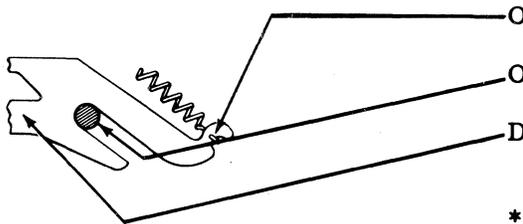
2.16 Stripper Drive Lever



(Right Side View)

- O Hooks (Each End)
- O Engaging Surfaces
- O Pivots
- O Felt Washers (2) (Each End of Shaft)
- O Springs
- O Stripper Drive Lever
- O Stripper Drive Link
- O Front Function Shaft

2.17 Codebars

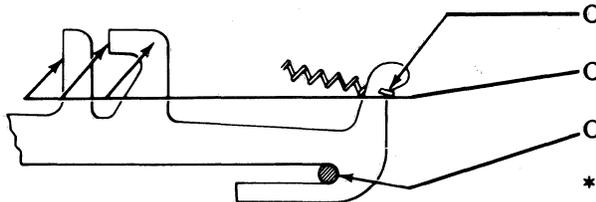


(Front View)

- O Hooks (Each End)
- O* Pivots
- O Area Between Codebars
- O Springs
- O Shaft

* Refer to 1.05.

2.18 Automatic Codebar

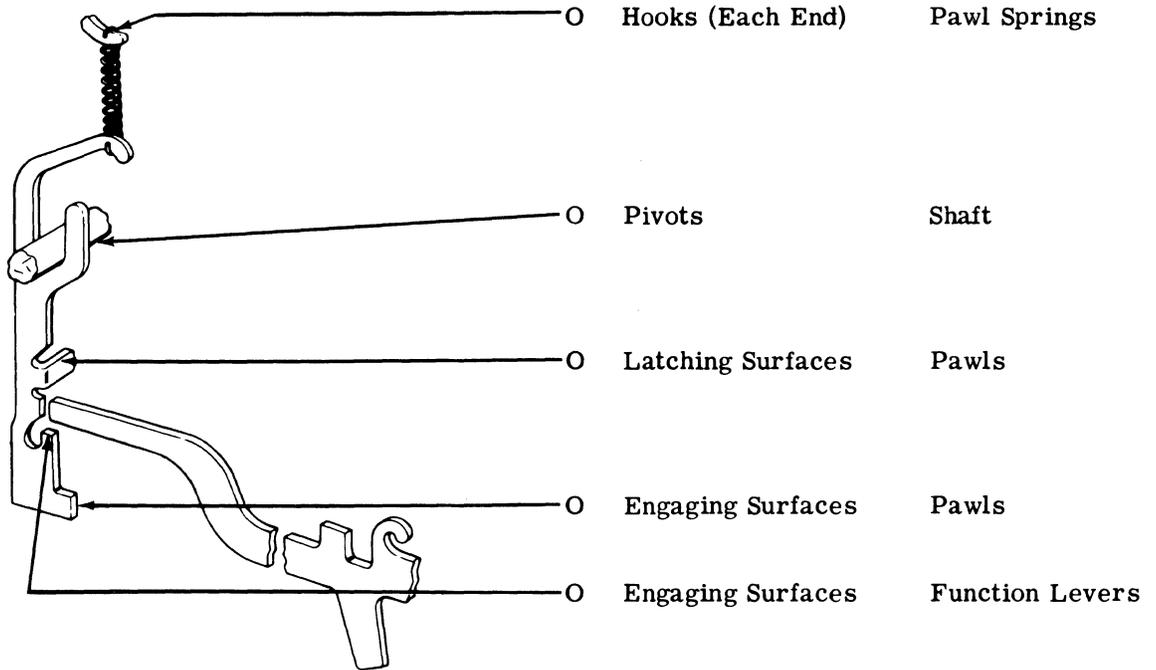


(Front View)

- O Hooks (Each End)
- O Blocking Contact
- O* Pivot
- O Spring
- O Tab (1 of 3)
- O Shaft

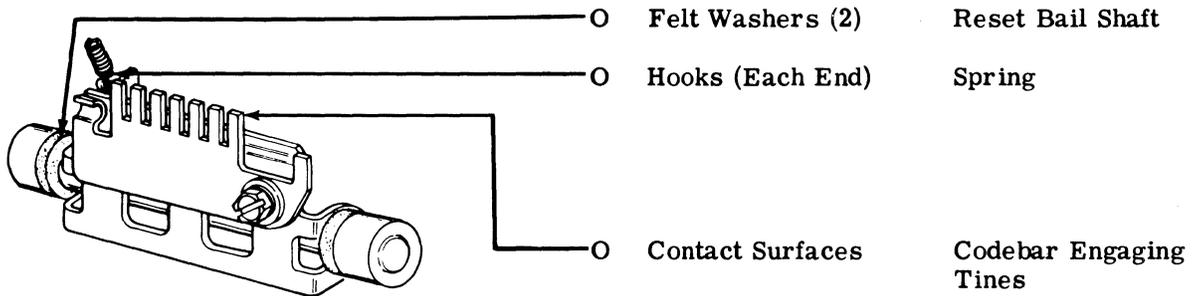
* Refer to 1.05.

2.19 Rocker and Pawls



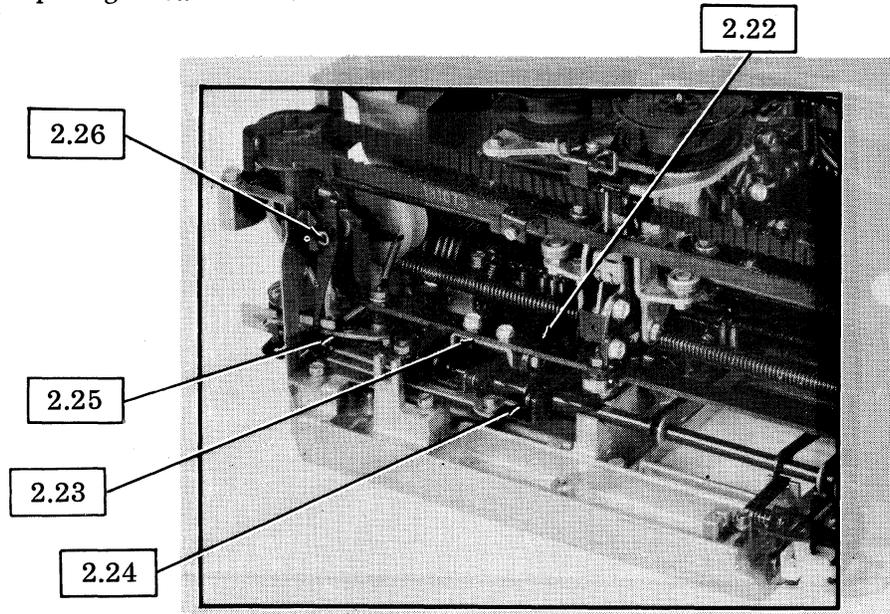
(Left Front View)

2.20 Reset Bail



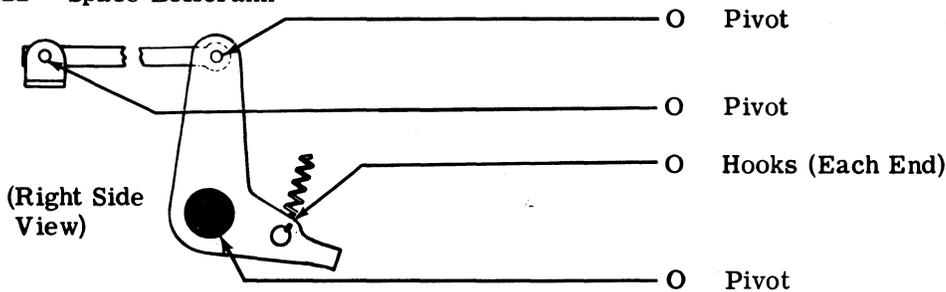
(Left Front View)

2.21 Spacing Area



(Left Front View)

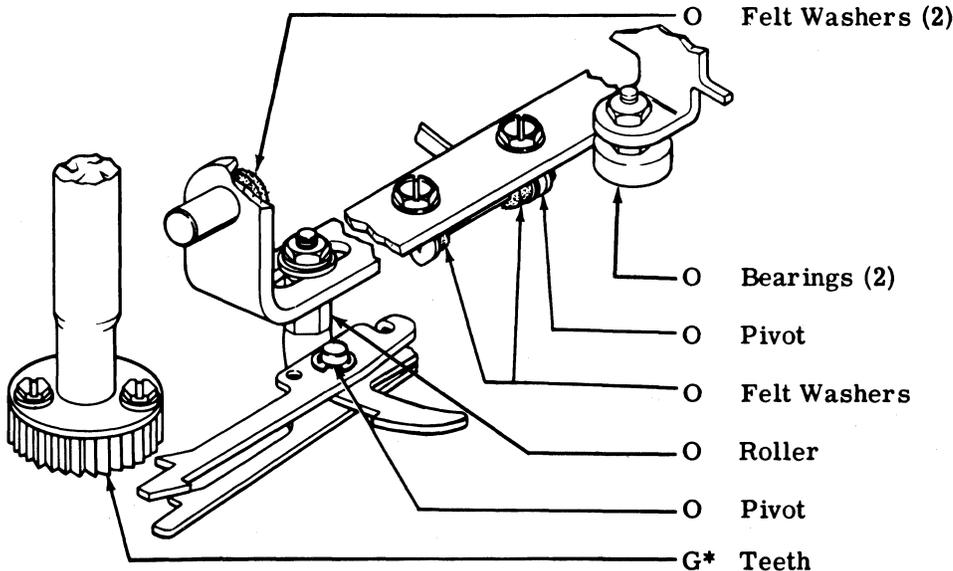
2.22 Space Bellcrank



(Right Side View)

