

**REPLACEMENT OR
ADDITIONAL MANUALS
AVAILABLE AT
EXTRA COST.**

**KIWI CODERS CORPORATION
SERIES M LABEL IMPRINTERS**

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**GIVE SERIAL NUMBER OF YOUR PRINTER WHEN ORDERING PARTS.
ORDER PARTS BY FULL DESCRIPTION AND PART NUMBER.**

SERIES M LABEL IMPRINTERS

Operation and Service Manual

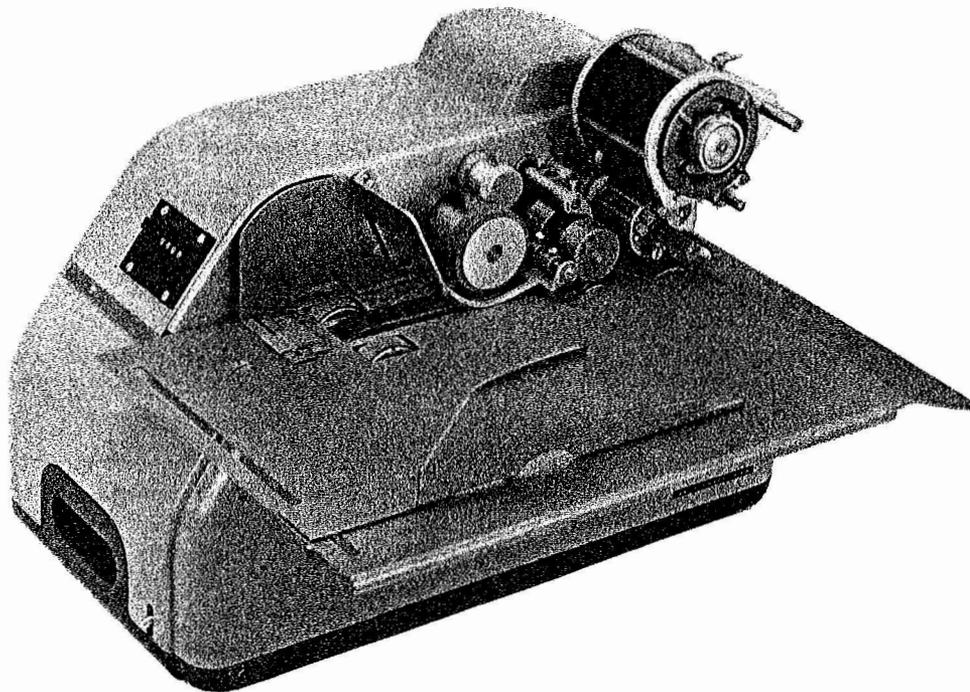


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1. GENERAL

The Series M are desk-top type, high-speed, automatic imprinting machines capable of continuously imprinting a wide variety of materials such as labels, KD cartons, poly-bags etc.

The material to be imprinted can be stacked to a maximum height of approximately 3". The type hub or printing wheel is clutch operated. A Single revolution clutch is triggered when the leading edge of the label contacts the Trip Finger Part No. 12-1. The maximum operating speed of this single revolution clutch is 300 per minute.

2. MACHINE DESCRIPTION AND OPERATION

Feed, imprinting and inking system of the Series M imprinter are identified and described in Fig. 1.

Part Name	Part No.	Part Name	Part No.
1. Internal Sheet Guide	1-20	12. Guide Roller	19-9
2. Feed Belt	5-15	13. Catcher	4-5
3. Feed Roller Belt	6-4	14. Quick Dry Ink Assembly	15-3
4. Pressure Guide	1-9	15. Out Feed Roller Belt-M1&M4	19-8
5. Separating Roller Belt	7-4	Out Feed Roller Belt-M3&M34	M3-19-8
6. Separating Roller Adjustment Knob		16. Hub Pressure Roller Belt	11-4
7. Counter	13	Hub Pressure Roller Belt	M3-11-4
7A. "0" Setting button for counter		17. Double Metal Roller	9-4
8. Trip Finger	12-1	18. Double Rubber Roller Belt	8-5
9. Collar with Spring	7-23	19. Crank Handle	5-24
10. Hub (Printing Wheel)		20. Pressure Plate	7-9
11. Support for Inking System	15-17	21. External Sheet Guide	1-15
		22. Power Switch	3-12
		23. Feed Plate	1-12

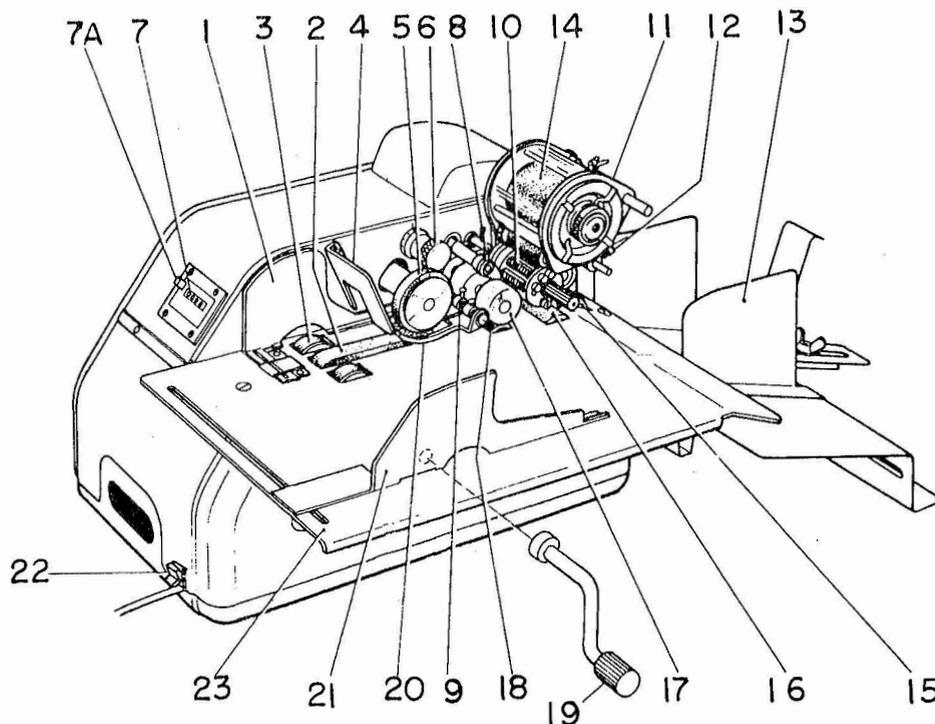


Fig. 1

OPERATION DESCRIPTION

The material stacked on feed plate (23) is fed one at a time by the feed and separating rollers (3 & 5). The function of the Separating Roller is to permit feeding of a single sheet at a time while simultaneously holding back the balance of the material stacked. The item fed travels through the double rubber and metal rollers (17 & 18) and then is fed to the printing hub (10) at fixed intervals. After imprinting, the material is discharged, forming a stack in the catcher (13). The rubber feed belts and rollers are designed to accept the material thickness range of 0.003" (0.07mm) to 5/64" (2mm). The separating roller can be accurately adjusted to separate the stacked material for providing smooth flow through the imprinter into the catcher (13).

IMPORTANT NOTES

- 1) When carrying the machine, hold it by the inset handles (spaces provided on both ends of the machine).
- 2) The crank handle should be used only for setup in adjusting the separating rollers for smooth flow of material. Interlock switch prevents operation of the series M with the crank handle in position. Always turn electrical switch off when making adjustments.

