

DESCRIPTION AND INSTRUCTIONS FOR ASSEMBLING
TELETYPE MODEL 14 TAPE PRINTER
AND TYPING REPERFORATOR SETS
AS ADAPTED FOR SHIPBOARD USE

DESCRIPTION

The Teletype Model 14 sending-receiving tape printer and typing reperforator sets (with keyboards), as arranged for shipboard use, provide means for the transmission and reception of typewritten telegraph messages over a communication channel. When a receiving-only base is substituted for the keyboard base, the direct transmitting feature is eliminated. The typing reperforator in addition to typing the message, perforates it in the tape for use in a transmitter distributor. In this tape, all code combinations are perforated and the corresponding character is printed with each, except "figures" and "letters" shift, and "space". All units mounted on the table including the covers are securely clamped in place. Resilient mounts are provided between the table and the keyboard or receiving-only base, to reduce vibration and severity of shocks which might be transmitted from the table to the operating mechanism. The table legs are provided with brackets to permit bolting to the deck. A dry disc rectifier, when required, is secured to the table shelf by means of a clamp.

COMPONENT UNITS

The sets herein described consist of:

- (1) A typing unit or typing reperforator which includes a motor, selecting, printing, and function mechanisms, and in the case of the typing reperforator, perforating mechanism.
- (2) A line relay for relaying impulses from the signal line to the selector magnet.
- (3) A keyboard or receiving-only base for supporting the typing unit or typing reperforator and line relay, and for providing terminal connections for the various circuits. The keyboard, in addition, includes keylevers, transmitting mechanism, motor control relay and a switch that adapts the machine to either neutral line or polarential line operation.
- (4) A dry disc rectifier of 120 volts D.C. output for supplying current for the local circuits of the printer or typing reperforator, line relay, and test circuit of the table, and for adjusting motor voltage if necessary.
- (5) A sheet metal cover (lined with sound absorbing material) with tape reel container.

- (6) A copy holder for use with the sheet metal cover.
- (7) A metal table for supporting the complete set and rectifier. The legs of this table are provided with brackets to permit bolting to the deck.
- (8) An adapter plate to facilitate the securing of the apparatus to the table top.
- (9) Clamps for securing the rectifier to the table shelf.
- (10) A speed indicator (tuning fork) for checking motor speed.
- (11) A tape notcher (used with typing reperforator only) for notching the edge of the perforated tape, to permit the operation of stop mechanism on a transmitter distributor.

LINE CONNECTIONS

The sets are wired for use on signal lines carrying .060 ampere D.C. line current. To facilitate connections with neutral or polarential signal lines, two separate jacks and terminal blocks are provided on the table. A pair of local test jacks, complete with adjustable resistor, are also included in the electrical services of the table for convenience in operating the equipment on local test. Connections between the typing reperforator and the table jacks are accomplished by means of a transmitting line cord with black shell plug and a receiving line cord with a red shell plug.

RADIO FILTERS

Filters are provided for all circuits where the radio frequency induction might cause interference with radio receivers.

INSTRUCTIONS FOR ASSEMBLING

SECURING TABLE TO DECK

Bolt the table to the deck by using 1/2" diameter bolts in the brackets attached to the table legs. See Figure 1.

INSTALLATION OF ADAPTER PLATE AND KEYBOARD OR RECEIVING-ONLY BASE

Place the 111106 adapter plate on the table with the cut-away portion over the opening on the right side of the table top. Observe the four large tapped holes that can be simultaneously brought into alignment with the holes in the four resilient mountings on the table. See holes marked "A", Figure 2.

With one 73175 lock washer on the short threaded end of each of the four 102809 studs, thread the studs, from the under side, into the four adapter plate holes previously referred to (Figure 2).

Facilities are provided for mounting the keyboard or receiving-only base on the adapter plate so that it faces either toward the front of the table or toward the right side. If it is required that the unit involved face toward the right, first remove the two cover holding brackets and two cover guide studs, from their positions "B" on the sides of the adapter plate and transfer them to corresponding positions "C" at the front and rear of the plate.

NOTE: If a separate motor control line is to be used with the keyboard, it will be necessary to connect this line to the keyboard terminals before the keyboard is mounted on the table. See wiring diagrams WD-2146, WD-2294, and WD-2332 for TABLE, KEYBOARD AND RECEIVING-ONLY BASE CONNECTIONS respectively.