- O Pivot Bellcrank
- O Pivot Spacing Lever
- O Hooks (Each End) Spring
- O Pivot Bellcrank

2.23 Drive Mechanism

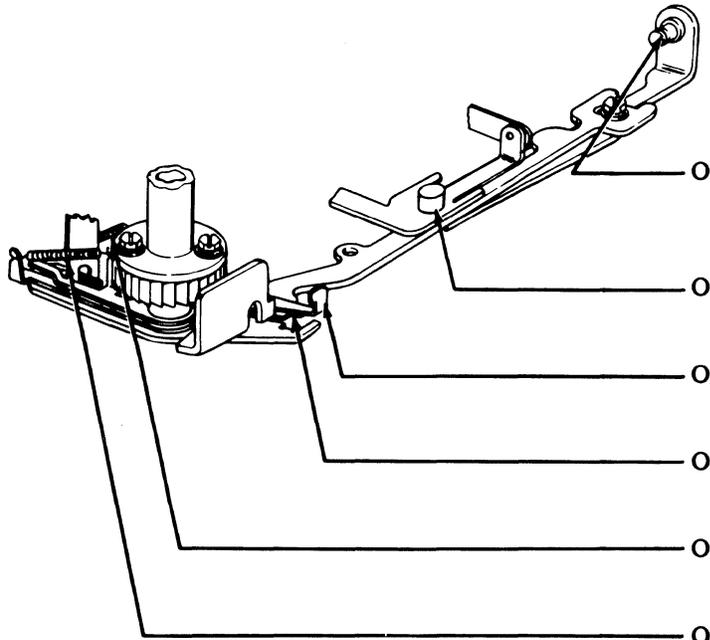


(Left Front View)

G* Teeth
*Refer to 1.05.

- O Felt Washers (2) Carriage Drive Bail
- O Bearings (2) Front Bearings
- O Pivot Drive Arm
- O Felt Washers Drive Arm Bail
- O Roller Drive Roller
- O Pivot Feed Pawl
- G* Teeth Spacing Gear

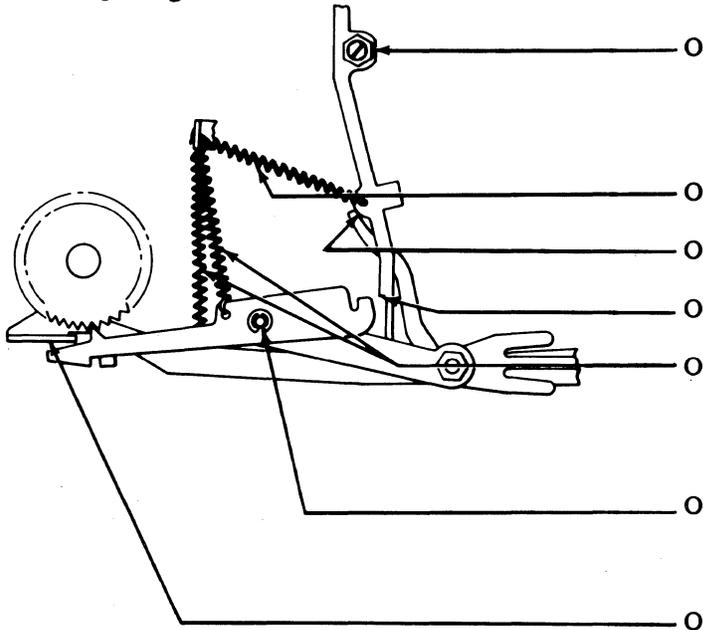
2.24 Carriage Return and Spacing Levers



- O Pivot Carriage Return Lever
- O Pivot Spacing Mechanism
- O Engaging Surface Latch
- O Latching Surface Latch
- O Hooks (Each End) Latch Spring
- O Hooks (Each End) Latch Spring

(Left Front View)

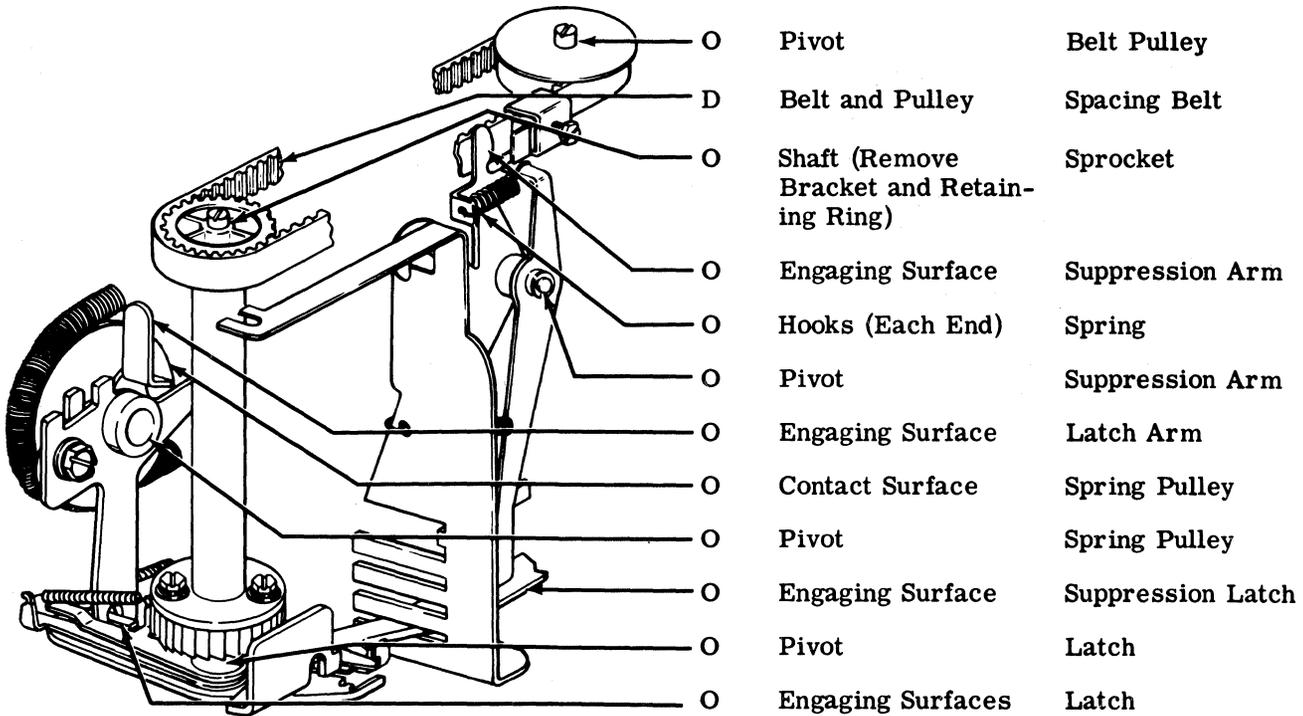
2.25 Spacing Mechanism - 1



- O Pivot Eccentric
- O Hooks (Each End) Spring
- O Engaging Surface Spacing Lever
- O Latching Surface Suppression Lever
- O Hooks (Each End) Springs (3)
- O Pivot Feed Pawl
- O Engaging Surfaces Feed and Check Pawls

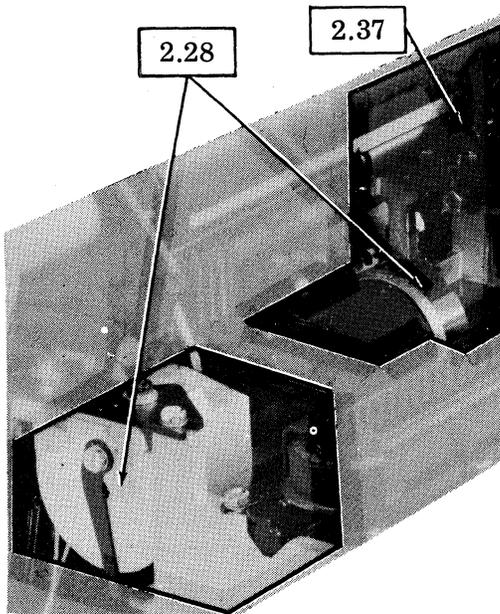
(Top View)

2.26 Spacing Mechanism - 2

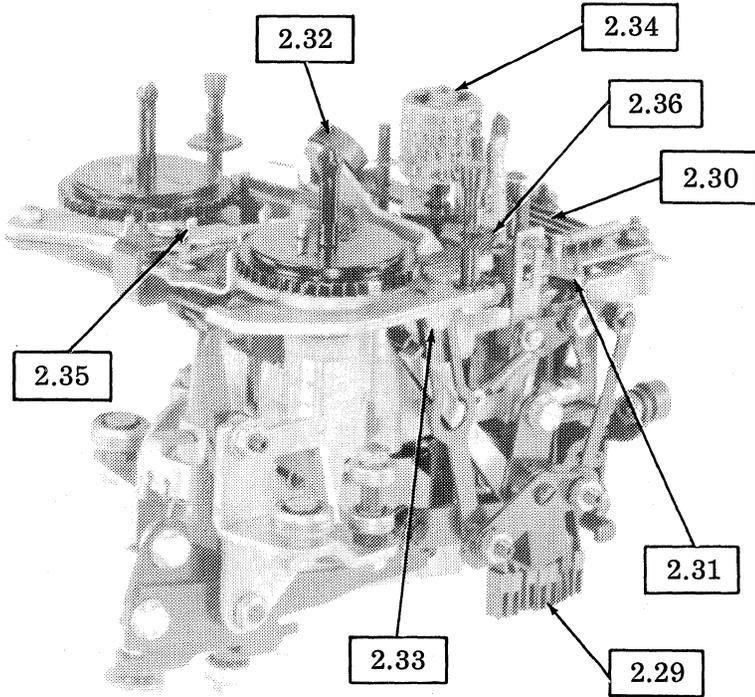


(Left Front View)

2.27 Carriage Area



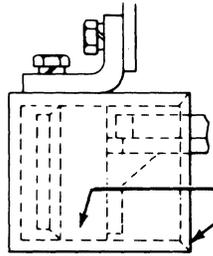
(Left Front View)



(Right Front View)

Note: Remove ribbon mechanism and carriage return spring before lubricating. For instructions, see the appropriate disassembly and reassembly section.

