Teletype Corporation
Skokie, Illinois, U.S.A.

Errata Sheet For
Specification 5148S
Issue 15, March, 1963

ERRATA SHEET CORRECTING SPECIFICATION 5148S ISSUE 15, FOR THE PAPER WINDER PW200** THROUGH PW208**

NOTE

This Errata Sheet will be obsolete when Issue 16 of Specification 5148S is available.

1. Corrections and Revisions

a. Page 1 (1) Paragraph 1, add the following NOTE before Paragraph 1:

NOTE

For Bell System Codes see Teletype Bulletin 1129B.

(2) Paragraph e, delete this paragraph and substitute the following: e. The 142549 Synchronous Gear Reduction Motor operates on 115 volts plus or minus 10%, 60 cycles, single phase AC power. The motor rotates at 1800 rpm speed into a 30.1 spiral gear reducer (built in) and has an output speed of 60 rpm. The 146890 Induction Motor operates on 115 volts plus or minus 10% single phase 50/60 cycles AC power. The motor rotates at 1375/1675 rpm speeds into an 18:1 spiral gear reducer (built in) and has an output speed of 76/93 rpm. Both motors require a 122548 Capacitor (.95 - 1.05 MFD) for split phase starting and running. The paper spindle of Paper Winder PW206**, PW207**, PW208** is directly connected to the motor through a friction clutch mechanism that winds the standard 8-1/2 inch wide printed teletypewriter paper.

b. Page 4, Paragraph (6), change this paragraph to read: Remove all grease from the gear housing.

c. Figure 5, Latch Spring Tension. Change "Min. 20 oz." to read: Min. 22 Oz.

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INSTRUCTIONS FOR INSTALLING AND ADJUSTING PAPER WINDER PW200** THROUGH PW208** ON A MODEL 15 PRINTER COVER OR MODEL 28 CABINET, THE 129428 MODIFICATION KIT TO PROVIDE REVERSE OPERATION OF PAPER WINDER, THE 104851 RESISTOR MODIFICATION KIT, AND THE 136146 SYNCHRONOUS MOTOR MODIFICATION KIT

1. GENERAL

*a. The Paper Winder (PW200** through PW208**) is used to automatically wind the printed copy on a paper cylinder as it emerges from the cover of a Model 15 Printer or from the Model 28 Console Cabinet equipped with the 153901** Modification Kit (Specification 5805S). Paper Winders PW200** through PW205** are equipped with the 114684 Universal Motor (brush type), PW206** and PW208** are equipped with the 142549 Synchronous Motor (brushless), and PW207** is equipped with the 146890 Induction Motor.

b. The 104851 Modification Kit contains a 100 ohm resistor and is furnished with Paper Winders PW204**, PW205** for 110 volt DC or 25 cycle AC operation. This kit is not used if the 136146 Modification Kit (par. 1.d.) is used.

c. The 129428 Modification Kit when installed on a paper winder equipped with a series motor provides reverse rotation to allow the use of 2-copy paper with interleaved carbon. The original copy is torn off while the carbon copy is wound up. The carbon passes over the top of the paper winder and accumulates in a basket at the rear.

d. The 136146 Modification Kit is used to convert Paper Winders PW200** through PW205** equipped with the 114684 Universal Motor (brush type) to the 142549 Synchronous Speed Reducer Motor (brushless).

e. The 142549 Synchronous gear reduction motor operates on 115 volts, 60 cycles, single phase AC. The motor has a 30: 1 speed reduction and has an output shaft speed of 60 rpm. The 146890 Induction Motor operates on 115 volts plus or minus 10%, single phase, 50/60 cycles AC power. The motor requires a 122548 Capacitor (.95 - 1.05 MFD) for split phase starting and running. The motor rotates at 1375/1675 rpm speeds into an 18: 1 spiral gear reducer (built in) and has an output speed of 76/93 rpm. The paper spindle of Paper Winder PW206**, PW207**, PW208** is directly connected to the motor through a friction clutch mechanism that winds the standard 8-1/2 inch wide printed teletypewriter paper.

f. The following parts (in bag attached to the unit) and literature are furnished with the paper winder:

2	2201	Nut	2	4814	Washer, Lock
2	3438	Washer, Flat	2	7099	Screw, Thumb
2	3900	Bushing	4	104473	Bushing (Not furnished with PW201**, PW204** PW206**, PW207**)
1	1543WD	Diagram, Wiring			

g. The 104851 Modification Kit consists of:

2	2669	Washer, Lock	2	112626	Nut
1	89239	Connector - 3 Wire	1	112695	Cap - 3 Wire
1	104849	Resistor - 100 ohm	2	125140	Screw, Wood
1	104850	Base	2	151723	Screw

h. The 129428 Modification Kit consists of:

1	92115	Screw, Socket	1	129430	Gear
1	129429	Gear W/Hub	1	138166	Screw, Socket

i. The 136146 Modification Kit consists of:

1	2191	Washer, Lock	1	122548	Capacitor
1	3639	Washer, Lock	1	142549	Motor
2	6033	Washer, Lock	1	142551	Bracket
2	49514	Nut	1	142556	Cable Assembly
1	73180	Switch	1	142557	Cable Assembly
2	151724	Screw	2	151626	Terminal, Lug
1	84579	Washer, Flat	1	31551RM	Wire 1 ft.
1	125015	Washer, Flat	1	153537	Screw
1	146358	Plate, Identification	1	146359	Plate, Identification

j. For part numbers referred to, for parts ordering information and for Bell System codes see Teletype Paper Winder and Model 15 Printer Parts Bulletins 1129B and 1037B respectively.