Remove the four 3/4" diameter studs from the under side of the keyboard or receiving-only base casting and use them for securing this unit to the adapter plate. Utilize that set of four holes marked "D" in the adapter plate when the unit is required to face forward, and the holes marked "E", when it is required to face toward the right. Use one of the 114127 washers, furnished with the adapter plate, next to the head of each stud.

Add three 83814 spacer washers on each of the 102809 studs previously assembled in the adapter plate and place the adapter plate with attached unit on the table so that the studs enter the holes in the resilient mountings. Secure the studs to the resilient mountings, using the 103377 washers, 2920 lock washers and 85595 nuts.

NOTE: The 104057 brackets, 104059 spacer blocks, 78301 screws and 2669 lock washers, supplied with the table, are not used with the 111106 adapter plate and should be discarded.

MOUNTING THE TYPING UNIT OR TYPING REPERFORATOR ON THE KEYBOARD OR RECEIVING-ONLY BASE

Remove the two thumb screws from the keyboard or receiving-only base and place the typing unit or typing reperforator in position on the supporting unit. Two studs in the supporting unit should engage two holes at opposite corners of the base plate of the unit being mounted. Secure by means of the two thumb screws previously removed.

MOUNTING THE COVER

Place the cover in position and make certain that it properly engages the two guide studs. Clamp the cover to its holding brackets by means of the two thumb screws furnished with the cover.

TABLE, KEYBOARD AND RECEIVING-ONLY BASE CONNECTIONS

Connect power and signal wiring to the table as indicated on wiring diagram W.D. 2146. Run four wires from the terminals of the two line jacks to terminals on a ship connection block where communication circuit connections may be made. If a separate motor control line is to be used with the keyboard, run two additional wires directly from

terminals 31 and 32 on the keyboard to the ship terminal block, passing them through outlets on the right side of the keyboard and through the opening in the top of the table at the right side of the adapter plate.

When D.C. is supplied from an external common source, remove the wires from the positive and negative terminals of receptacle "E" on the table and tape the ends. Connect positive and negative 115 volts D.C. to corresponding terminals on receptacle "D".

MOUNTING THE RECTIFIER

- (1) Using the two 103081 screws and two each of the 2449 lock washers and 2846 washers, mount the 110457 stop bracket in the front or rear set of holes in the top of the shelf braces at each side of the table; use the rear set of holes for REC10 and the front set of holes for REC29. The stop bracket should be positioned with its vertical leg to the front.
- (2) Place either an REC10 or REC29 on the table shelf behind the vertical leg of the 110457 bracket and in front of the right rear leg of the table. Slide the rectifier against the right side of the table.
- (3) Place the 110456 clamp bracket over the rectifier so that it lays against the left side and top of the rectifier and so that the holes in the bracket line up with the holes in the right side of the table and one of the sets of holes in the table shelf. When an REC10 is being secured, use the right hand set of holes in the table shelf and fasten the 110456 bracket to the shelf by means of two 105568 screws and two each of the 2449 lock washers and 2846 washers threaded up into the tapped holes in the bracket from under the shelf. The bracket should be fastened to the right side of the table using the same mounting parts and threading the screw into the bracket from the right side of the table. When an REC29 is being secured, use the left hand set of holes in the shelf and fasten the 110456 bracket to the shelf in the same manner and using the same parts as described above for securing an REC10.

When securing an REC29 the 110447 spacer block must be inserted between the 110456 bracket and the right side of the table and the bracket should then be fastened to the right side of the table by means of the two 86458 screws and two each of the 2449 lock washers and 2846 washers threaded into the bracket through the right side of the table and the spacer block.

NOTE: When REC10 is being secured the 110447 spacer block and the two 86458 screws should be discarded. When REC29 is being secured, two of the 105568 screws should be discarded.

MOUNTING THE LINE RELAY

Loosen the mounting screws of the relay clamp brackets on the rear right corner of the keyboard and spread the brackets sufficiently to permit the relay to be inserted. With the relay in position on the keyboard, slide the clamp bracket as close as possible to the relay and tighten securely.

RIBBON AND PAPER

Install a ribbon on the printer or typing reperforator as shown on Figures 3 and 5.