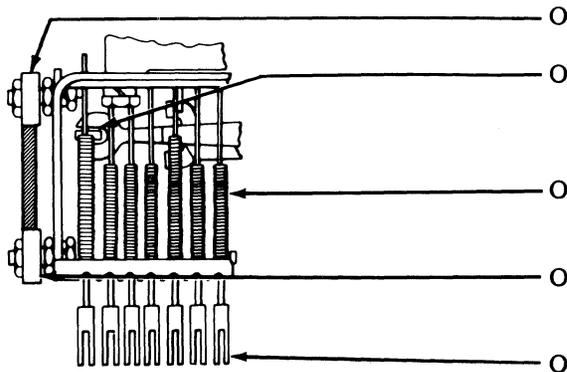
2.28 Dashpot



(Front View)

Sliding Surfaces Dashpot and
Cylinder
(Apply with oil dampened cloth. Too
much lubricant will cause malfunction.)

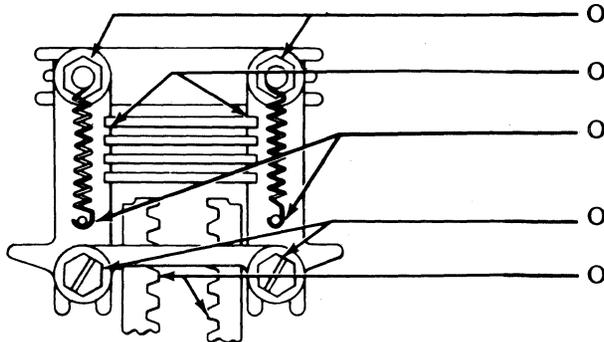
2.29 Slides



(Left Side View)

Bearing Rear Roller (Top)
Engaging Surface Suppression Latch
Fork
Seats (Each End) Slide Guide Springs
Bearing Rear Roller
(Bottom)
Codebar Contacts Slides

2.30 Slide Guideplates

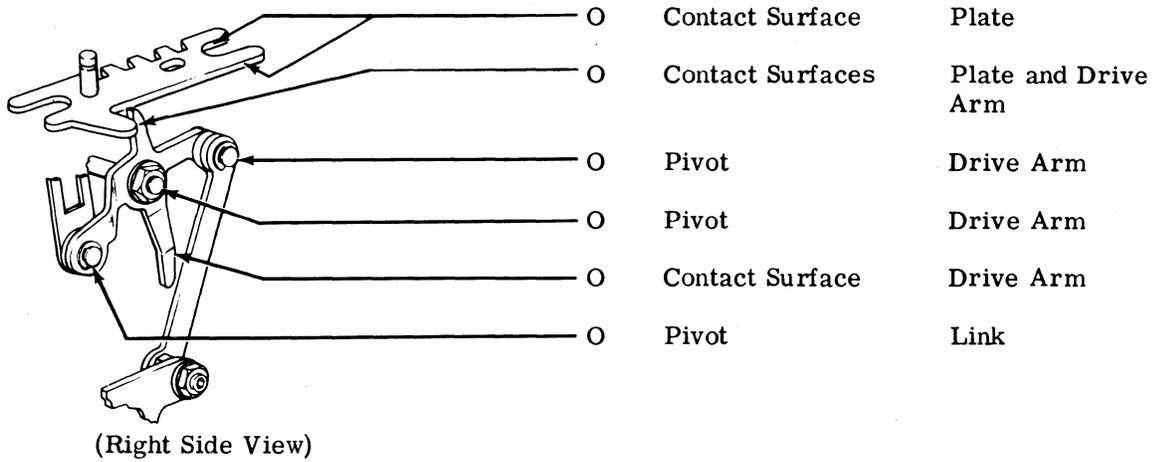


(Top View)

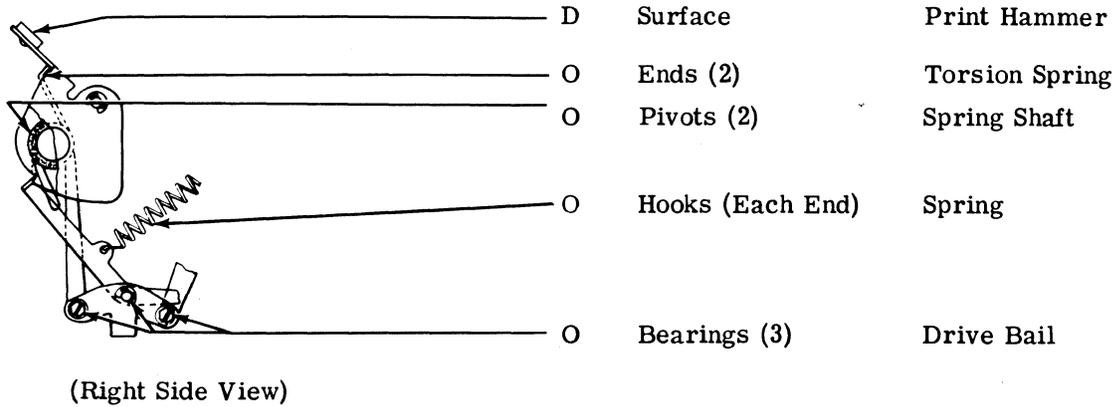
Sliding Contacts Stop Plate
Engaging Surfaces Stop Slides
Hooks (Each End) Springs
Contact Points Slide Guides
Teeth Pinion Racks