2. INSTALLATION

a. 104473 Bushing for Model 15 Typing Unit (using narrow paper) used with Paper Winders PW200**, PW202**, PW203**, PW205**.

(1) Remove the type bar carriage from the typing unit.

(2) Unhook the line feed detent lever spring from its spring post.

(3) Back off the three set screws (located in the right-hand hub of the platen) that hold the platen to its shaft. Withdraw the platen shaft and remove the platen.

(4) Unhook the two tape chute springs from their spring posts.

(5) Loosen the pressure roller release lever shaft set screws and withdraw the shafts sufficiently to release the paper chute; remove the chute.

(6) Remove from their shafts, the front and rear pressure rollers that do not bear on the paper and replace them with the 104473 Bushings.

(7) Replace the paper chute and position the pressure roller release lever shafts so that their outer ends project not more than 1/32" beyond the outer surfaces of the paper chute; tighten the release lever shaft set screws.

(8) Replace the platen and platen shaft; making certain that the platen set screws are properly seated in the indents of the shaft.

(9) Rehook the line feed detent lever spring.

(10) Replace the carriage.

(11) Make the pressure roller spring tension adjustment in accordance with standard practice.

b. 104851 Modification Kit

(1) Mount the 104849 Resistor together with the 104850 Base using the two 125140 Screws on a wooden table or the two 151723 Screws, 2669 Lock Washers, and 112626 Nuts on an all-metal table.

(2) Connect the 104849 Resistor in series with one of the power leads on the paper winder in accordance with Wiring Diagram 1543WD. Attach the 89239 Connector and 112695 Cap furnished to the cord, for this connection, furnished by the customer.

c. 129428 Modification Kit (Figure 2)

(1) Disconnect the plug from the power supply and remove the 101021** Cover by removing the 8543 Screw and by backing off two 8543 Screws (the cover has two slotted mounting holes).

(2) Depress the 93639 Latch Assembly and remove the paper winder spindle from its mounting to facilitate installation of the new parts.

(3) Remove the four 151723 Screws, 3438 Washers and 3639 Lock Washers which fastens the 114684 Motor to the 102490** Bracket, being careful not to loosen any electrical connections.

(4) Remove the end thrust screw, nut and ball bearing from the gear housing, being careful not to lose the bearing.

(5) Remove the gear housing from the motor end bell by removing three screws, being careful not to damage or lose the gasket, then remove all excess grease from the pinion and motor end bell.

(6) Remove the gear housing cover by removing three screws, being careful not to damage or lose the gasket, then remove all grease from the gear housing.

(7) Drive out and discard the pins which retain the 129689 Gear to the motor shaft and the 119477 Gear W/Hub to the gear housing shaft. Remove and discard both gears.

(8) Install the 129429 Gear W/Hub on the gear housing shaft using the 92115 Set Screw. Do not tighten the screw fully at this time.

(9) Install the 129430 Pinion Gear on the motor shaft using the 138166 Set Screw. Do not tighten the screw fully at this time.

(10) Reinstall the gear housing and gasket on the motor end bell.

(11) Reinstall the end thrust ball bearing, screw and nut. Turn in the screw until the motor shaft has only 1/32" end play, then tighten the nut.

(12) Looking through the opening provided by the removal of the gear housing cover, position either the pinion gear or the fiber gear so that the teeth of the fiber gear engage the teeth located in the middle section of the pinion. Check to see that there are no binds, then tighten the set screw of each gear (tightening of the fiber gear set screw may be accomplished by removing the lubricating hole screw, shown on Figure 2, and inserting the wrench through the lubricating hole). Reinstall the gear housing cover and gasket. The lubricating hole screw need not be replaced until the gear housing is filled with grease (see figure 6).

(13) Remount and position the motor on the bracket so that the gear housing shaft is in line with the spindle cradle at the other end of the paper winder bracket.

(14) Lubricate the gears as specified (under "LUBRICATION") in this specification.

(15) Reinstall the spindle and check the alignment and the paper spindle shaft end play adjustment as specified (under "ADJUSTMENTS") in this specification.

(16) Plug in and start the winder. Observe the operating characteristics and be sure that there are no binds and that the motor runs quiet and does not overheat.

(17) Reinstall the 101021** Cover.

d. 136146 Modification Kit (Figures 3, 4)

NOTE

All parts removed should be retained for reassembly unless otherwise specified.

(1) Follow procedure in Paragraph 2c(1).

(2) Remove ground lead from under the head of the front mounting screw of the 114684 Universal Speed Reducer Motor.

(3) Follow procedure in Paragraph 2c(2).

(4) Loosen the two 92115 Set Screws Mounting the friction clutch (assembled) onto the 114684 Motor Shaft.