NOTE: When imprinting small thin labels less than 2-3/4" (70mm) in length or thin plastic sheets or polyethylene bags, and similar materials which cause static electricity, it is recommended to use a static electricity eliminating device with the imprinting machine. For further details please contact Kiwi Coders Corp.

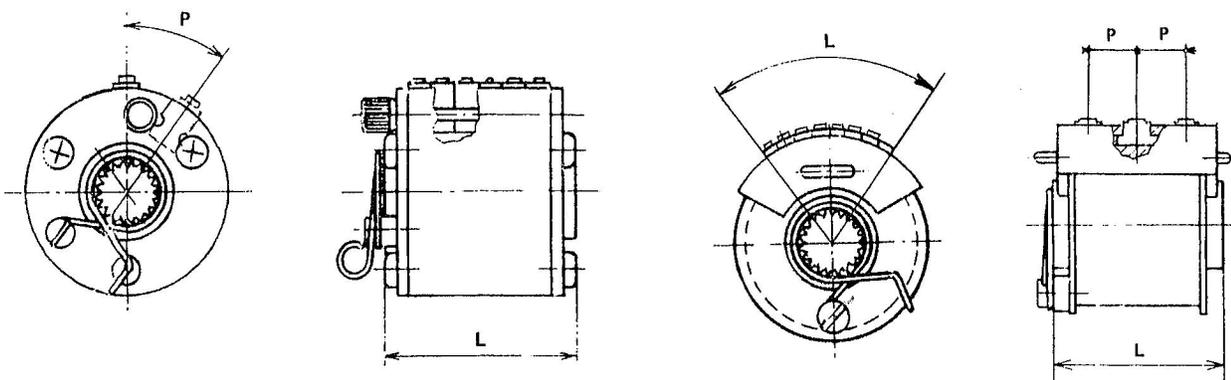
3. TYPE SYSTEM

Either steel or rubber type can be used. Rubber Printing mats are recommended for special logos or large amounts of copy.

- A. Steel Type Hubs: Two basic hub styles are available—T and R.
 The circumference of the type hub is 4.72" (120mm).
 The type hub diameter including type is 1.5" (38.2mm).
 "P" (The circular pitch or spacing between the imprinted lines) of each Hub is shown in Fig. 2. The distance between lines is critical when imprinting in a limited space.

T Hub for Steel Type

R Hub for Steel Type



Hub	P (pitch)	L (length)
T5	15/32" (12mm)	1.575" (40mm)

Hub	P (pitch)	L (length)
R3	13/64" (30mm)	1.18" (30mm)
R5	5/16" (8mm)	1.18" (30mm)

Fig. 2

Steel Type

Steel type is available in two styles. Remember that T and R style type are not interchangeable.



Fig. 3

“T” style fits in T-Type hubs, “R” style in R-type hubs. The number of characters that can be imprinted in a single line depends on the size of the type and the length (L) of the type hub. (see below table)

Type Size	Characters per Line			Characters per 1" (25.4mm)
	T5 Hub 40mm	R5 Hub 30mm	R3 Hub 30mm	
5/64" (2mm)	20	15	15	12
1/8" (3mm)	13	10	10	8
5/32" (4mm)	10	7	7	6

Fig. 4

How to Place Steel Type into Type Hub

(1) T-Hub:

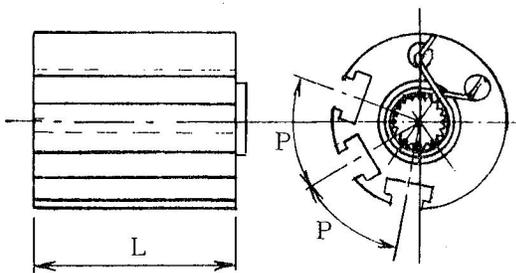
- a. Remove retaining screw.
- b. Place desired type (T) in a row along the groove in the hub. If there is any blank between type, fill with a type spacer.
- c. Insert and tighten the retaining screw.

(2) R-Hub:

- a. Holding the type hub so that the removable type frame is facing down, remove the U-shaped pin to release the type frame.
- b. Holding the type frame such that its outer surface is facing down, insert the desired “R” type with tweezers provided. Blank spaces should be filled with steel spacers. Be careful not to turn type frame assembled with type upside down as type will spill out.
- c. Match the opening of the type frame with that of the hub and secure with the U-shaped pin.

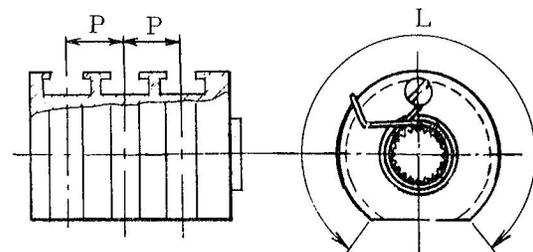
B. Type Hubs-Kiwi “T” Slot Rubber Type

GTK Hub for Rubber Type



Hub	P (pitch)	L (length)
GTK	.655" (16.6mm)	1.575" (40mm)

GRK Hub for Rubber Type



Hub	P (pitch)	L (length)
GRK	7/16" (11.1mm)	3" (76mm)

"T"-Slot Rubber Type

Rubber type that is available is Kiwi "T" slot type which is available in two standard sizes of 1/8" and 3/16" character height. Two lines of type in a single T-slot type insert can be provided with character height as small as 3/32". The maximum number of characters that can be imprinted with the GTK type Hub is 11, with the GRK type Hub is 13.

C. Type Hubs for Rubber Printing Mats

1/8" (3mm) thick adhesive backed printing mats and the exclusive Kiwi elastic rubber type band are additional type options. The PMK type hub should be specified with this type. Fig. 6 shows the running length and location of the rubber printing mats.

Location	Max. Running Length
A	1-5/16" (34mm)
B	2-1/8" (55mm)

NOTE: With model M1 and M3, location of Printing mat in Zone A will not imprint on the label.

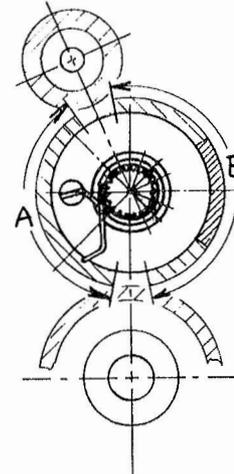


Fig. 6

4. QUICK DRY INKING SYSTEM

The enclosed inking system is unique in that it uses a fast dry ink (K5) with a replaceable Ink Roller that is reinkable. Fast dry inks are required when imprinting on plastic or varnished surfaces. When imprinting long labels and type is located between B and G (see Fig. 13), a slower drying ink is required. Consult factory.

When not in use, the ink roller should be removed from the enclosure and placed in the air tight plastic container furnished for this purpose.

If this is not done, the ink will eventually dry on the ink roller causing replacement of the ink roller. Addition of a few drops of Kiwi No. 8 Ink Conditioner to the bottom of the plastic container prior to storage will prevent drying out of the ink roller. Periodic cleaning of the ink transfer roller (3) with Kiwi No. 8 Ink Conditioner is recommended.

To attach the inking system, proceed as follows: (See Fig. 7)

- Insert the Spline Shaft (2) into the Spline Holder (1). Attach the inking system by wing bolt (5) and wing nut (6).
- When the inking system is moved to adjust imprint location, loosen Wing Bolt (5).
- Mount the type hub on the hub spline shaft (10). Do not locate type on either the ink transfer roller or hub pressure roller as the rollers will be damaged requiring replacement.
- When mounting or removing the ink roller, match the Matching Marks (7) of the Cap and the Housing Cover.