SECTION 574-122-701TC

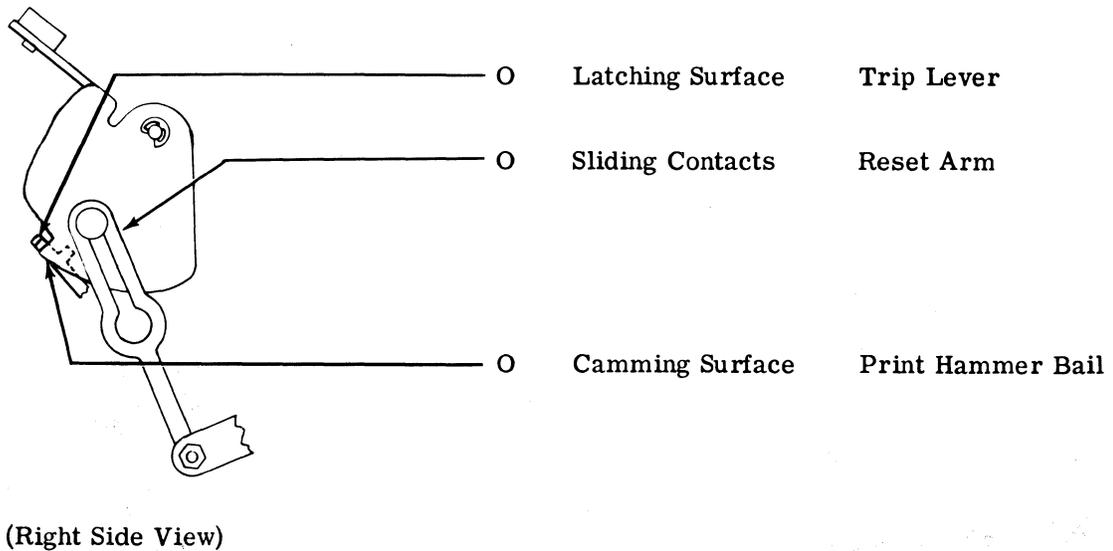
2.31 Drive Arm



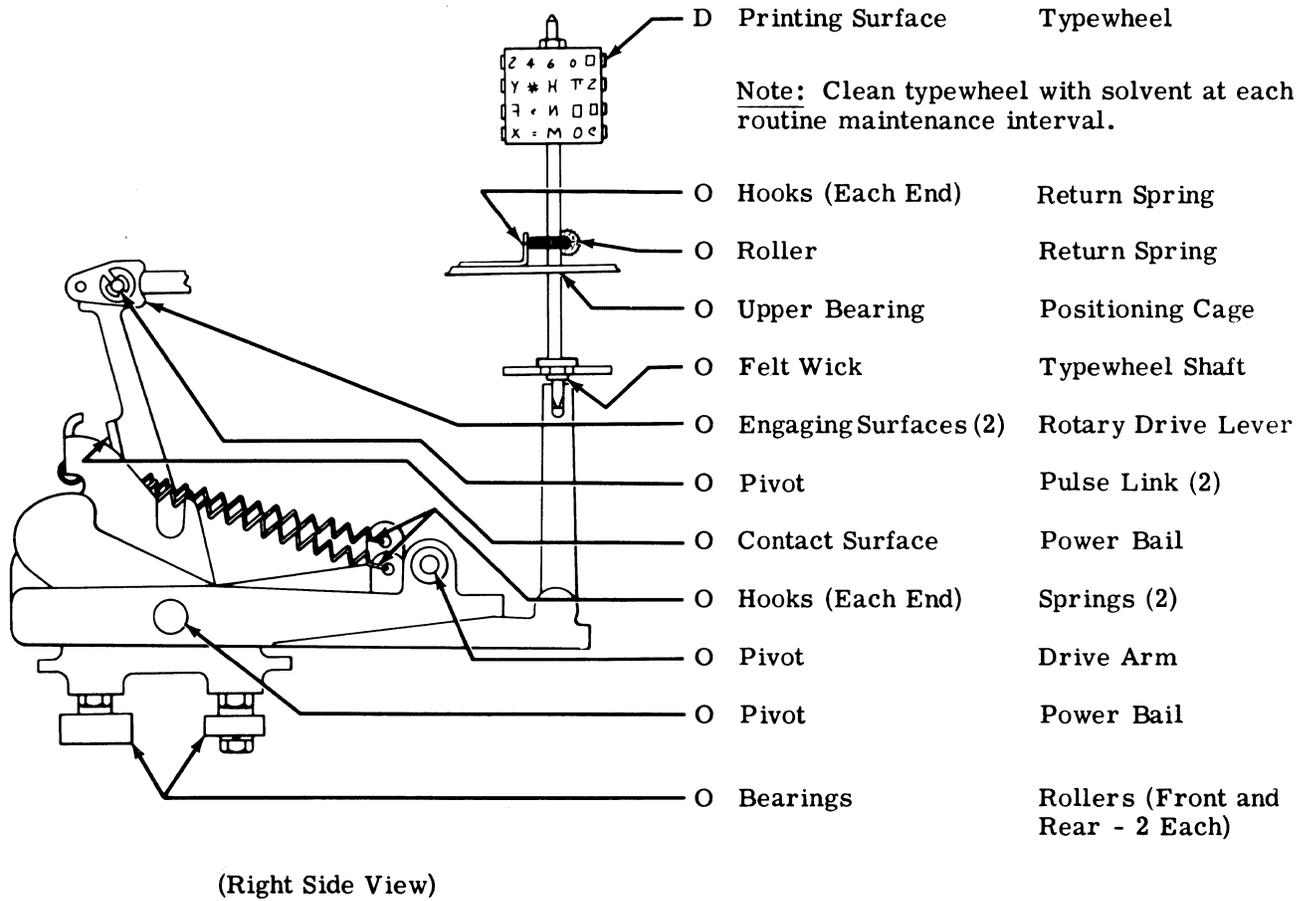
2.32 Print Hammer



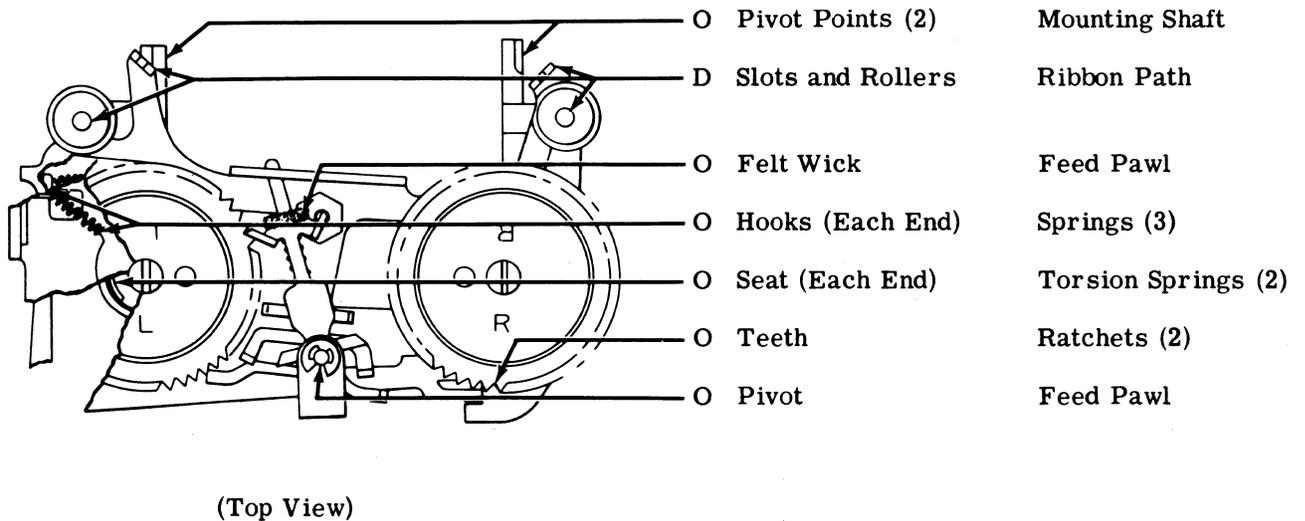
2.33 Reset Arm



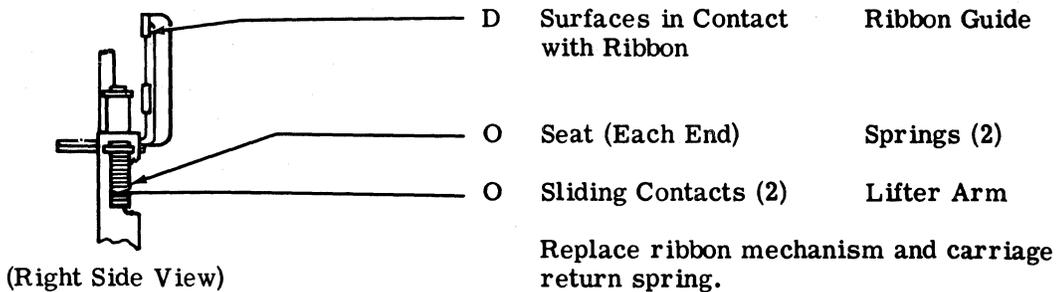
2.34 Typewheel Mechanism



2.35 Ribbon Mechanism

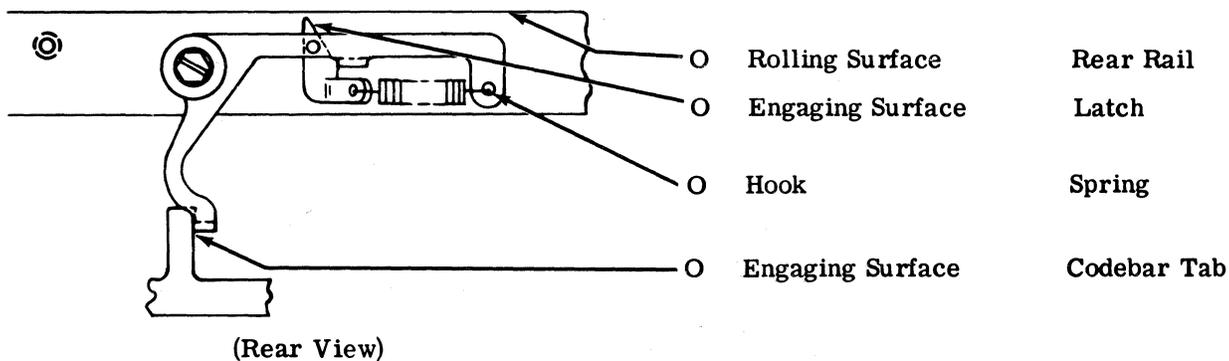


2.36 Ribbon Guide Spring

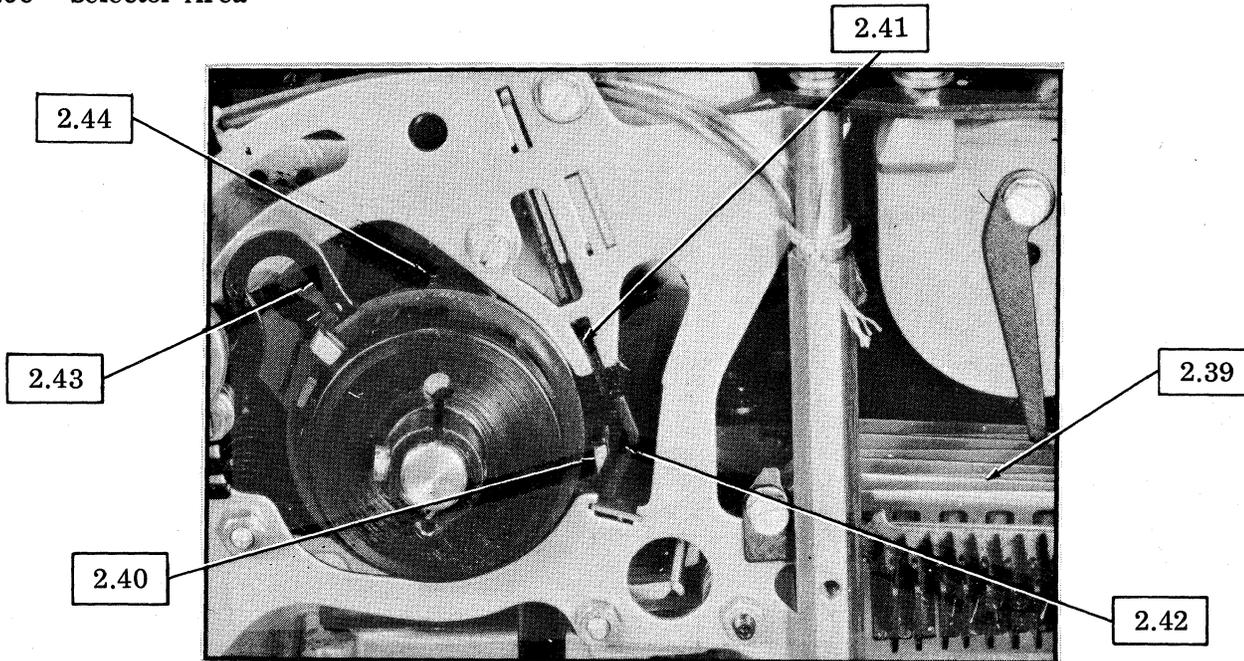


2.37 Carriage Rear Rail

Note: These lubrication instructions apply only to typing units equipped with a TP181304 latch.