(5) Remove all the leads from the 76117 Block Assembly.

(6) Remove the four 151723 Screws, 3438 Flat Washers and 2382 Lock Washers which fasten the 114684 Motor to the 102490** Bracket. Discard one 6810 Screw, two 2382 Lock Washers and the 114684 Motor.

(7) Remove and discard the two 1181 Screws, 2191 Lock Washers, 78287 Bushings and resistor mounting (including 93635 Resistor, 77808 Resistor, 1297 Screws, 89969 Insulating Washers, 3438 Flat Washers, 2191 Lock Washers and 3598 Nuts).

(8) Remove and discard the 105635 Switch and 88085 Cable.

(9) On the spindle side of the 102490 Bracket, at its base, remove two 151723 Screws, 3438 Flat Washers and 2382 Lock Washers.

(10) For paper winders equipped with the 93642 Cord Assembly remove and discard the 93642 Cord Assembly from the top terminals of the 76117 Terminal Block #1 and #4. Replace with the 142556 Cable Assembly and by connecting the BLACK lead to the top #1 and the WHITE lead to the top #4 terminals. The GREEN lead terminal should be placed under the 125015 Flat Washer of the 153537 Ground Screw. (This provides a ground for the paper winder).

(11) For paper winders equipped with the 93643 Cord Assembly remove and discard the 93643 Cord Assembly with receptacle from Terminals #22 and #23 on the printer base terminal blocks. Replace with the 142557 Cable Assembly and connect the BLACK lead to Terminal #22, the WHITE lead to Terminal #23 and place the GREEN lead under the 7002 Flat Washer of the 1160 Ground Screw of the printer base. See Wiring Diagram 1543WD.

(12) Install the 142551 Bracket to the spindle side of the 102490** Bracket using two 151723 Screws, 2382 Lock Washers and 3438 Flat Washers. Install two 151724 Screws, using 2382 Lock Washers and 3438 Flat Washers through the 142551 Bracket and 102490** Bracket into the 101023** Base Plate (for 6,6-1/2 or 8" paper) or 110996** Base Plate (for 5" paper).

(13) Install 153537 Screw (Ground), 2191 Lock Washer and 125015 Flat Washer into the 142551 Bracket.

(14) Mount the 122548 Capacitor in a vertical position to the 142551 Bracket on the side opposite the spindle re-using one 151623 Screw, 3639 Lock Washer and 84579 Flat Washer.

(15) From the 31551RM Wire cut two lengths, one 4 inches long and the remainder 8 inches long. Skin, twist and tin approximately 1/8 inch on each of the four ends; also the three lead ends on the 142549 Motor.

(16) Mount the 73180 Switch (includes 91683 Nut and 93075 Nut) to the 102490 Bracket with the switch terminals in the upward position.

(17) Attach and solder one 151626 Terminal to one end of the 4 inch wire and connect this end to the No. 1 position on terminal block. The other end solder to the left terminal of the 73180 Switch. One end of the 8 inch wire is soldered to the right terminal of the switch (viewed from rear of unit) and the other end is soldered to the right terminal of the switch (viewed from rear of unit) and the other end is soldered to the bottom terminal of the 122548 Capacitor along with the black lead from the 142549 Motor. The RED motor lead is soldered to the top terminal of the capacitor. Attach and solder one 151626 Terminal to the BLUE motor lead and connect to the No. 4 position on the 76117 Terminal Block (Figure 3).

NOTE

The terminal lugs must be inserted under the terminal block screws with the wires extended down from the terminals. For counterclockwise rotation of the paper winder, remove the wire from the bottom of the capacitor that leads to the 73180 Switch and resolder to the top of the capacitor (Figure 4).

(18) For Bell System Units only: On paper winders 15A35 (formerly 15A) and 15C35 (formerly 15C) replace the 120458 Bell System code designation plate by means of the two 93597 Screws with the 146353 Identification Plate stamped '15E'. Discard the 146359 Plate. On paper winders 15B35 (formerly 15B) and 15D35 (formerly 15D) replace the 120458 Bell System code designation plate with the 146359 Identification Plate stamped '15F'. Discard the 146353 Plate. Refer to Figure 3.

(19) Install the 142549 Motor to the 142551 Bracket using the two 3438 Flat Washers, 6033 Lock Washers and 49514 Nuts. Mount the motor so that the shaft extends towards the paper spindle with the oil holes and name plate located on top of the motor.

(20) For PW204** and PW205** paper winders containing the 104851 Modification Kit with a 100 ohm resistor assembly for 110 volt DC or 25 cycle AC operation, discard the 104851 Modification Kit. The 142549 Synchronous Motor is to be operated on 115 volts, 60 cycles, single phase AC only.

(21) Replace the friction clutch (as a unit) approximately 1/2 inch on the motor shaft and tighten the 6807 Set Screws against the shaft flats.

(22) Follow procedure in Paragraphs 2.c.(15),(16),(17).

e. Instructions for installing the paper winder on the Model 15 Printer Cover. For Model 28 Cabinets see Paragraph 2.f.

(1) Drill two holes in the cover as shown in Figure 7, which may be used as a template.