— cont'd —

- e. Contact between the ink roller and ink transfer roller is made by turning adjustment knob (8) on the cap clockwise (CW) or counter clockwise (CCW). The eccentric shaft which supports the ink roller is spring loaded so as to prevent improper adjustment.
- f. When replacing the ink transfer rubber roller (3), loosen the machine screw (9) and draw out the spline shaft (2).
- g. When mounting the new ink roller, turn Adjusting Knob (8) on the cover CCW fully to end.

Part Name	Part No.	Part Name	Part No.
1. Spline Holder	Q33-1	7. Matching Mark	
2. Spline Shaft	Q06-1	8. Adjustment Knob	Q11
3. Ink Transfer Rubber Roller	Q07-1	9. Machine Screw	Q03
4. Ink Roller	Q14	10. Hub Spline Shaft	Q10
5. Wing Bolt.	QSU-4	11. Cover & Eccentric Shaft	Q33-2
6. Wing Nut	Q15-4		

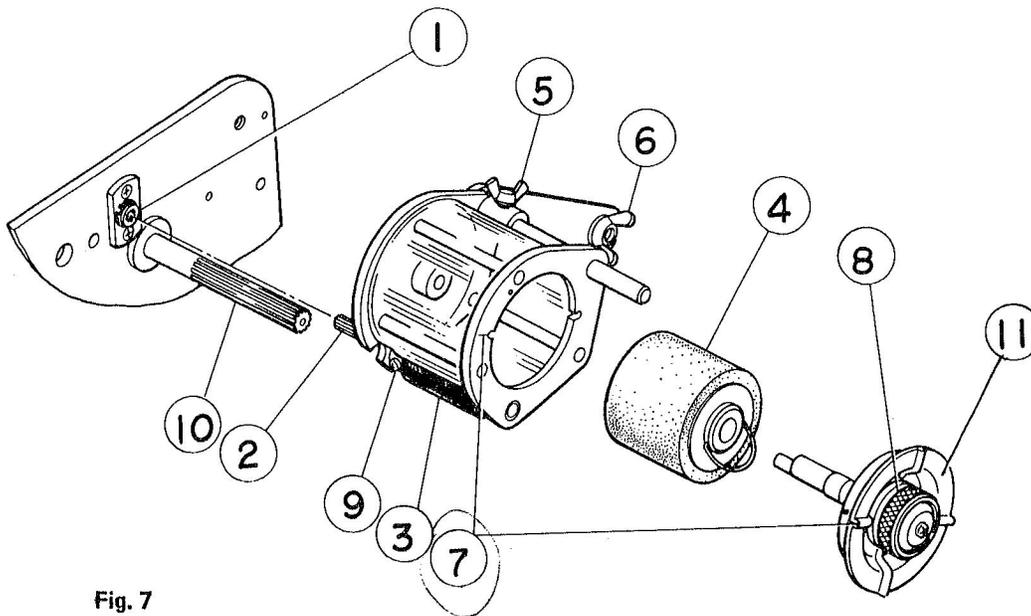


Fig. 7

Recommended Inking Procedure for Ink Roller

Place uninked ink roller in plastic container. Apply ink to end of Ink Roller until ink roller is completely saturated. Filling plastic container with ink is not recommended. It is recommended that a small amount of Kiwi No. 8 Ink Conditioner be periodically added to the plastic container just prior to storing the ink roller.

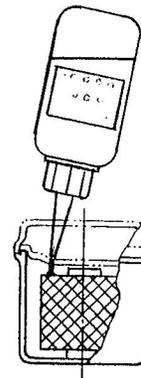


Fig. 8

5. PRESSURE PLATES

The purpose of the pressure plate is to exert an adjustable spring loaded pressure on the sheet to ensure positive contact between the sheet and the feed belt. It may be necessary to increase this pressure should feeding be erratic.

Three pressure plates are available as shown in the below table.

Sheet Width	Sheet Thickness	Pressure Guide	Pressure Plate
1" (25mm) to 2" (50mm)	up to .008" (0.2mm)	—	7-9S
2" (50mm) to 4" (100mm)	.008" (0.2mm) to .04" (1mm)	1-9A*	7-9A*
4" (100mm) and Over	.04" (1mm) to .078" (2mm)	1-9	7-9

(*Furnished with standard machine)

Fig. 9

6. APPLICATION CONSIDERATIONS

A. Label Shape

The shape of the label is important for proper feeding through the imprinter. Rectangularly shaped labels are ideal. Labels with one straight side can be guided through the machine if proper care is made in the setup. Round labels or those without one straight side are not recommended. To accommodate long labels, an optional plate extension to the feed plate is available.

B. Production Rate

The Series M are available with two standard production rates. These are 140 per minute and 260 per minute. These rates are based on imprinting on approximate 6" long label. The M1 and M4 machines are normally set up for 140 per minute, e.g. M1-140. The M3 and M34 machines are normally set up for 260 per minute. Where the customer runs long labels only (6" and longer) and production rate is critical, an M1-260 or M4-260 is recommended for a maximum production rate. Should a label less than 6" long be run on a M1-260 or M4-260, permanent damage to the machine can occur.

When imprinting on soft materials such as plastic pouches or thin labels, a model with 140/min. production rate is recommended, i.e., M1-140, M3-140, M4-140 and M34-140.

Production rates can be calculated by using the below table. Remember that these are theoretical production rates at 100% efficiency.

PRODUCTION RATE TABLE

Production Rate for 6" (152mm) Length	To Calculate (n) Labels/Min. for a Given Length (L)	
	Inch	mm
140	$n = \frac{1220}{(L + 2.87)}$	$n = \frac{31,000}{(L + 73)}$
260	$n = \frac{1780}{(L + 1)}$	$n = \frac{45,000}{(L + 25)}$

Fig. 10

As items become shorter, the production rate increases. For example an item with a 2-3/8" minimum running length has a calculated production rate of 232 per minute on a M1-140 and 527 per minute on M1-260. Since 527 per minute exceeds the 300 per minute maximum operating speed, the M1-140 should be specified.

The Production Rate Graph in Fig. 11 shows the relations between label length and production speed.