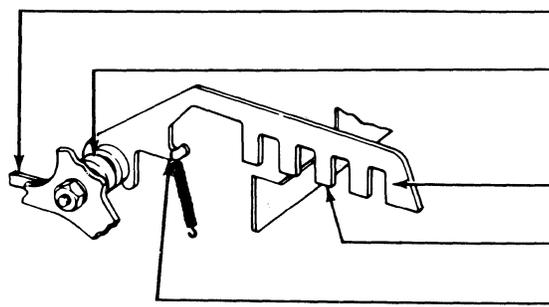


2.38 Selector Area



(Left Side View)

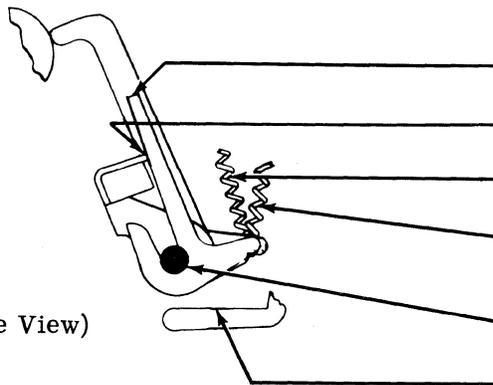
2.39 Blocking Levers



- O Contact Surfaces Blocking Levers
- O Pivots Shaft
- O Engaging Surfaces Codebar Slots
- O Contact Surfaces Tines
- O Hooks Springs

(Left Front View)

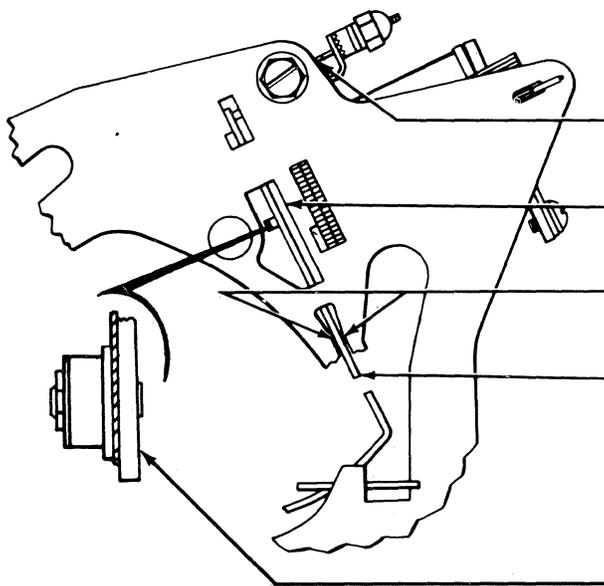
2.40 Pushlevers and Stripper Bail



- O Latching Surface Pushlevers
- O Contact Surface Stripper Bail
- O Hooks (Each End) Bail Spring
- O Hooks (Each End) Pushlever Springs
- O Pivots Pushlevers
- O Contact Surfaces Blocking Levers

(Left Side View)

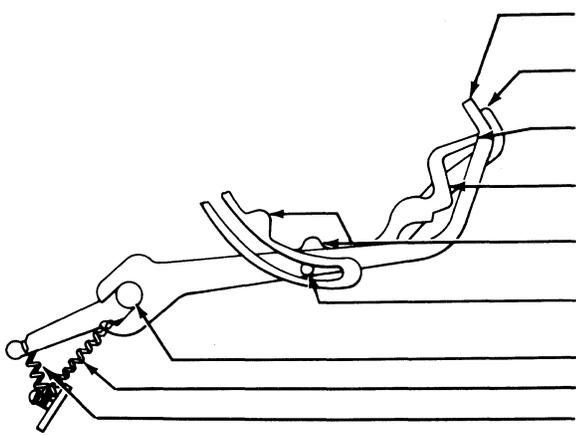
2.41 Armature



- D Hooks Armature Spring
- D Engaging Surfaces Armature
- O Engaging Surfaces Side Plates
- G Engaging Surface Armature
- D Engaging Surface Armature

(Left Side View)

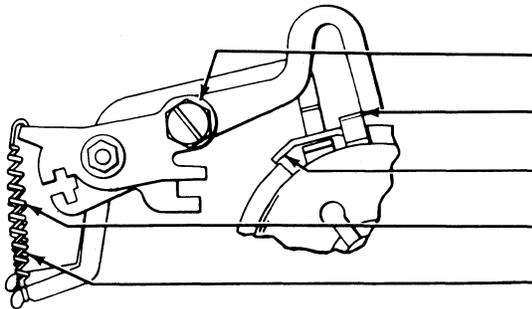
2.42 Selector Levers



(Left Side View)

- O Tip Start Lever
- O Contact Surface Locklever
- O Contact Surface Selector Levers
- O Engaging Surface Selector Levers
- O Camming Surface Selector Levers
- O Sliding Contact Start Lever
- O Pivots Levers
- O Hooks (Each End) Start Lever Spring
- O Hooks (Each End) Spring (9)

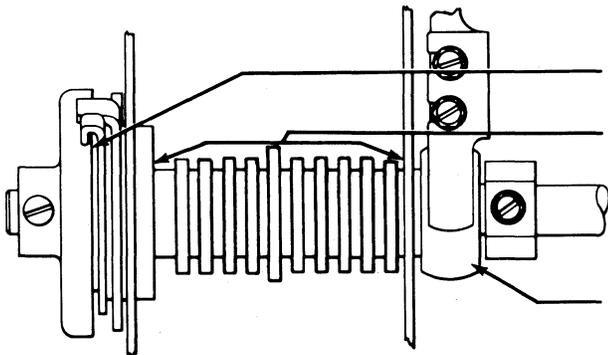
2.43 Latchlever and Trip Lever



(Left Side View)

- O Pivots (2) Levers
- O Engaging Surface Trip Lever
- O Latching Surface Latchlever
- O Hooks (Each End) Trip Lever Spring
- O Hooks (Each End) Latchlever Spring

2.44 Selector Clutch



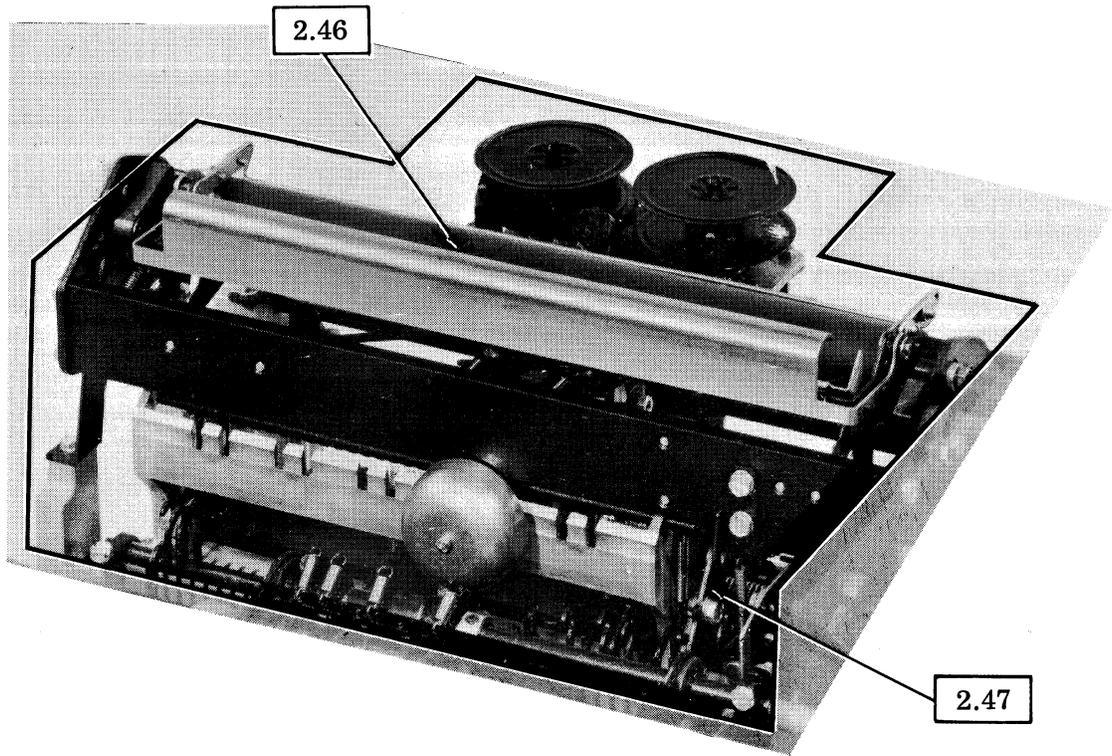
(Top View)

- O* Internal Mechanism Selector Clutch
- O* Camming Surface Selector Clutch
- O Bearing (Each End) Main Shaft

*Refer to 1.05.