(2) Secure the 3900 Bushings in the holes with two 4814 Lock Washers and 2201 Nuts. Do not overtighten the nuts as this will distort the bushings.

(3) Mount the paper winder on top of the cover (with the motor to the left when looking at the front of the Model 15 printer cover) by means of the two 7099 Screws and 3438 Washers. Before tightening the thumb screws, position the paper winder so that the spindle lines up with the paper as it leaves the platen. Do not overtighten the thumb screws as this will buckle the mounting plate and bind the paper spindle.

(4) The paper should be fed under the paper winder slack rod and then inserted into the paper spindle slot.

(5) For PW200** through PW205**, connect the power cord with receptacle to the terminal blocks of the Model 15 base, and remove the strap from the motor resistors in accordance with Wiring Diagram 1543WD.

*(6) For PW206**, PW207**, PW208**, connect the 142557 Cable Assembly as follows: Connect the black lead to Terminal #22, the white lead to Terminal #23 and place the green lead under the 7002 Flat Washer of the 1160 Ground Screw of the printer base. See Wiring Diagram 1543WD. Insert plug of 142556 Cable Assembly (part of PW206** PW207**, PW208**) into socket of 142557 Cord Assembly for AC power.

*(7) Paper Winder PW207 is factory wired for counterclockwise rotation. To reverse direction of rotation of the paper winder, remove the wire from the bottom of the capacitor that leads to the 73180 Switch and resolder to the top of the capacitor. (See Figure 3 and 4).

f. Refer to Specification 5805S for instructions for installing the 153901** Modification Kit on a Model 28 Console Cabinet to mount a paper winder.

*3. ADJUSTMENTS (Figure 5)

Paper winders are completely adjusted and checked at the factory. The following adjusting information is furnished as a convenience for the attendant who desires to check the adjustments or to readjust the unit (for Bell System refer to standardized adjustment information). Make the adjustments shown in Figure 6.

4. LUBRICATION (Figure 6)

a. Unless otherwise specified, one or two drops of oil at each of the places indicated will be sufficient. Use oil for lubrication at all of the places, except where the use of grease is specified.

(1) For synchronous or induction motors only (not shown)

(a) Motor bearings - identified by red holes - add ten drops of oil to each bearing before starting. Relubricate every 1,500 hours.

(b) Gear reducer - identified by yellow hole - (reducer is packed with a soft grease). Relubricate with approximately 50 drops of oil every 1,500 hours.

5. PAPER WINDER OPERATION

a. GENERAL - The Paper Winder is mounted at the rear of the teletypewriter set, or to the cover with which it is used. It automatically winds printed copy on a cylinder as it is fed from the teletypewriter set and is normally used where multi-copy paper is employed. The original of the printed copy is generally torn off at the set and the carbon copy along with the carbon paper passes to the rear where the carbon paper is accumulated in a container and the carbon copy wound on the cylinder of the winder.

b. OPERATION - The winder is driven by a self-contained motor which runs continuously, when energized, to wind the copy on the cylinder that is coupled to it by a friction clutch. A switch, located on the motor housing, controls the winder motor. This switch can remain in the on position if the winder receives its power from the set with which it is used. In this case, the winder will be turned on when the set itself is energized.

c. WINDING COPY - Feed out enough copy paper so that it can be routed to the rear, under the slack rod and up to the cylinder. Operating the cylinder by hand, wind 4 or 5 turns of copy paper onto the cylinder in its direction of rotation. Energize the winder motor and take up the slack in the copy. By means of the friction clutch on the motor drive shaft the paper will be drawn taut and held tensioned to wind the typed copy as it is fed out by the typing unit.

d. REMOVING TYPED COPY - When the cylinder has been filled with copy it is removed as follows:

(1) Tear off the copy at some convenient point between the winder and teletype-writer set and wind up the loose end.

(2) Remove the cylinder from the winder frame.

(a) Hold the latch operated on the support bracket to release the cylinder shaft.

(b) Lift the assembly up and away from engagement with the clutch arm.

(3) Remove the hub on the left end of the cylinder.

(4) Hold the roll of copy while turning the cylinder in a counter-rotation direction. This will loosen the copy sufficiently to permit the cylinder to be pulled out of the roll.

(5) Replace the hub on the cylinder and the cylinder into the winder frame, again holding the latch operated on the support bracket. While engaging the pin on the opposite hub with the clutch arm, lower the shaft on the left end into engagement with its bearing bracket and release the latch.