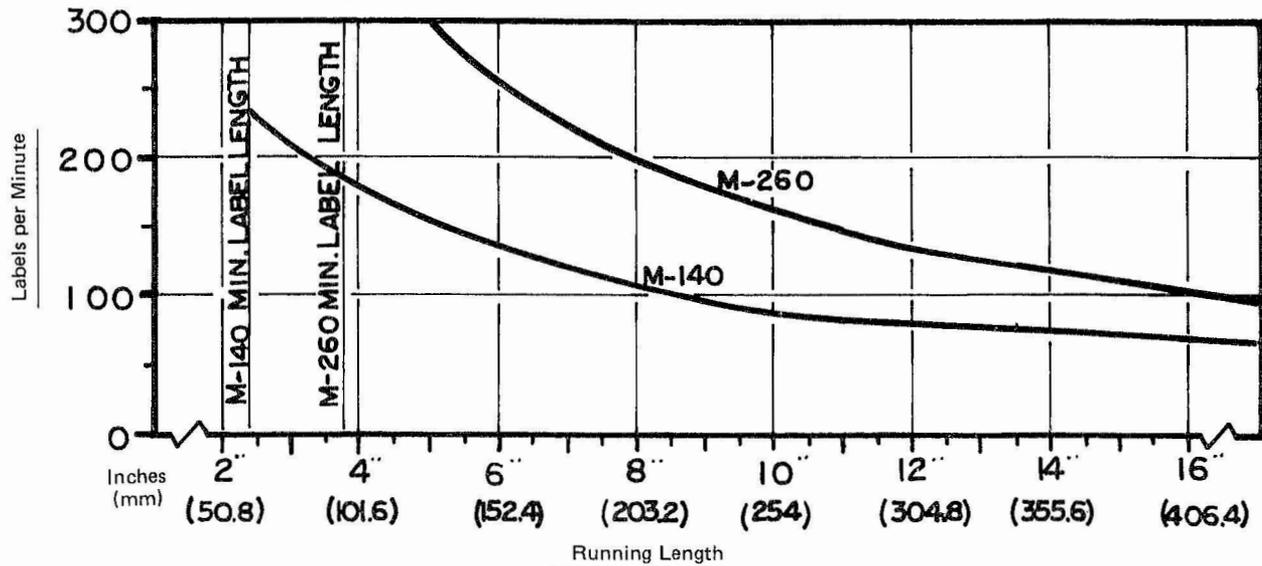
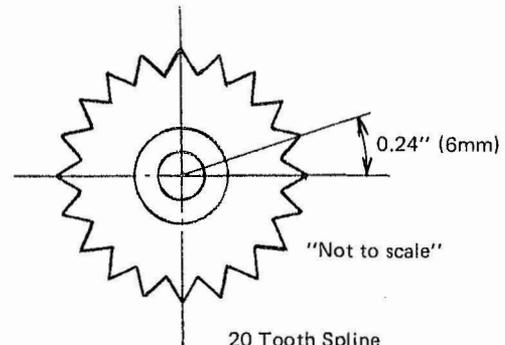


Fig. 11 NOTE: Machine should not exceed 300 labels/minute.

C. Imprint Location

Imprint location depends on the machine model and the type systems used—steel or rubber. With machine Models M1 and M3, positioning of the imprint in the feed direction is made by repositioning the type hub on the 20 tooth splined mounting shaft. Shifting the type hub one tooth changes the imprint location 0.24" (6mm). See Figure 12. Lateral positioning is accomplished by sliding the type hub along the splined shaft.

Referring to Figure 13, type should not be located in positions C or F as damage to ink transfer roller or pressure roller will occur. Type located in shaded area between C&F will not imprint on the first label since type is not freshly inked.



20 Tooth Spline Type Hub Mounting Shaft
Fig. 12

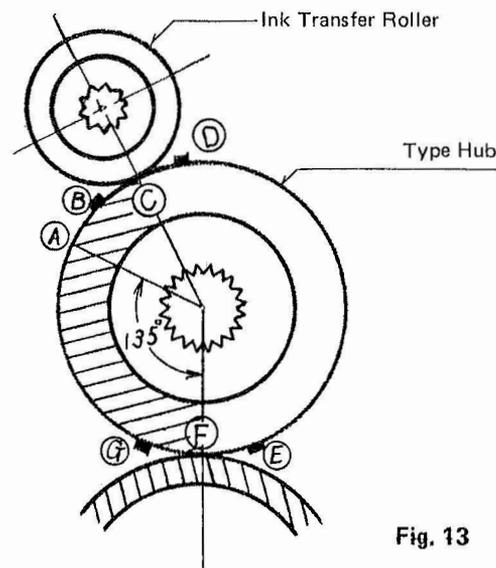


Fig. 13

Models M1 and M3

Type located in area A to F will not imprint on the label. With type at position B, imprint will be located approximately 1/4" (6mm) from the leading edge of the label. With type at position E, imprint location will be approximately 2-3/4" (70mm) from the leading edge. See Fig. 15-1

Models M4 and M34

With type at position G (Fig. 13) and with a No. "2" setting of the Positive Imprint Selector, imprint will be located close to leading edge of the label.

With type at position E and with a No. "5" setting of the Positive Imprint Selector, imprint location will be approximately 6-11/16" (170mm) from the leading edge. See Fig. 15-2

D. Positive Imprint Selector

Available only with Styles M4 and M34, the selector feature provides two advantages .

These are:

1. Fine adjustment of imprint location—0.079" (2mm) per graduation and 2. adds approximately 3-15/16" (100mm) to the normal imprint area in the feed direction. Clockwise rotation of the selector knob moves the imprint away from the leading edge. See Figure 14.

With a "0" setting, first position the type hub near to the desired imprint location. Then use the positive imprint selector for final imprint adjustment.

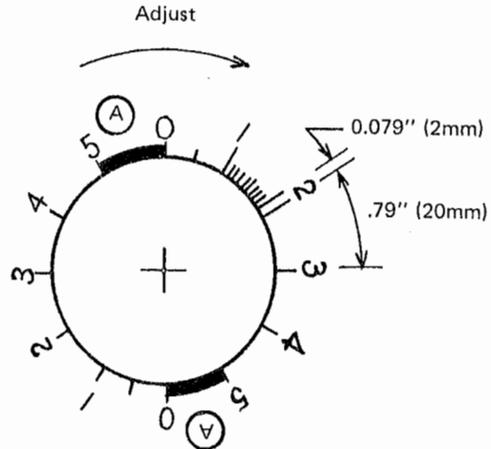


Fig. 14

NOTE: Do not locate selector in the "0 to 5" "A" adjustment zone as the type hub position will not change and the type hub will continue rotating causing possible damage.

E. Imprint Area

When the top of the sheet is fed into the machine, the top left hand corner will be imprinted. The bottom right hand corner can be imprinted by first turning the type "upside down" and then feeding the bottom of the sheet into the machine. Lateral positioning of the imprint is made by shifting the type hub along the splined mounting shaft. The below Fig. 15-1 and 15-2 will clarify this.