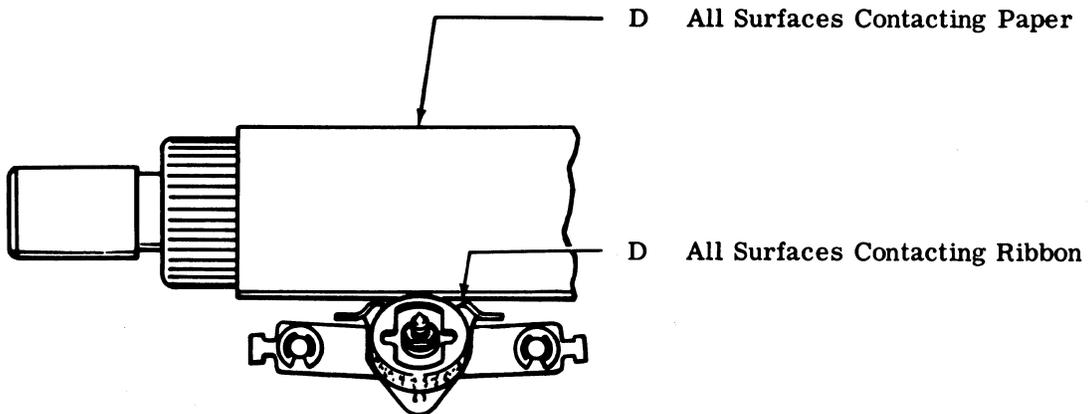
FRICITION FEED MECHANISMS

2.45 Paper Feed Area



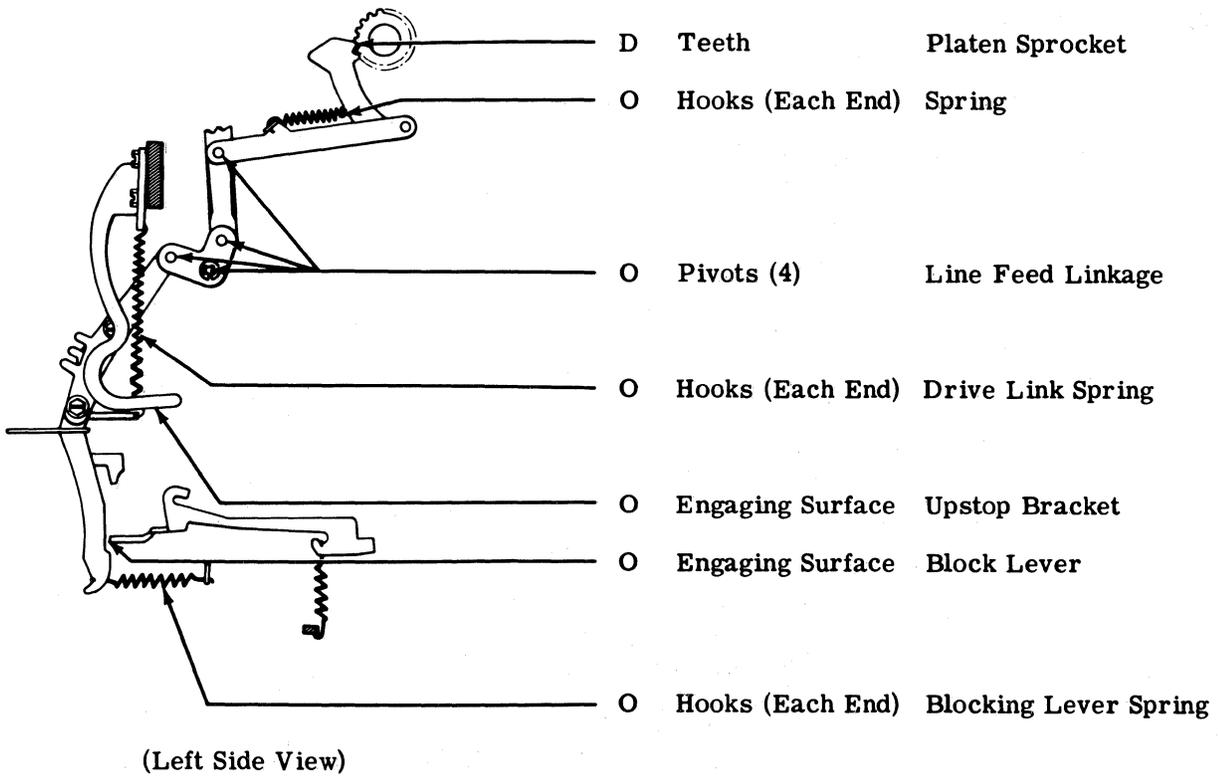
(Rear View)

2.46 Platen



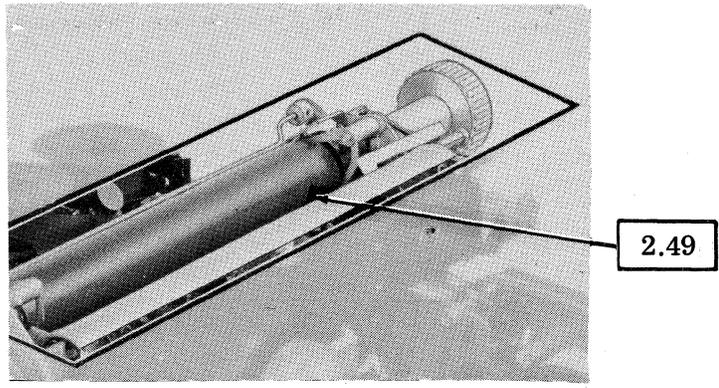
CAUTION: DO NOT CLEAN PLATEN WITH SOLVENTS.

2.47 Line Feed Mechanism



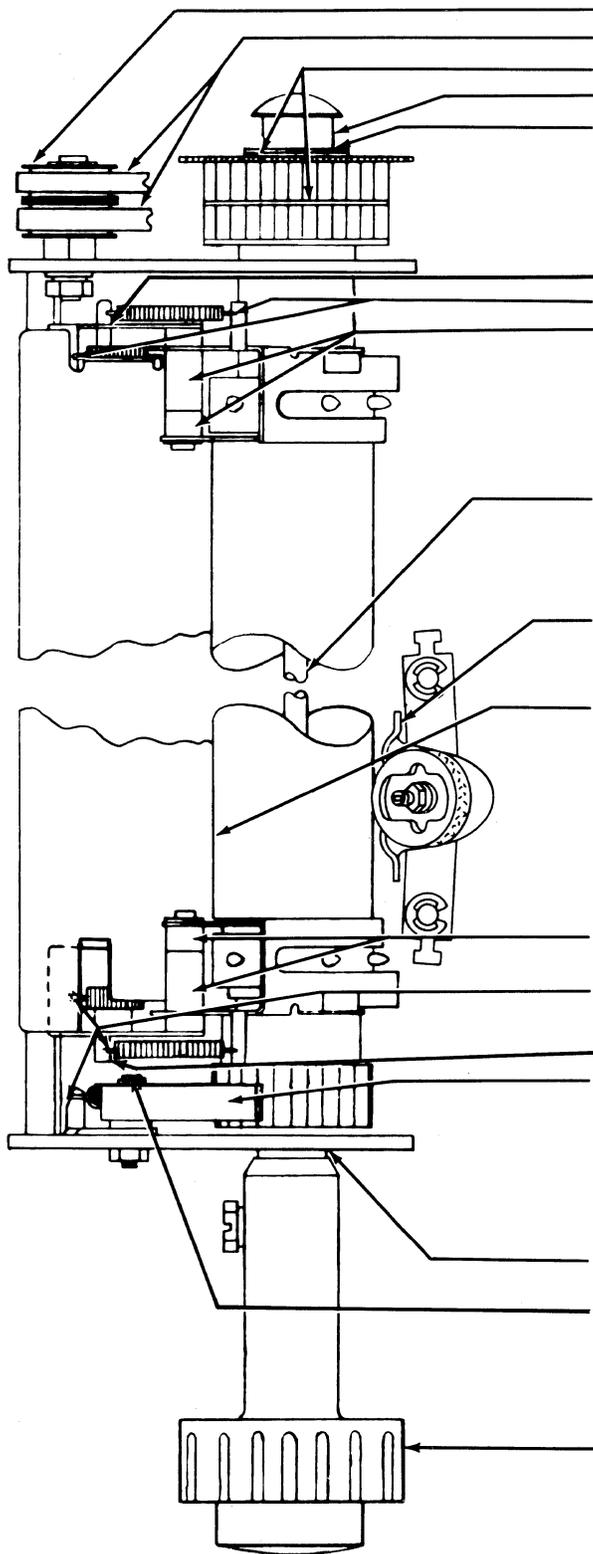
SPROCKET FEED MECHANISMS

2.48 Paper Feed Area



(Right Rear View)

2.49 Platen Mechanism



- O Bearing Idler
- D Belts Drive
- O Bearing Pulley
- O Bearing Button
- O Felt Washers (2 Within Shaft) Shaft

Note: Shaft must be disassembled. See appropriate disassembly and reassembly section.

- O Pivot Paper Guide
- O Hooks (Each End) Spring
- O Bearing Paper Guide

- O* Bearings (Both Ends) Shaft

Note: Reassemble shaft.