* * *

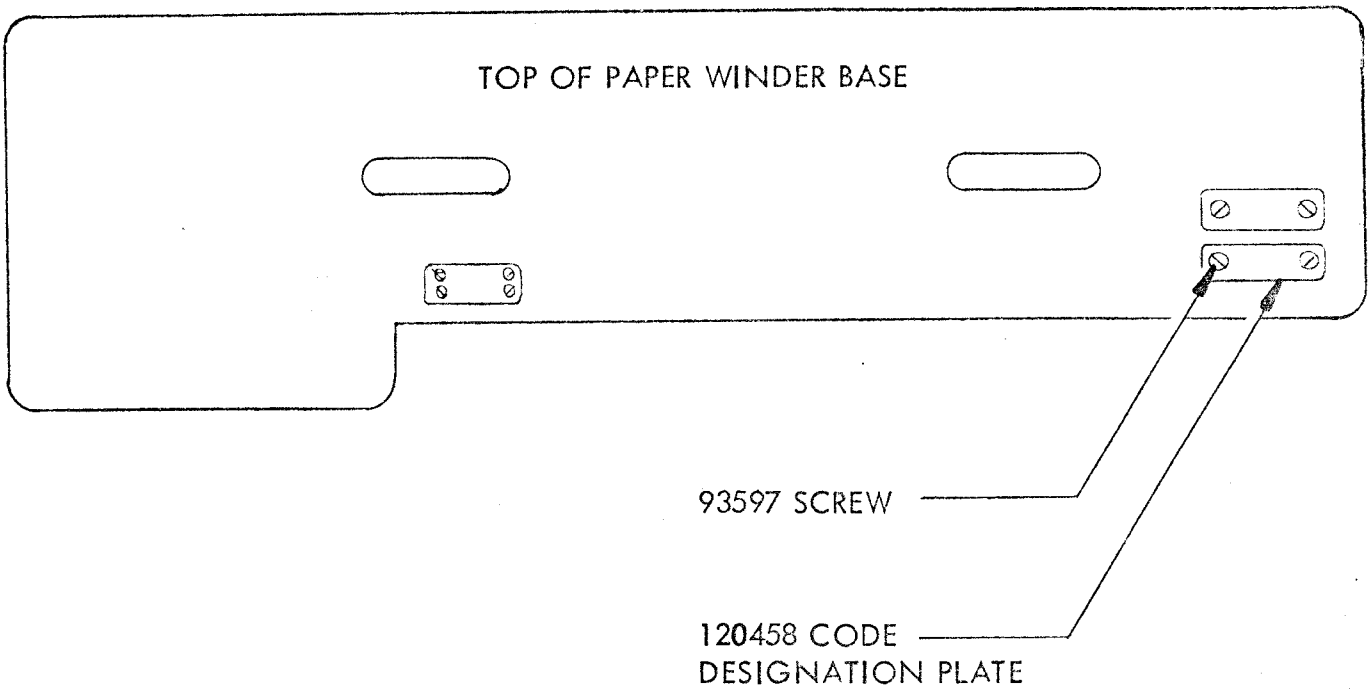


FIGURE 1.

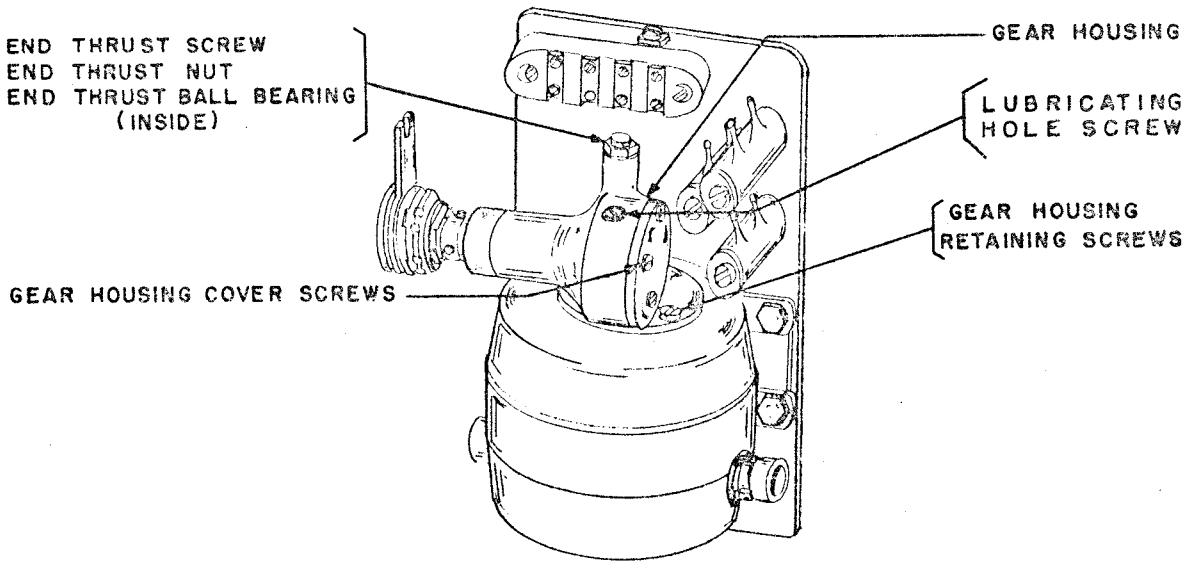
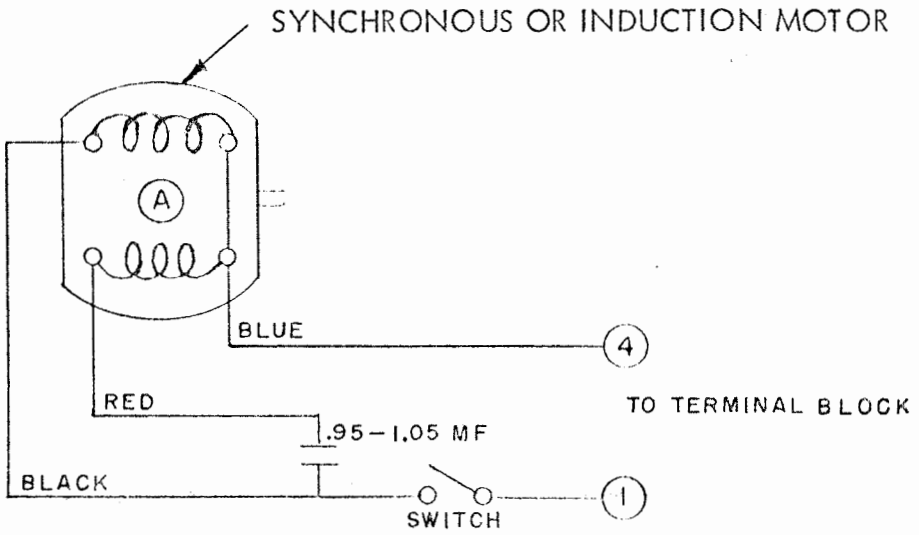
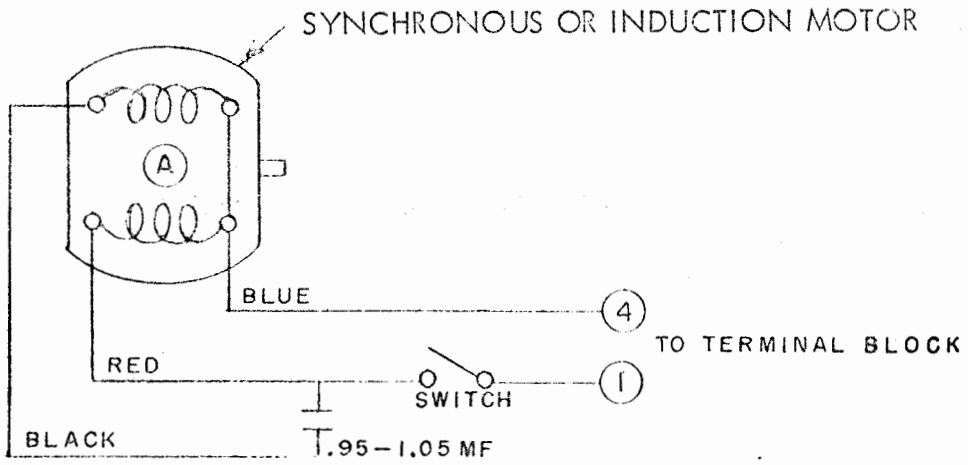