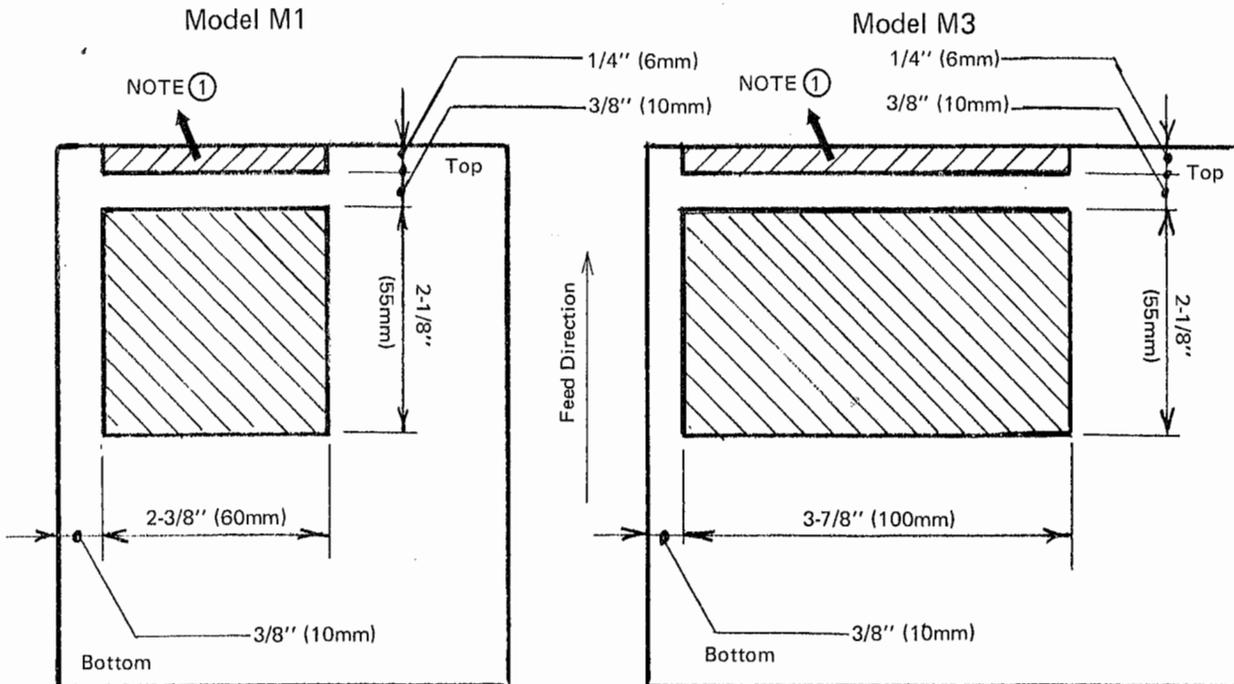


Fig. 15-1

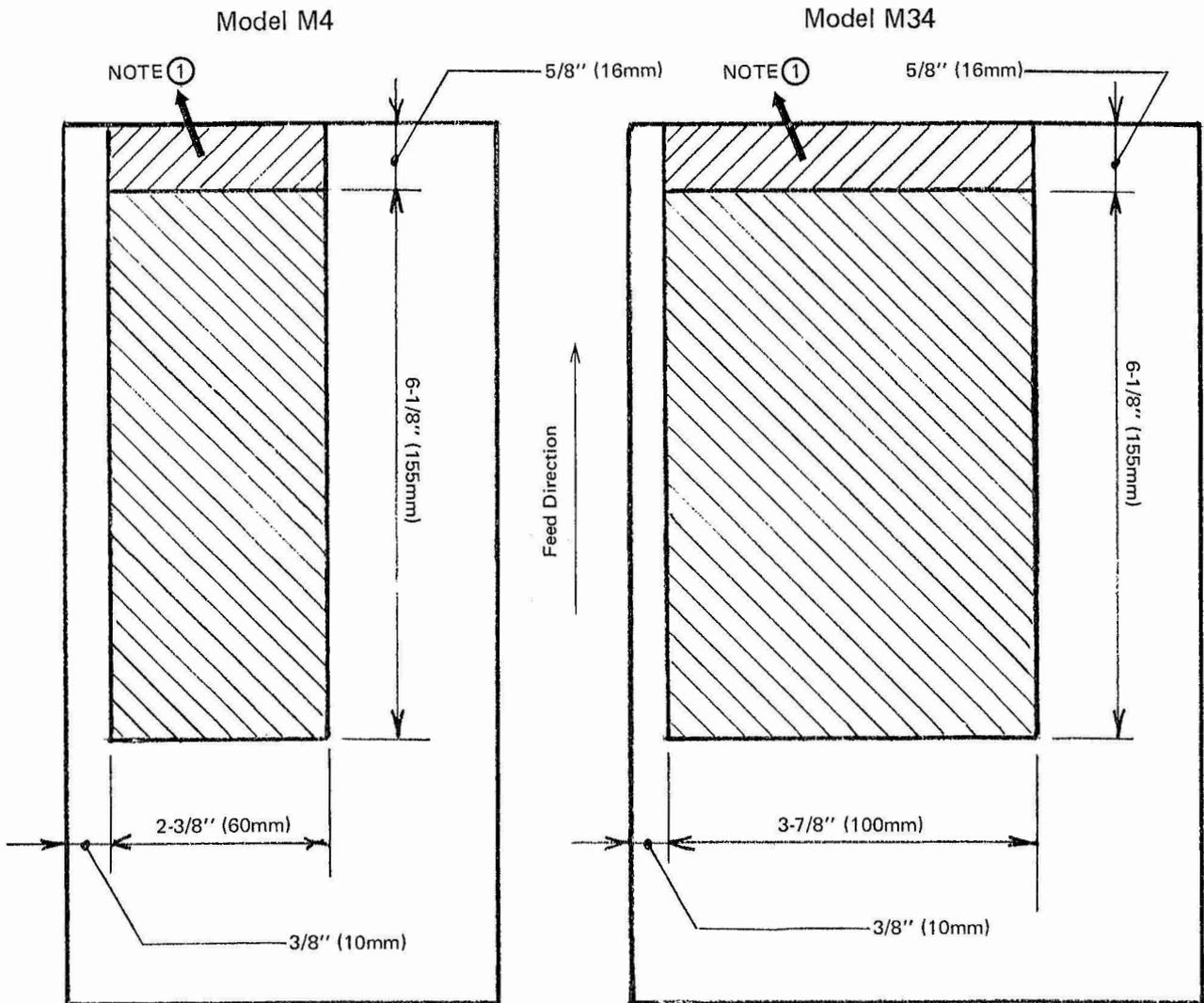


Fig. 15-2

NOTE ① : This area will not imprint on the first sheet since the type is not freshly inked. Subsequent sheets, however, will be imprinted in this area.

7. MACHINE ADJUSTMENTS

1) Separating Roller. (See Fig. 16)

The separating roller adjustment knob is located above the separating roller. When turning the knob CW or CCW from the central position ("0" position), the separating roller moves up or down to adjust the spacing between the lower feed rubber belt and separating roller above.

To adjust the separating roller, proceed as follows:

- a. Set the adjustment knob at "0".
- b. Insert two sheet thicknesses between the separating roller and the feed rubber belt as shown in Figure 16.
- c. Gently turn the crank handle (Item 19—Figure 1) clockwise (CW) while pushing the two sheets into the feed zone. If the bottom sheet is fed through while the top sheet is held up by the separating roller, the separating roller is correctly adjusted. Should the two sheets feed through together, turn the adjustment knob (CCW) approximately one half of the fine graduation on the knob's scale. This moves the separating roller down. Repeat this procedure until a single sheet only is fed smoothly.

- d. Remove crank handle from machine, otherwise machine will not start due to the interlock safety switch.

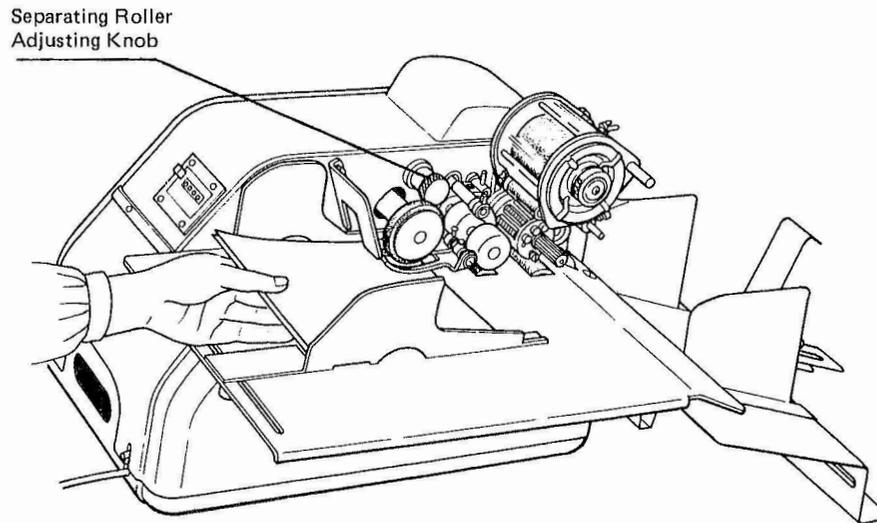


Fig. 16

2) Adjusting Spacing between Type Hub and Hub Pressure Roller. (See Fig. 17)

- A. Turn machine off.
- B. Then rotate the hub pressure adjustment knob clockwise (CW) to lower the rubber pressure roller.
- C. While moving a single sheet back and forth between the pressure roller and idler roller, slowly raise the pressure roller until the sheet meets some resistance and is trapped. This is the correct adjustment. When imprinting K.D. cartons follow the same procedure.