- D All Surfaces Contacting Ribbon

- D All Surfaces Contacting Paper

- O Bearing Paper Guide
- O Hooks (Each End) Spring
- O Pivot Paper Guide
- O Bearing Pawl

- O & G** Bearing Left and Right Plate

- O Pivot Detent Lever

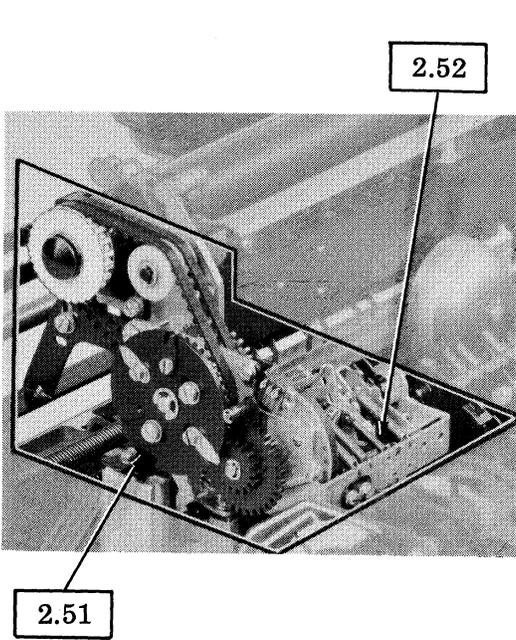
- D Bearing Knob

*Refer to 1.05.

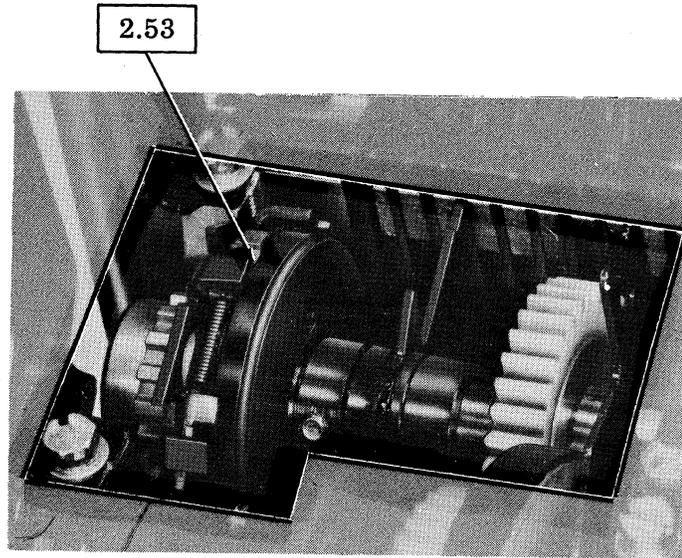
**Apply a coat of thoroughly mixed 50 percent KS7470 oil and 50 percent KS7471 grease.

(Top View)

2.50 Platen Drive Area



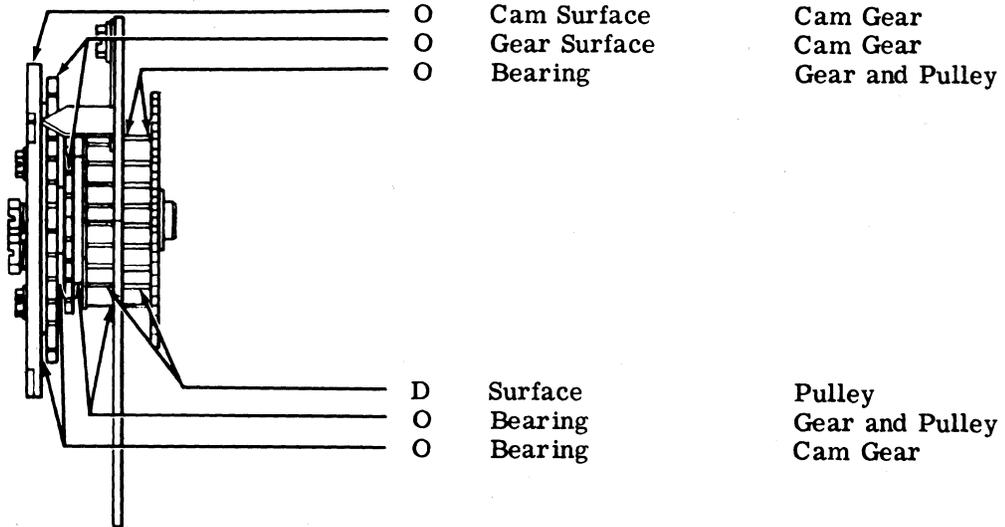
(Right Rear View)



(Left Rear View)

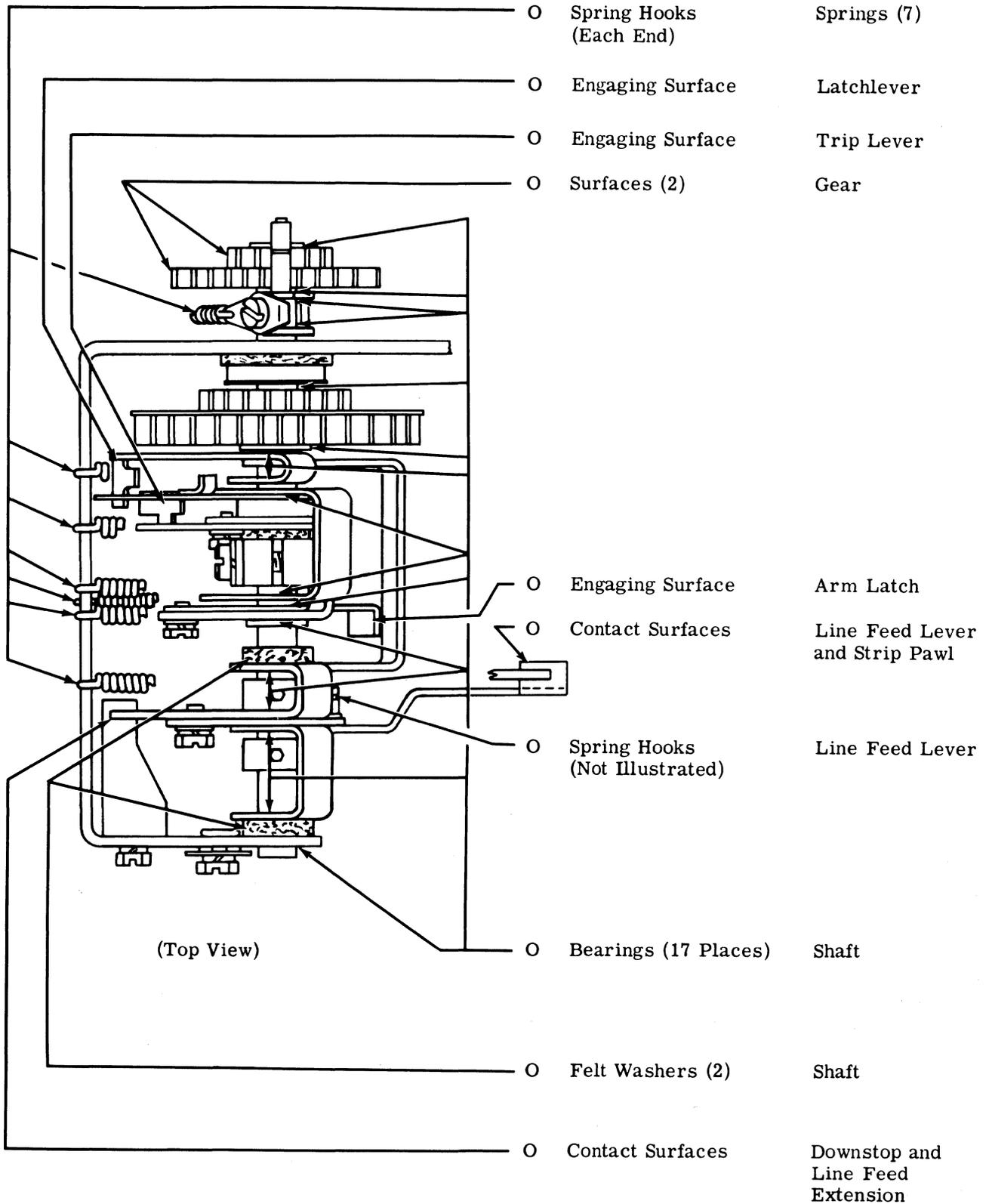
(Form-out mechanism removed for illustration purposes. Removal for lubrication is not required.)

2.51 Cam, Pulley, and Gear Combination

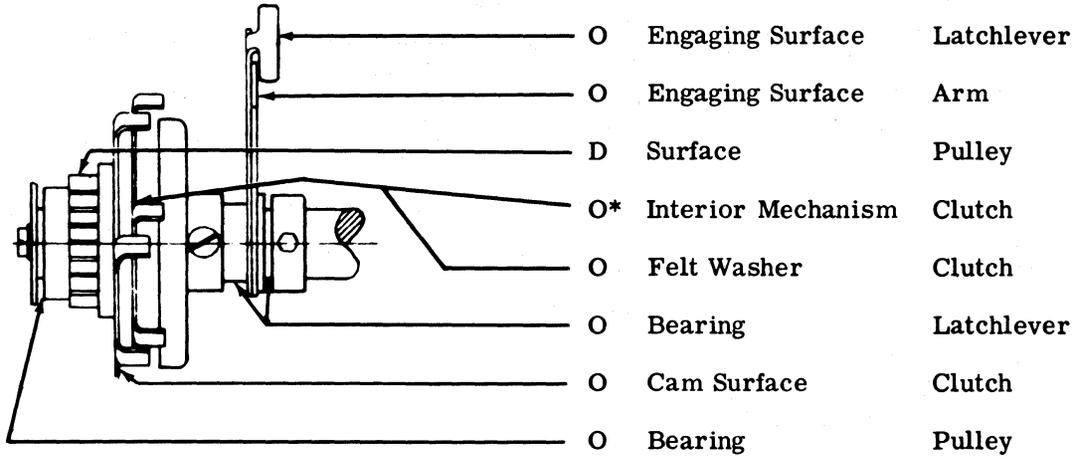


(Top View)

2.52 Form-Out Mechanism



2.53 Line Feed Clutch

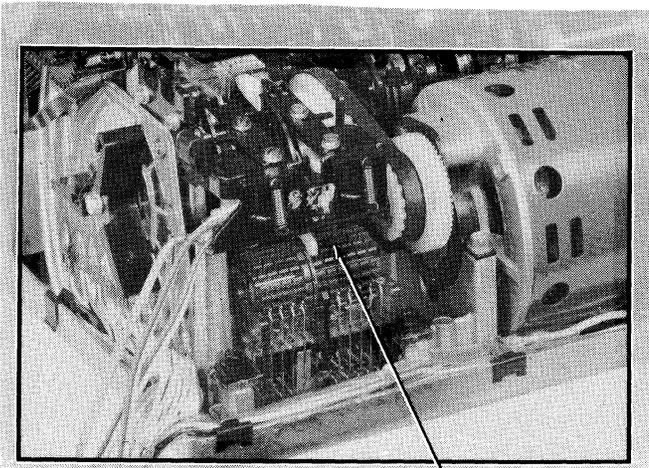


(Top View)

* Refer to 1.05.