FIGURE 2



CLOCKWISE DIRECTION OF ROTATION
(VIEWED FROM END OPPOSITE SHAFT END)

FIGURE 3



COUNTER CLOCKWISE DIRECTION OF ROTATION
(VIEWED FROM END OPPOSITE SHAFT END)

FIGURE 4

PAPER WINDER

SPINDLE SHAFT END PLAY

REQUIREMENT

WITH PLAY OF SHAFT TAKEN UP AWAY FROM MOTOR. THERE SHOULD BE APPROX. 1/32" CLEARANCE BETWEEN SHOULDER ON SHAFT AND FRICTION DRIVE ASSEMBLY.

TO ADJUST

POSITION BEARING BRACKET BY MEANS OF ITS ELONGATED MOUNTING HOLES.

FRICTION CLUTCH TORQUE

TO CHECK

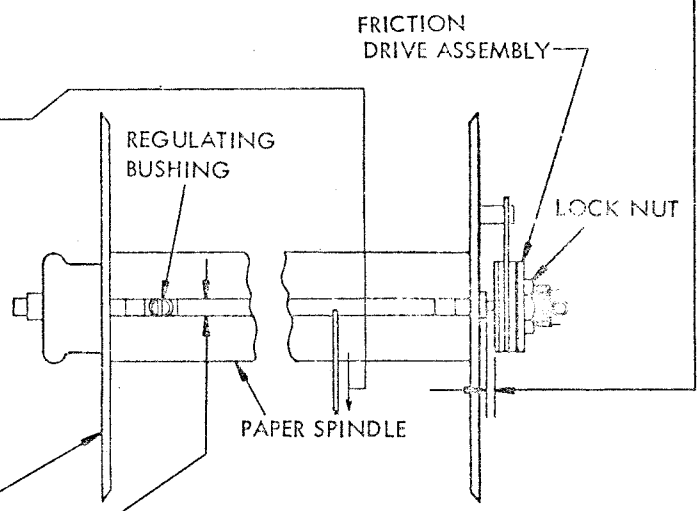
RUN PAPER WINDER WITH SPINDLE HELD STATIONARY FOR 10 MINUTES. HOOK 8 OZ. SCALE IN SLOT OF PAPER SPINDLE.

REQUIREMENT

5 TO 7 OZS. TO HOLD PAPER SPINDLE STATIONARY AGAINST MOTOR ROTATION.

TO ADJUST

WITH LOCK NUT LOOSE ADJUST CAPSTAN NUT TO MEET REQUIREMENT.