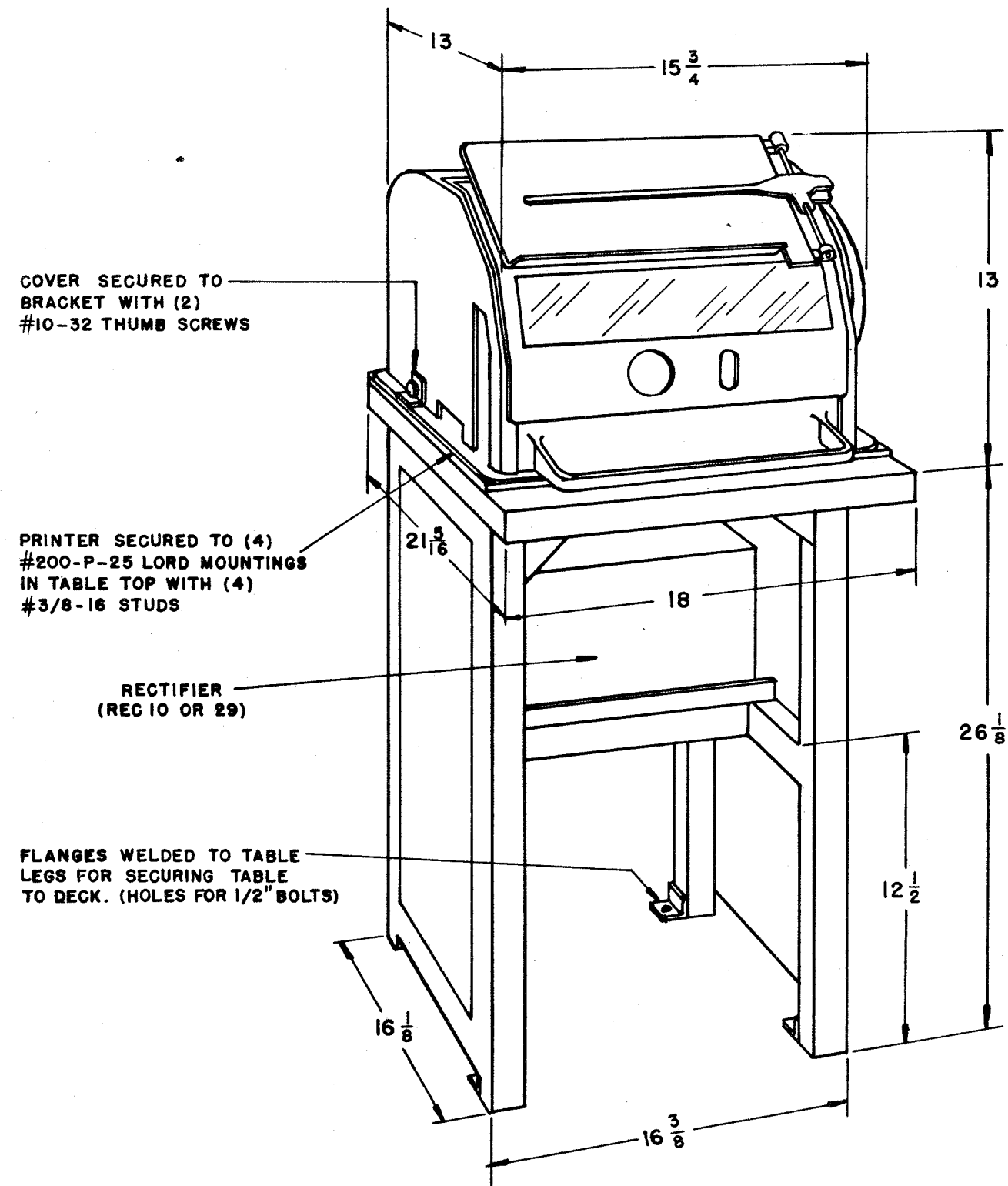
Place a roll of tape in the tape reel container and feed it through the apparatus as shown on Figures 4 and 6.

OPERATION OF THE SET

- (1) Plug the input and output cords of the rectifier into corresponding table receptacles.
- (2) When a receiving-only base is used, pass the three cords from the base through the opening in the table top and plug the power cords into corresponding receptacles. Plug the line cord into the receiving line jack as indicated.
- (3) When a keyboard is used, pass the four cords from the keyboard through the opening in the table top and plug the power cords into corresponding receptacles. Plug the two line cords into test jacks as indicated.