NOTE: Type hub diameter with type is the same as the idler roller diameter. Care must be taken in not imprinting with excessive printing pressure which may cause sheets to curl upward forcing them over instead of under the spring loaded Guide Roller (See Fig. 17—below).

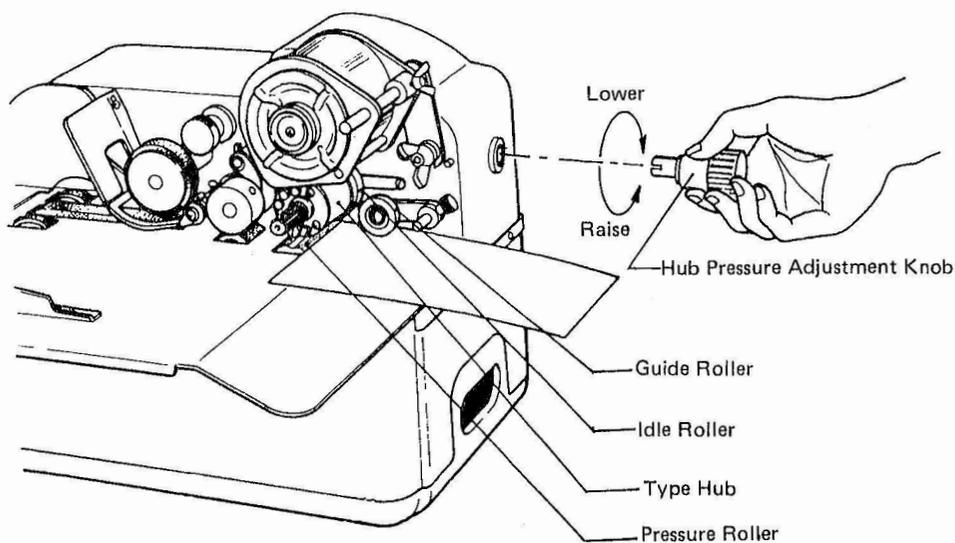


Fig. 17

8. MAINTENANCE

Your series M will provide many hours of satisfactory performance provided care is taken in cleaning, lubricating and periodically replacing its rubber feed belts and/or feed rollers and the ink transfer rubber roller.

A. Cleaning and Lubrication

1) Cleaning

Before and after a lengthy operation, it is desirable to remove any oil or dust from the machine. Make certain that none of the rubber parts have contact with oil or commercial gasoline. Periodic cleaning of the rubber ink transfer roll with Kiwi No. 8 thinner is also recommended. When the machine is not in use, cover with the dust cover provided.

2) Lubrication

It is recommended that your machine be lubricated monthly at the designated points marked in red inside the machine. It is necessary to remove the machine cover to locate these lubrication points.

B. Cover Removal

To remove the cover, proceed as follows:

- a. Remove inside sheet guide, bracket, bracket screws and type hub.
- b. Remove two screws at both ends of the Feed Plate.
- c. Refer to Figure 18, and raise the Separating Roller with the Adjustment Knob turned CW as far as it goes. Lift up the Trip Finger with your right hand and pull the Feed Plate to the left with your left hand.
- d. Disconnect the electrical connector for the counter after the feed plate has been removed.
- e. Refer to Figures 19 and 20. While depressing the flat spring inside the cover with the fingers of your right hand, push the top portion of the cover down with your left hand. Then, the leaf spring will be released from the dimple.
- f. Likewise, remove the spring on the left and lift up the cover with both hands. Remove the cover.

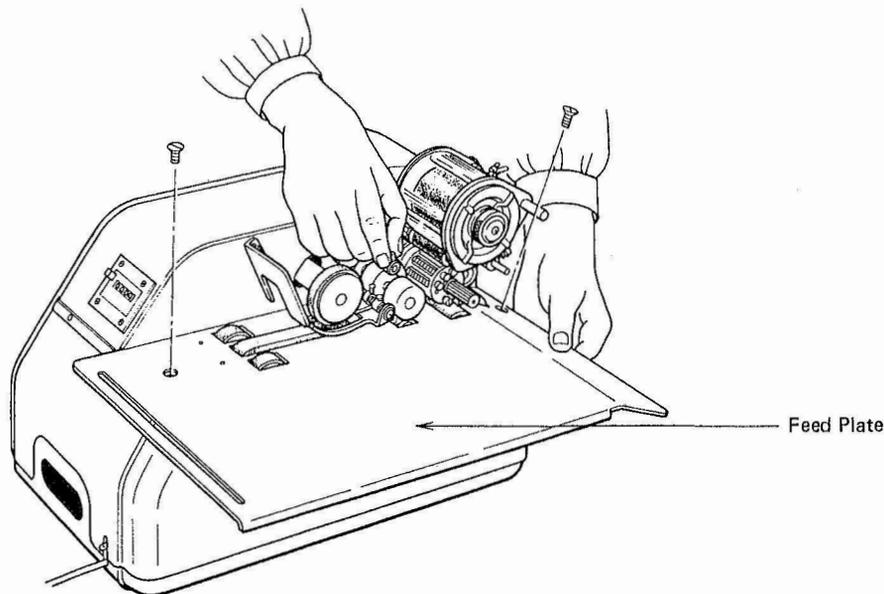


Fig. 18

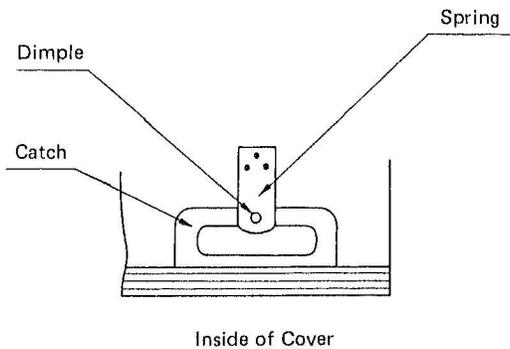


Fig. 19

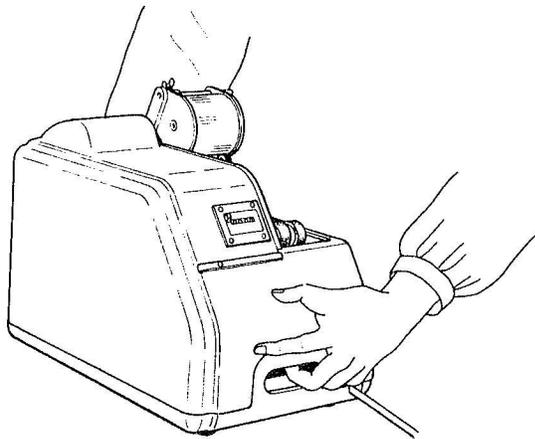


Fig. 20

To replace the cover, do the following:

- a. Put the cover in place and then push it down at both ends. Retaining springs at both ends will fix it in place.
- b. While lifting up the trip with your right hand, insert the feed plate with your left hand. Then insert and tighten the screws at both ends of the plate.
- c. Adjust the separating roller with the Adjustment Knob turned CCW.