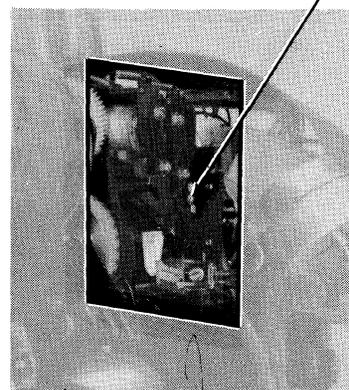
3. VARIATIONS TO BASIC UNITS

3.01 Answer-Back Area



(Left Rear View)

3.03

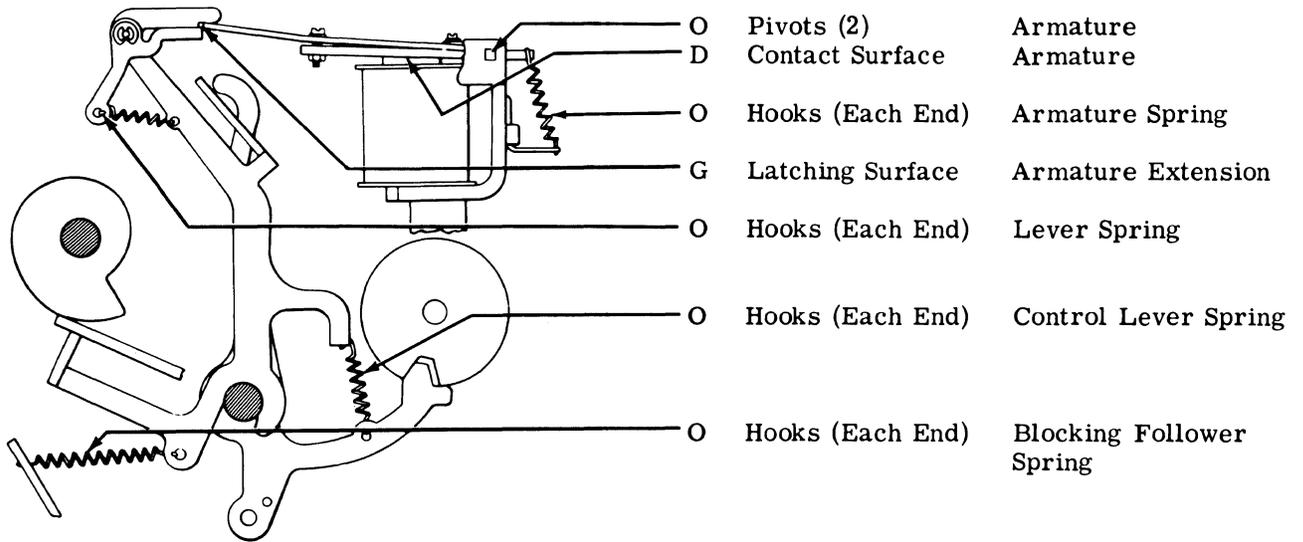


(Left Side View)

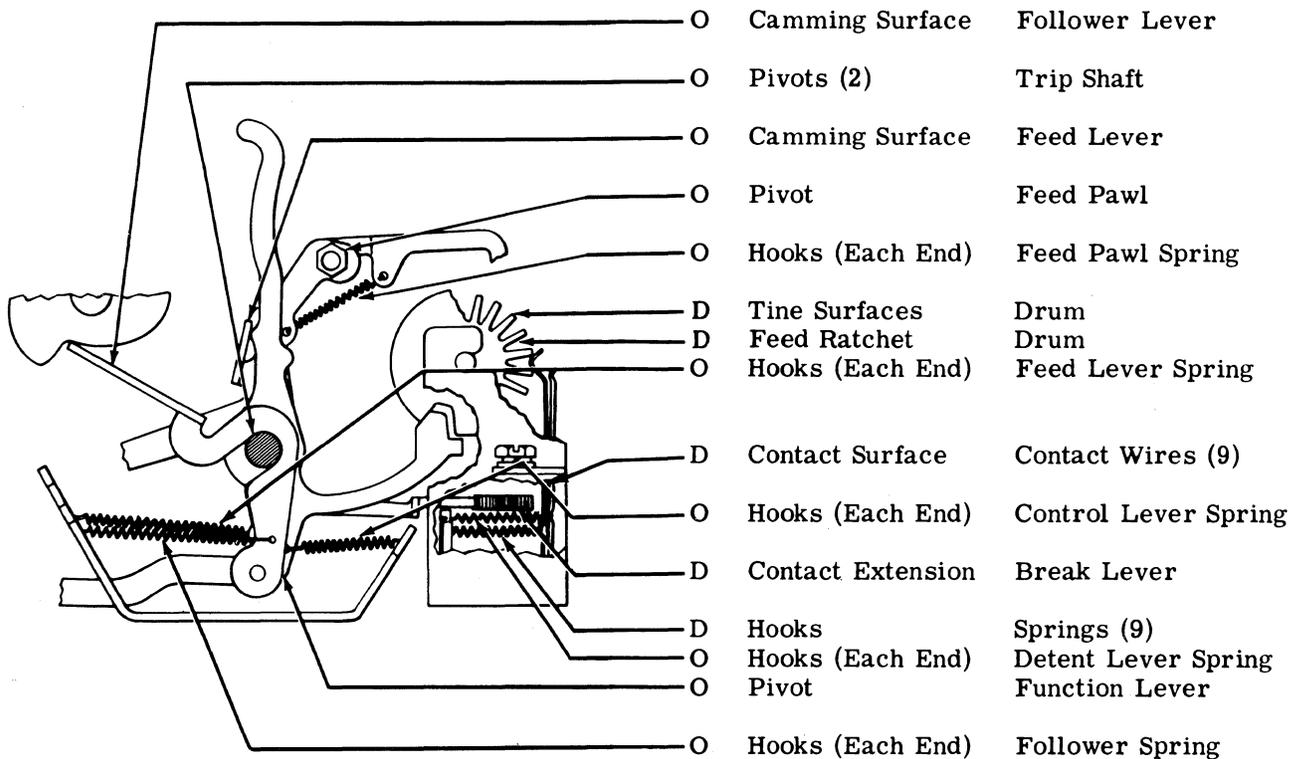
3.02

3.02 Trip Magnet

Note: Remove answer-back drum.



3.03 Answer-Back Mechanism

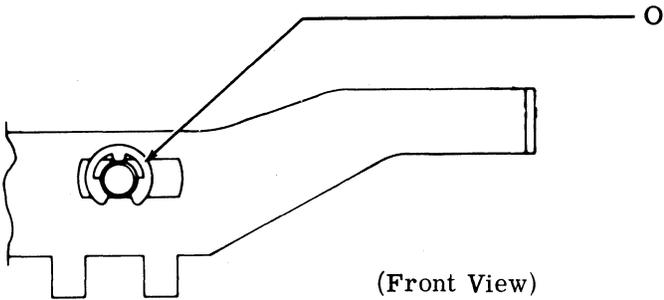


Note: Replace answer-back drum.

CAUTION: DO NOT CLEAN CONTACT BLOCK WITH SOLVENTS.

3.04 Print Nonprint Mechanism (Units So Equipped)

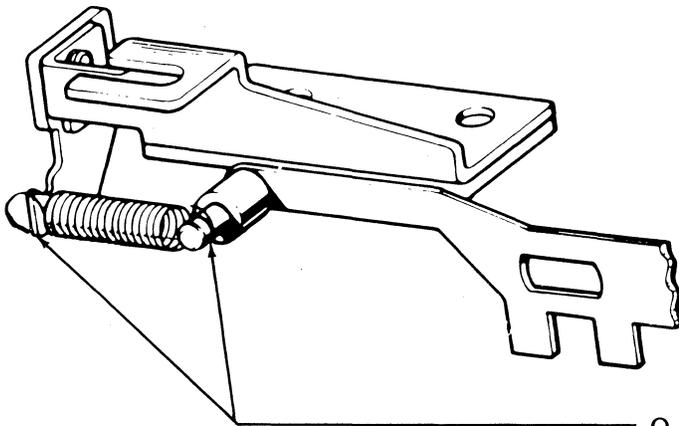
Note: These lubrication instructions apply to both the magnet operated and solenoid operated print nonprint mechanisms.



Contact Surface

Nonprint Codebar
Mounting Posts
(Each End of
Codebar)

(Front View)



Hooks (Each End)

Nonprint Codebar
Return Spring

(Right Front View)