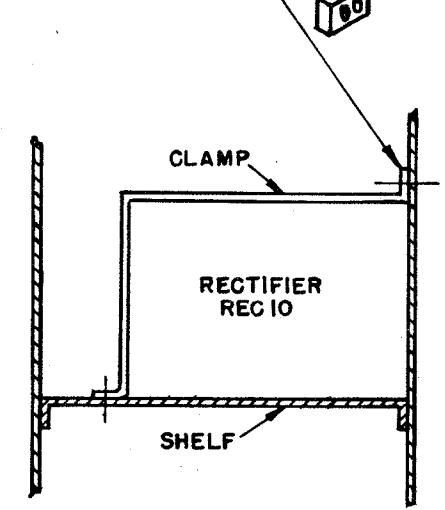
With the polar-neutral key on the keyboard in the neutral position (pulled outward) the set should be ready for test operation. When the system is ready for line operation, the line cords should be withdrawn from the local test jacks and plugged into the line jacks, as indicated on the table, and the polar-neutral key should be positioned for the type of operation intended.

* * * *

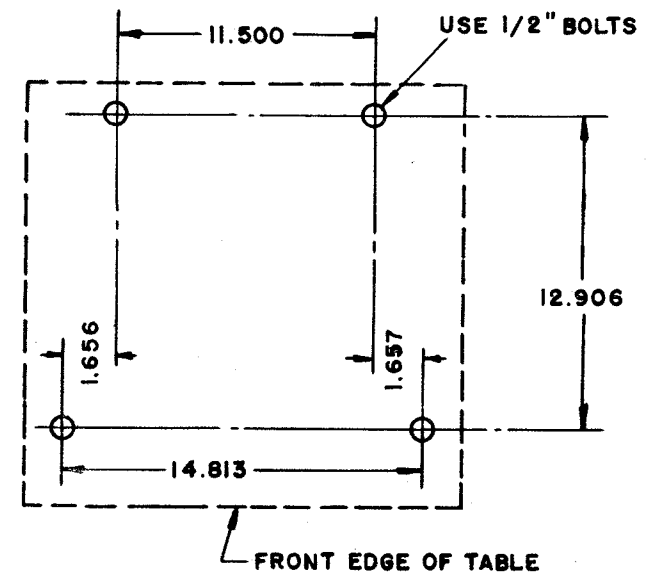


MODEL 14
SENDING-RECEIVING TAPE
PRINTER OR TYPING REPE-
RFORATOR SET

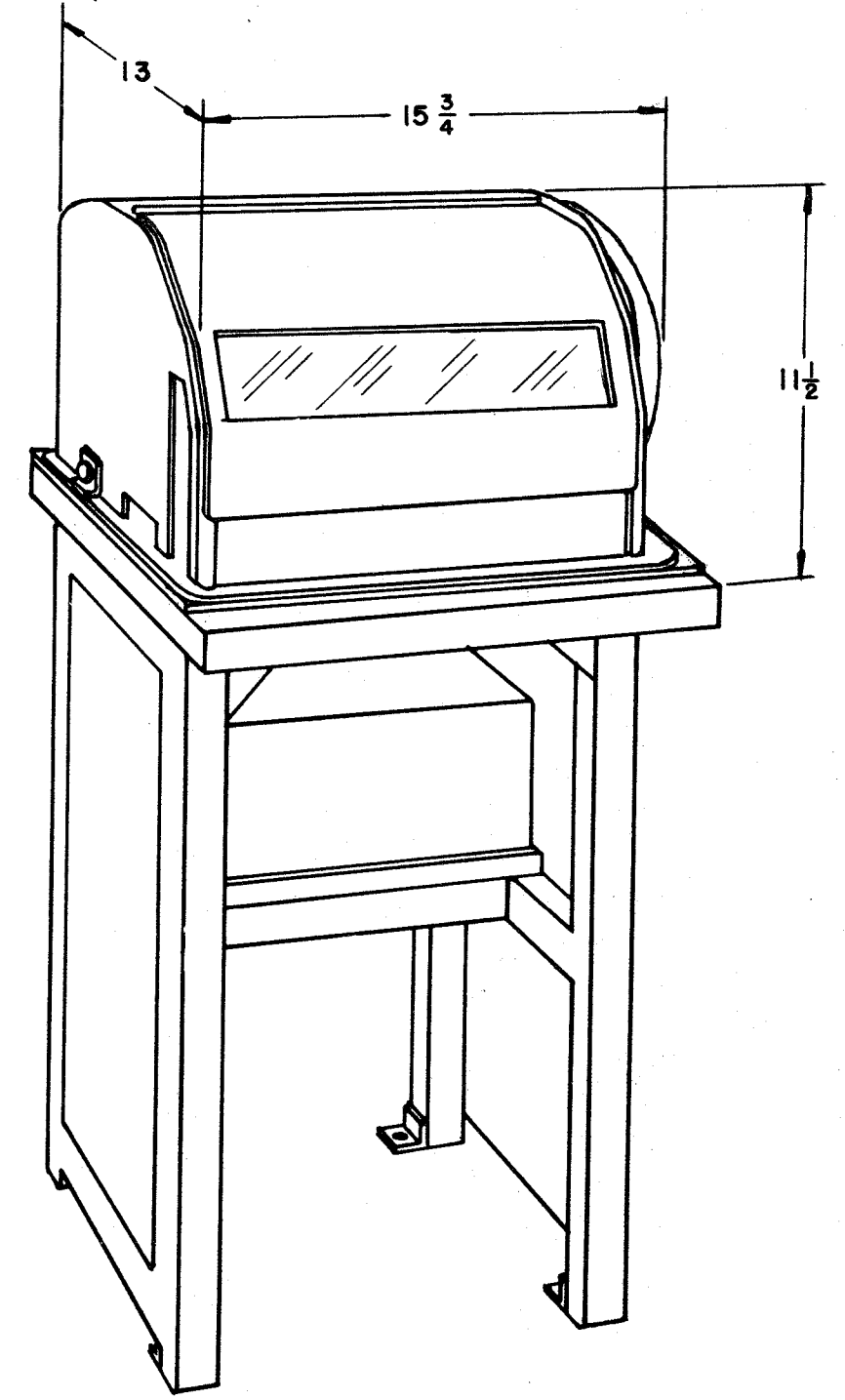
THIS SPACER BLOCK
USED HERE ON
REC 29 RECTIFIERS