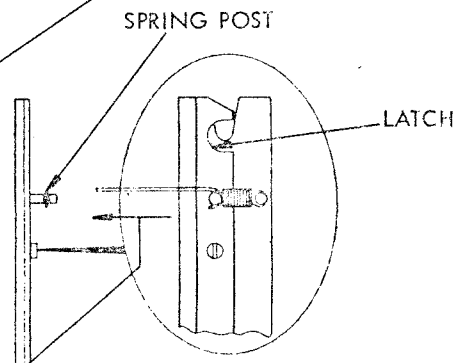
PAPER CYLINDER ADJUSTMENT

REQUIREMENT

SUFFICIENT TENSION TO RETAIN CYLINDER FLANGE

TO ADJUST

POSITION REGULATING BUSHING WITH SET SCREW LOOSE TO DESIRED TENSION.



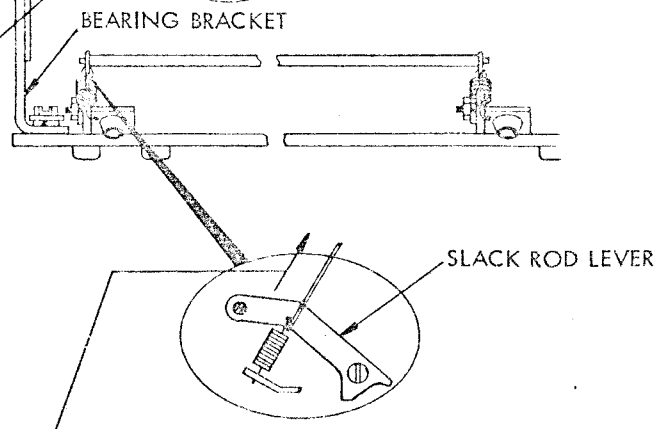
LATCH SPRING TENSION

REQUIREMENT

WITH PAPER SPINDLE REMOVED, HOOK 32 OZ. SCALE OVER SPRING POST ON LATCH. PULL HORIZONTALLY AS INDICATED.

MIN. 20 OZ. --- MAX. 30 OZ.

TO START LATCH MOVING.



SLACK ROD LEVER SPRING TENSION

REQUIREMENT

HOOK 32 OZ. SCALE UNDER SLACK ROD LEVER AT SPRING HOLE AND PULL IN LINE WITH SPRING

MIN. 19 OZS. --- MAX. 23 OZS.