C. Rubber Feed Belts/Rollers

The rubber feed belts and rollers will require periodic replacement for proper operation of the machine. The size and quality of each rubber part has been carefully selected. The separating roller (7-3) should be adjusted away from the feed belt (5-15) when material is not being fed through the machine. Otherwise premature wear of the feed belt will occur requiring replacement.

To replace the feed belts/rollers, please follow the below instructions.

- 1) Remove the feed plate and cover following the procedure presented in 7B.
- 2) Loosen the electrical interlock switch and adjust downward to permit removal of belts.
- 3) Remove the rubber belt/roller being replaced by cutting it or slipping it out of the machine.
- 4) Stretch new rubber belt/roller into place.

Then reassemble the cover and feed plate and adjust the separating roller and spacing between the type hub and the hub pressure roller.

9. TROUBLESHOOTING PROCEDURES

1. Slippage of material
 - a. Symptom
 - 1) Number of sheets imprinted does not coincide with the figure shown on the counter.
 - 2) One or more sheets are not imprinted.
 - 3) Slippage occurs when placing material in stacks.
 - 4) Imprinting is out of resister.
 - 5) Slippage occurs as the material comes closer and closer to the end of the stack.

- b. Cause
Excessive spacing between the feed rubber belt and the separating roller.
- c. Correction
Adjust the separating roller adjustment knob by slightly turning it CCW until optimum spacing can be obtained.

2. Slippage of Material (Continued)

- a. Symptom
Material still slips off even if the separating roller is fully tightened.
- b. Cause
The rubber wheel on separating roller or rubber feed belt is worn out.
- c. Correction
Replace.

3. Damage of Material

- a. Symptoms
 - 1) The material is crumpled torn or folded.
- b. Cause
 - 1) Improper adjustment of the separating rollers
 - 2) Faulty material.
 - 3) Excessive pressure of the pressure plate.
 - 4) Worn feed belt.
- c. Correction
 - 1) Avoid overloading.
 - 2) Separate each sheet of material.
 - 3) Adjust the spring tension of the pressure plate.
 - 4) Replace feed belt.

4. Double Imprinting

- a. Cause
 - 1) The trip finger is contacting the pressure spring.
 - 2) The trip finger tension spring is loose.
- b. Correction
 - 1) Adjust the pressure spring.
 - 2) Shorten the trip finger tension spring inside the machine or replace it.

5. Erratic Sheet Feeding

- a. Symptom
 - 1) The material is not ejected from the out-feed rollers.
 - 2) The feed roller does not feed material forward.
- b. Cause
 - 1) Ink and dust are attached to the rollers.

- 2) The roller is worn out.
- c. Correction
 - 1) Remove ink and dust from the double rubber roller with a cloth saturated in Kiwi No. 8 ink Conditioner.
 - 2) Replace the rubber roller wheel.
 - 3) Adjust pressure plate pressure.

6.
 - a. Symptom
Sheets or Labels discharge over the top of spring loaded guide roller.
 - b. Correction
 - 1) Reduce printing pressure by lowering hub pressure roller.
 - 2) Adjust pressure spring. (Part No. 7-23—page 18).
 - 3) Pull sheets over the edge of a table placing a downward curl into leading edge.

7.
 - a. Symptom
Imprints are smeared and blurred.
 - b. Correction
 - 1) Clean steel or rubber type with a cloth saturated in Kiwi No. 8 ink conditioner.
 - 2) Clean ink transfer roller with Kiwi No. 8 ink conditioner.
 - 3) Replace ink Transfer Roller if badly worn or grooved.

8.
 - a. Symptom
— Ink Roller cannot be adjusted when turning adjustment knob.
 - b. Correction
 - 1) Clean eccentric shaft end with Kiwi No. 8 ink conditioner.
 - 2) Clean face and bore into which eccentric shaft fits with Kiwi No. 8 ink conditioner.

PARTS LIST—SERIES M LABEL IMPRINTERS

Ⓐ : Assembly

Qty : Quantity used with a machine

PARTS FOR MODEL M1

Part No.	Description	Qty	Part No.	Description	Qty
1-8	Stop Pin	2	5-9	Gear (25T)	1
1-9	Pressure Guide	1	5-10A	Gear (25/36T)	1
1-9A	— ditto — (2-3/4") 70mm	1	5-10B	Gear (25/39T)	1
1-12	Feed Plate (6-5/16") 160mm	1	5-10C	Gear (25/42T)	1
1-12	— ditto — (10") 250mm	1	5-10D	Gear (25/29T)	1
1-13	Pin	1	5-10E	Gear (25/32T)	1
1-15	Ⓐ Sheet Guide (External)	1	5-15	Rubber Belt	1
1-16	Knob for Sheet Guide	1	5-16	Feed Roller	1
1-20	Sheet Guide (Internal)	1	5-19	Spring for Feed Roller	1
1-21A	Ⓐ Stop Plate for Guide	1	5-24	Crank Handle	1
1-22B	Machine Screw	2			
			6-1	Shaft	1
3-2	Tighten Nut	4	6-2A	Gear (34T)	1
3-3	Washer	19	6-2B	Gear (31T)	1
3-4	Rubber Feet	4	6-2C	Gear (28T)	1
3-5	Washer	4	6-2D	Gear (41T)	1
3-6	Fit Plate for Switch	1	6-2E	Gear (38T)	1
3-7	Rubber Plate	4	6-3	Feed Roller	1
3-12	Switch	1	6-4	Rubber Belt	2
3-13A	Power Supply Line	1	6-10	Cogbelt for Motor Drive	1
3-13B	Lead Line (Blue)	1			
3-13C	Lead Line (Gray)	1	7-1	Shaft	1
3-14	Knock Pin	1	7-2	Gear (48T)	1
3-15	Motor	1	7-3	Separating Roller	1
			7-4	Rubber Belt	1
4-3	Decoration Plate	1	7-7	Shaft	1
4-4	— ditto —	1	7-9	Pressure Plate	1
4-5	Ⓐ Catcher	1	7-9A	Pressure Plate (2-3/4") 70mm	1
4-11	Bushing	1	7-9B	Ⓐ Pressure Plate S Type	1
			7-10	Collar	1
5-3	Shaft	1	7-11	Spring	1
5-4A	Gear (38T)	1	7-13	Spring	1
5-4B	Gear (32T)	1	7-14	Shaft	1
5-5A	Gear (20/32T)	1	7-15	Spring Case	1
5-5B	Gear (26/32T)	1	7-16	Ring Washer	2
5-7	Gear (25/55T)	1			

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Parts for Model M1 (Continued from Page 15)