SECTIONAL FRONT VIEW OF TABLE
SHOWING METHOD OF SECURING
RECTIFIER TO TABLE
SHELF



LAYOUT OF HOLES FOR
SECURING TABLE TO DECK



MODEL 14
RECEIVING-ONLY TAPE PRINTER
OR TYPING REPERFORATOR SET

FIGURE 1

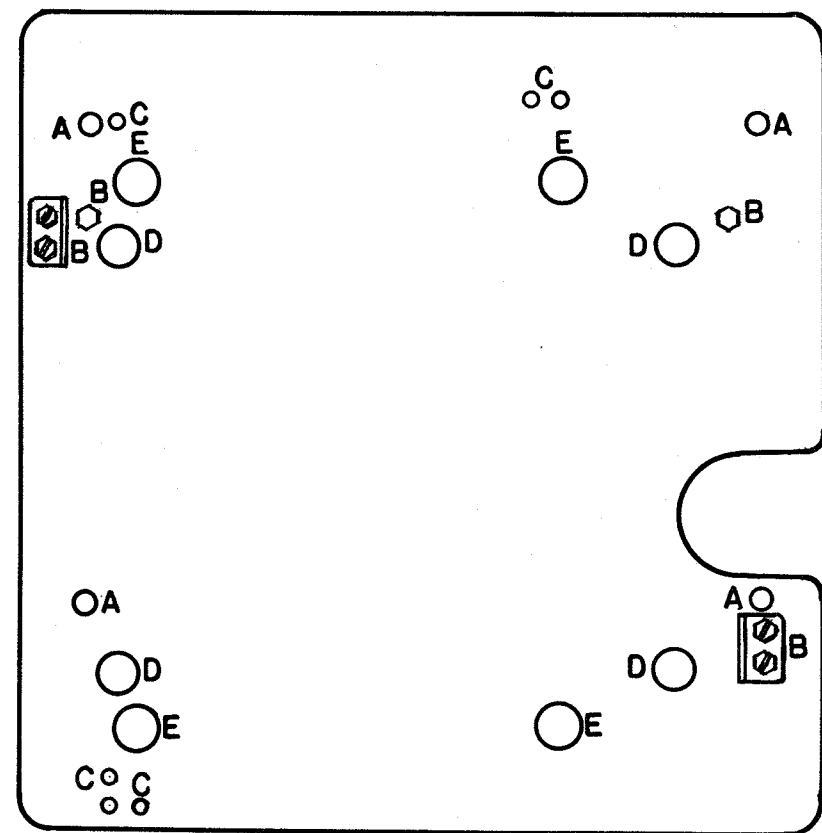
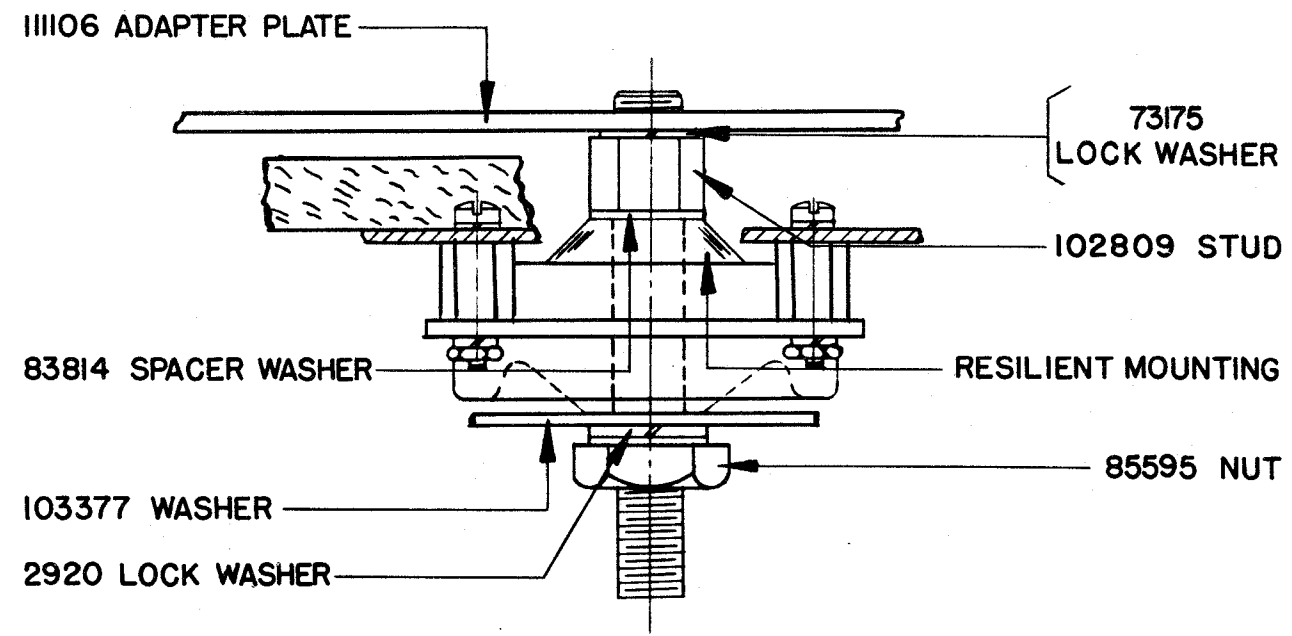
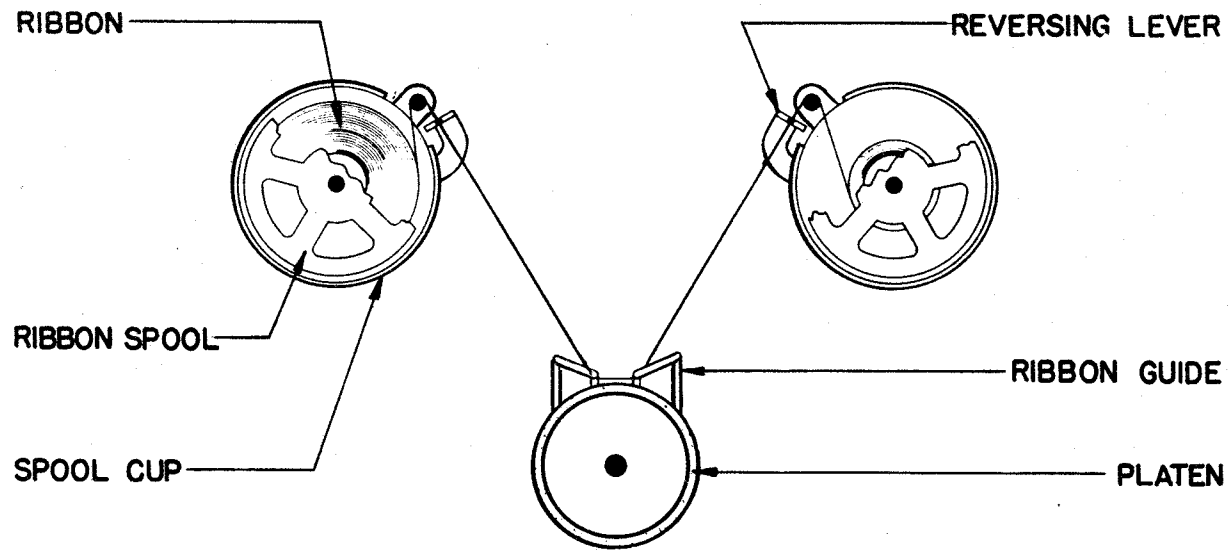
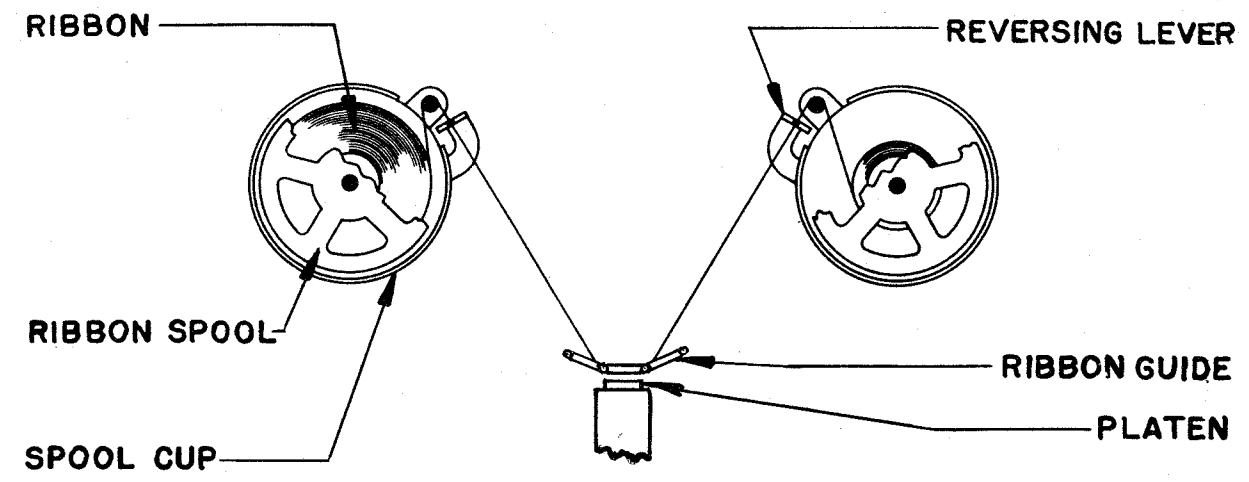