TO START LEVER MOVING. CHECK BOTH SIDES

Figure 5. Paper Winder, Rewind Mechanism

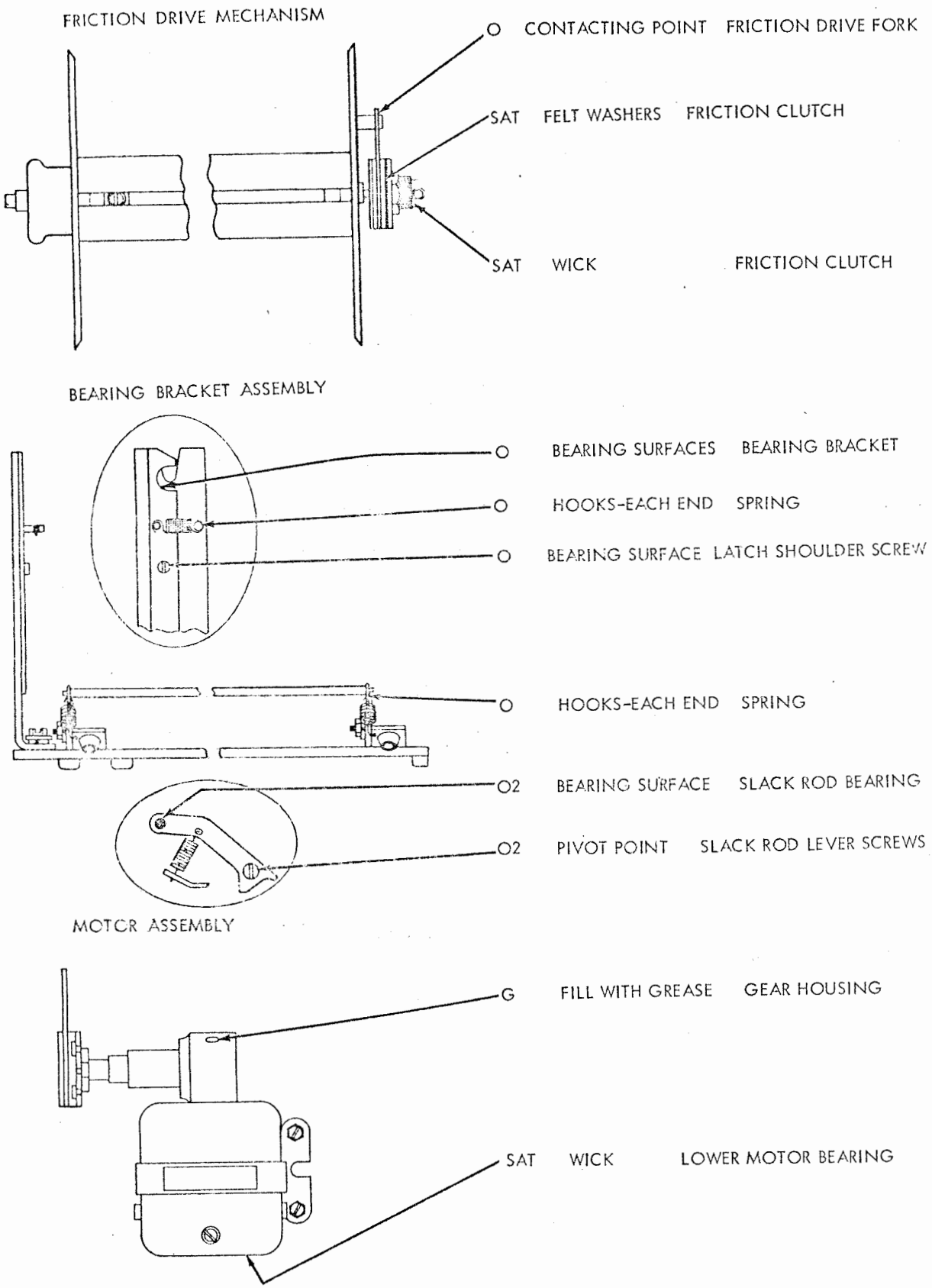


Figure 6. Paper Winder

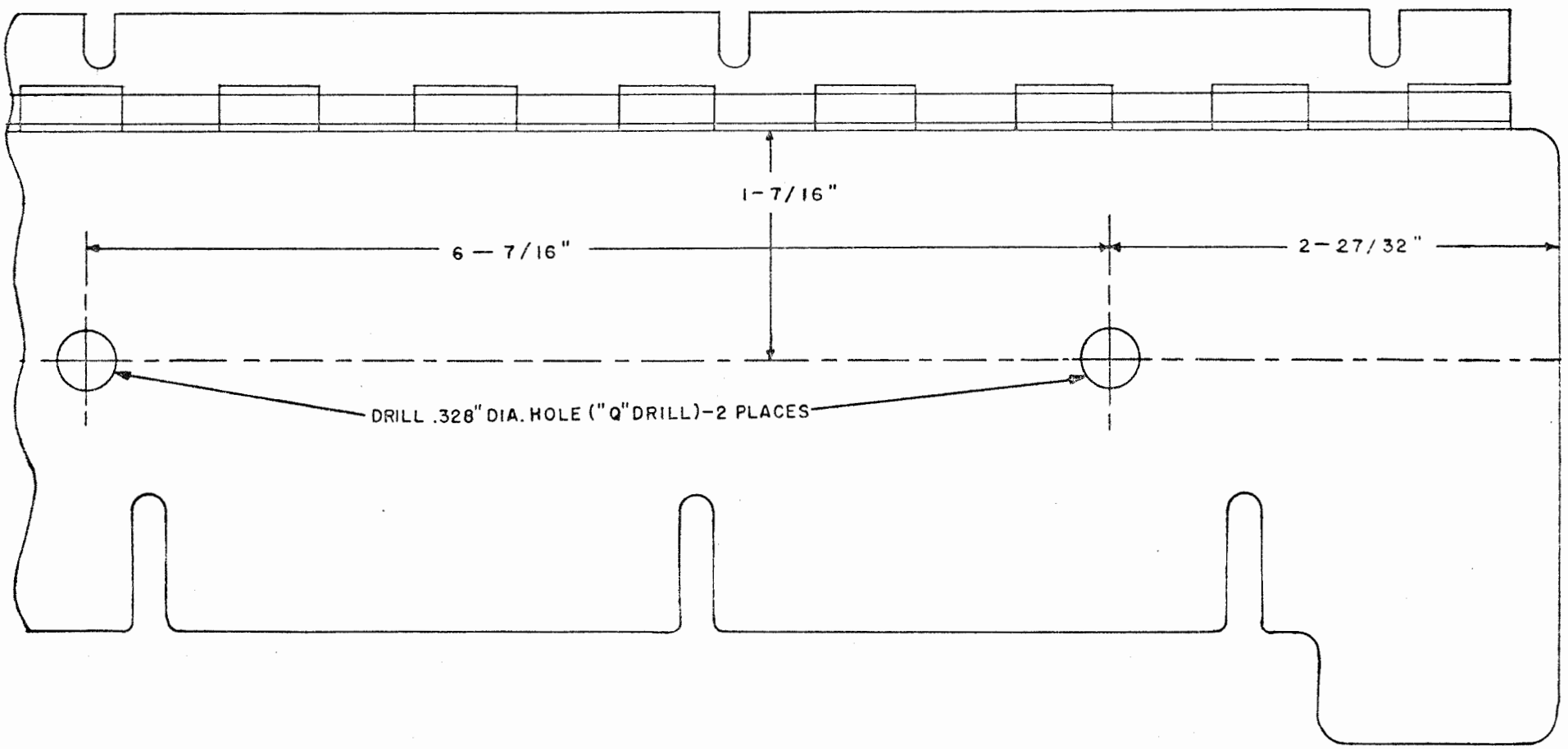


FIGURE 7. (MAY BE USED AS A TEMPLATE)