Part No.	Description	Qty	Part No.	Description	Qty
7-17	Spring	1	12-1	Trip Finger	1
7-19	(A) Cam	1	12-5	Taper Pin	1
7-21	Lever	1			
7-23	(A) Collar with Spring	1	13-1	Electric Counter	1
			13-2A	Microswitch	1
8-1	Shaft	1	13-2B	Cover for Microswitch	1
8-2	Gear (25T)	1	13-3	Plug Socket	1
8-3	Roller	2	13-4	Plate Washer	1
8-5	Rubber Belt	2			
8-9	Spring	1	15-4	Wing Nut	1
8-11	(A) Idle Gear	1	15-5	Machine Screw	1
8-12	Gear (20/50T)	1			
8-13	Washer	1	16-4B	Machine Screw	2
9-1	Shaft	1	18-1	Tool Box	1
9-4	Double Metal Roller	1	18-2A	Type Case	1
9-6	Gear (25T)	1	18-2B	Tweezer	1
			18-3A	Inking Board	1
10-1	Spline Shaft	1	18-3B	Bakelite Board	1
10-2	(A) Spline Shaft Holder	1		Oiler	1
10-5	Ratchet Gear	1		Screw Driver (1/8") 3mm (-)	1
10-6	Ratchet Gear with Cam	1		- ditto - #2 (+)	1
10-7	Gear with Clutch	1		- ditto - (3/8") 10mm (-)	1
10-8	Spring (Light)	1			
10-8A	Spring (Strong)	1	19-5	Torsion Coiled Spring	1
10-9	Idle Roller	1	19-6	Shaft	1
10-14	Leaf Spring	1	19-7	Out Feed Roller	1
10-15	Stopper	1	19-8	Rubber Belt	1
			19-9	Guide Roller	1
11-1	Shaft	1		Extra Board for Feed Plate	1
11-2	Gear (30T)	1		(6-5/16") 160mm	
11-3	Pressure Roller	1		- ditto - (10") 250mm	1
11-4	Rubber Belt	1			
11-9	Spring	1			
11-11	(A) Adjusting Nut for Pressure Roller	1			

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PARTS FOR MODEL M3 and M34

The parts not listed below are the same with Model M1

Part No.	Description	Qty	Part No.	Description	Qty
M3-1-9	Pressure Guide for M3	1	M3-23-2	Ⓐ Bearing Cap	1
M3-1-12	Stacking Plate for M3	1	M3-23-3(1)	Arm for Inking System Shaft	1
M3-1-13	Pin for M3	1	M3-23-4	Guide for M3-23-3 (1)	1
M3-1-15	Sheet Guide (External)	1	M3-23-8	Wing Screw (M4 x 12)	1
M3-5-3	Shaft for M3	1	M3-23-10	Wing Screw (M6 x 20)	1
M3-6-1	Shaft for M3	1	M3-24	Ⓐ Assist Feed Roller for M3	1
M3-6-14	Collar	1	M3-24-6B	Oldham's Coupling	1
M3-7-1	Shaft for M3	1	M3-24-6C	Oldham's Coupling	1
M3-7-7	Shaft for M3	1	M3-24-10	Belt for M3-24	1
M3-8-1	Shaft for M3	1	M3-24-17	Side Feed Roller for M3	1
M3-9-1	Shaft for M3	1	M3-24-21	Stand for M3	1
M3-10-1	Spline Shaft for M3	1	M3-24-22	Adjusting Screw	1
M3-11-1	Shaft for M3	1	M3-25-1	Screw (M3 x 3)	1
M3-11-3	Pressure Roller for M3	1	M3-25-2A	Pan Hd. Screw (M5 x 12)	3
M3-11-4	Rubber Belt for M3	1	M3-25-2B	— ditto — (M5 x 16)	1
M3-12-16	Collar	1	M3-25-4	— ditto — (M3 x 35)	1
M3-19-6	Shaft for M3	1	M3-25-5	— ditto — (M3 x 8)	4
M3-19-7	Out Feed Roller for M3	1	M3-25-6	Bind Hd. Screw (M4 x 8)	12
M3-19-8	Rubber Belt	1	M3-25-7	Flush Bolt (W3/8" x 16)	1
M3-22-1	Ⓐ Stand for Stacking Plate	1	M3-25-9	Nut	1

PARTS FOR MODELS M4 and M34

The parts not listed below are the same with Model M1

Part No.	Description	Qty	Part No.	Description	Qty
M4-7-21	Lever for M4	1	M4-14-15	Spring	1
M4-10-16	Ratchet Gear with Cam	1	M4-14-16	Cover for spring	1
M4-12-8	Ⓐ Rod	1	M4-14-20	Collar	1
M4-12-10	Ⓐ Lever Shaft	1	M4-16-15	Special Screw	1
M4-12-11B	Lever	1	M4-16-17	Flush Screw (M4 x 8)	3
M4-12-13A	Collar	1	M4-16-18	— ditto — (M3 x 8)	4
M4-12-13B	— ditto —	1	M4-16-23A	Screw (M4 x 8)	2
M4-14-1	Ⓐ P.I.S. Adjusting Shaft	1	M4-16-23B	— ditto — (M4 x 5)	1
M4-14-3	Gear (62T)	1	M4-16-27	— ditto — (M3 x 30)	2
M4-14-4	Cam	1	M4-16-28	Washer	3
M4-14-8	Ⓐ Clutch Shaft	1	M4-16-29	Screw	1
M4-14-13	Collar	1			

PARTS FOR QUICK DRY INKING SYSTEM (See Fig. 7)

Part No.	Description	Qty	Part No.	Description	Qty
15-3A	Ⓐ Complete Assembly for Model M1 and M4	1	Q07-1	Ink Transfer Rubber Roller	1
15-3B	Ⓐ Complete Assembly for Model M3 and M34	1	Q14	Ink Roller	1
Q33-1	Spline Holder	1	Q15-4	Wing Nut	1
Q06-1A	Spline Shaft for Model M1 and M4	1	QSU-4	Wing Bolt	1
Q06-1B	Spline Shaft for Model M3 and M34	1	Q11	Adjustment Knob	1
Q33-2	Ⓐ Cover & Eccentric Shaft Assembly		Q03	Machine Screw	1
			Q10	Hub Spline Shaft	1

PARTS FOR TYPE HUB

T-Type Hub

R-Type Hub

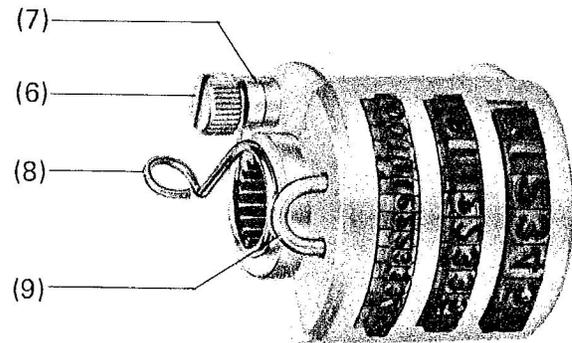
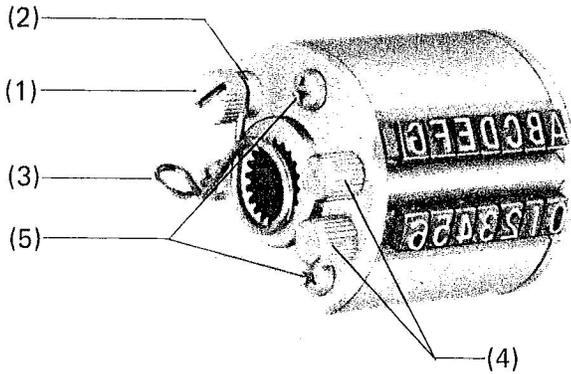


Fig. 21

Item No.	Part No.	Description
(1) & (6)	HUB 10-5	Spring Holding Screw
(2)	HUB 10-7T	Spring Holding Collar for T Hub (3mm)
(3) & (8)	HUB 10-4	Spring
(4)	HUB 10-6T	Type Holding Pin for T Hub (40mm) or (30mm)
(5)	HUB 6-M3X8	Phillips Screw
(7)	HUB 10-7R	Spring Holding Collar for R Hub (4mm)
(9)	HUB 10-3R	U Shape Type Holding Pin for R Hub