FIGURE 2



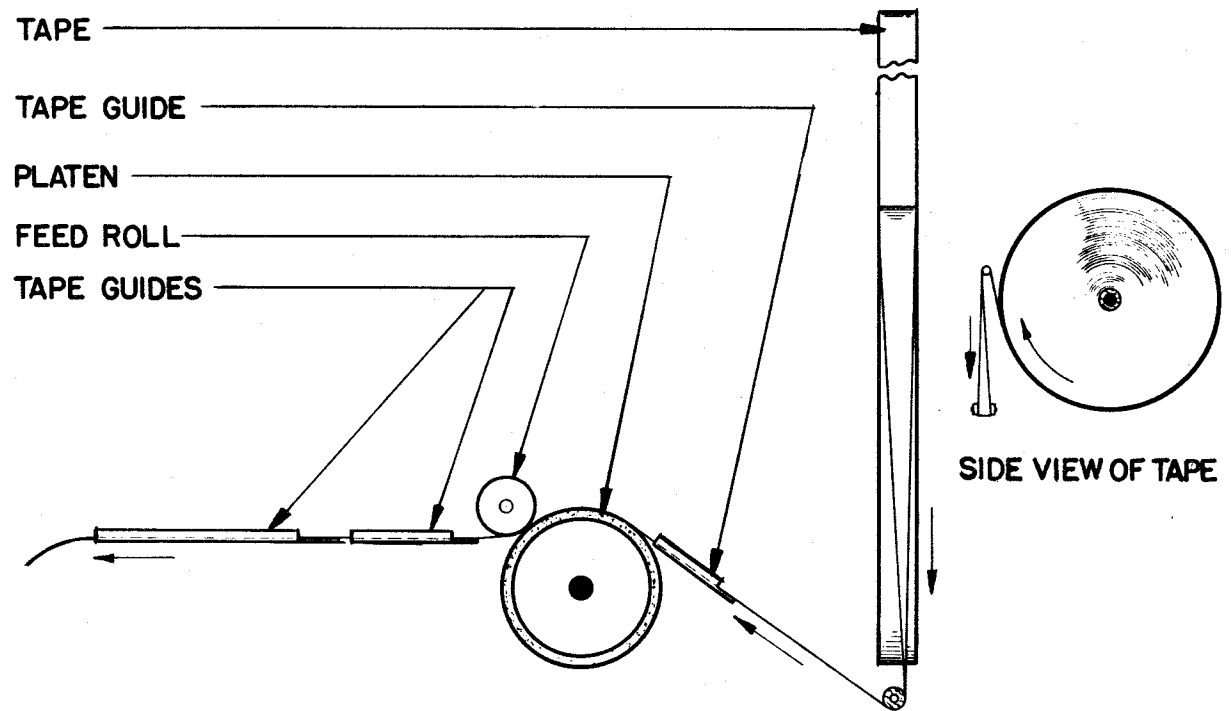
THREADING OF RIBBON ON MODEL 14 TAPE PRINTER

FIGURE 3



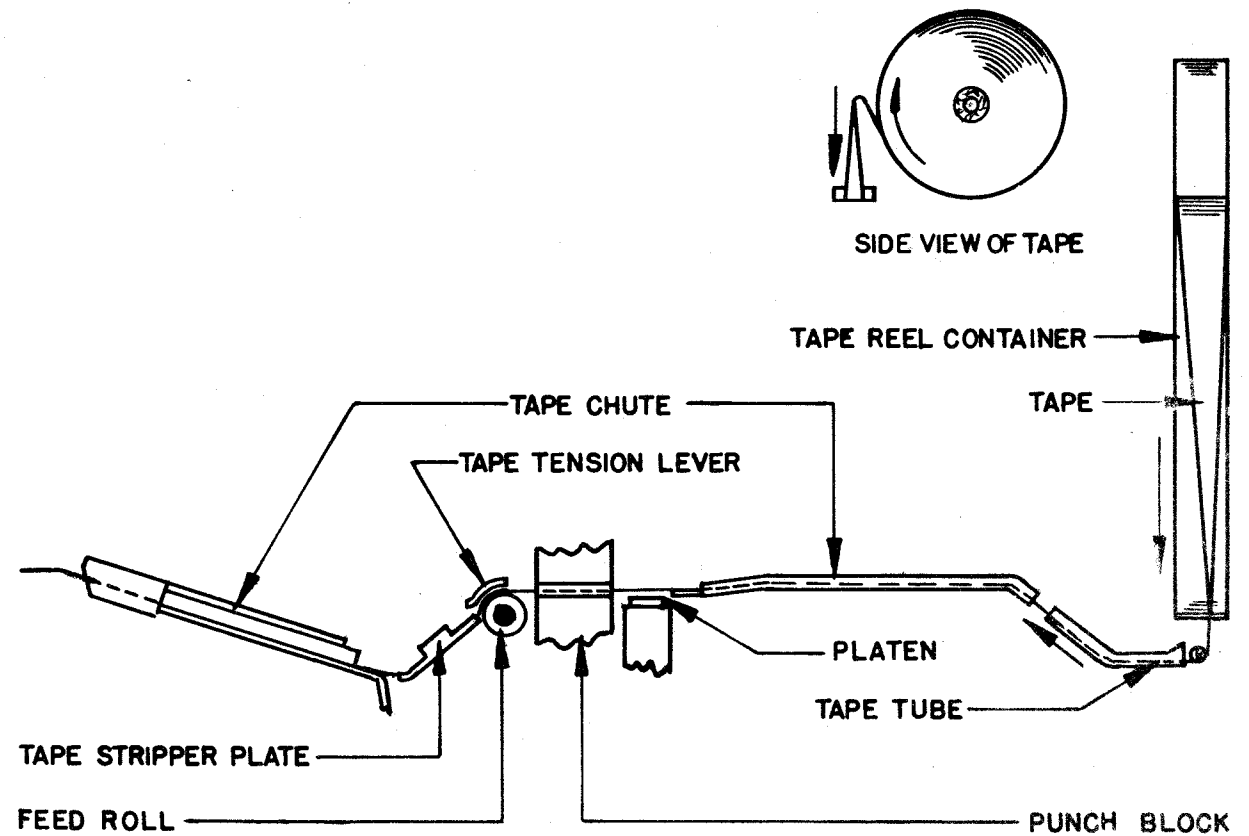
THREADING OF RIBBON ON MODEL 14 TYPING REPERFORATOR

FIGURE 5



THREADING OF TAPE ON MODEL 14 TAPE PRINTER

FIGURE 4



THREADING OF TAPE ON MODEL 14 TYPING REPERFORATOR

FIGURE 6