TELETYPE CORPORATION Skokie, Illinois, U.S.A.

# 28 TAPE PRINTER UNIT (STOCK TICKER)

# DISASSEMBLY AND REASSEMBLY

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## 1. GENERAL

1.01 This section is issued to provide disassembly and reassembly instructions for the tape printer unit (stock ticker) (Figure 1) and to present those instructions as a separate section. The disassembly outlined in this section will break the tape printer down into major assemblies and mechanisms. (See Figure 1.)

1.02 Refer to the appropriate tape printer parts section for exploded views illustrating the mechanisms to be disassembled, for location and visual identification of parts and detailed disassembly and reassembly procedures. Refer to the appropriate tape printer adjustment section for adjustments required during and after reassembly. Tools required for disassembly and reassembly are not furnished with the equipment but are described in a separate tools section.

1.03 If a part is mounted on shims, note the number of shims removed at each mounting point. The same shim pile-up should be replaced when the part is remounted.

1.04 Note carefully the procedure used in disassembly so reassembly may be by reversing the procedure outlined below.

1.05 Retaining rings are made of spring steel and have a tendency to release suddenly when being removed. Loss of these retainers can be minimized as follows:

- (a) Hold the retainer with one hand to prevent it from rotating.
- (b) Place the blade of a suitable screwdriver in one of the slots of the retainer. Rotate the screwdriver in a direction to increase the diameter of the retainer for its removal.

1.06 Avoid loss of springs in disassembly by holding one spring loop with one hand while carefully removing the opposite loop with a spring hook.

CAUTION: DO NOT STRETCH OR DISTORT SPRINGS IN REMOVING THEM.

1.07 References made to "left," "right," "up," "down," "front," or "rear" apply to the tape printer in its normal operating position, with the viewer facing the front plate, with the tape chute toward the viewer's left.

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Figure 1 - Tape Printer Unit (Stock Ticker)

#### 2. DISASSEMBLY

# TYPEBOX

2.01 Trip latch at left of typebox by pivoting clockwise. Withdraw the unlatched typebox by pulling forward and rotating counterclockwise around its right mounting screw.

# DOUBLE PRINT HAMMER

2.02 Disconnect TP196623 print hammer drive link at rear connection by removing TP3598 locknut, TP2191 lockwasher, TP90361 felt washer, TP196640 spacer and TP123699 screw. 2.03 Remove three TP85471 mounting screws and TP2669 lockwashers. Two of these screws retain TP196656 tape printer handle. One TP3438 spacer is used under the lockwasher on the third screw.

2.04 Lift the double print hammer assembly from the tape printer.

### TOP PLATE ASSEMBLY

2.05 Remove the double print hammer (Paragraphs 2.02 through 2.04). 2.06 Remove two TP173974 screws and TP2669 lockwashers. Remove TP196671 tape printer handle.

2.07 Remove TP119654 retaining ring from the function cam follower shaft (TP-196032). Remove TP22015 function cam follower arm spring, and slide the function cam follower shaft to the left until it clears the bearing on the casting at the rear of the top plate.

2.08 Remove TP151630 screw and TP2191 lockwasher attaching the top plate to he support bar bracket (TP196577). Remove two TP151606 screws and TP2669 lockwashers retaining the top plate on the left and right frames, and lift the top plate assembly from the tape printer.

CAUTION: THE BALL BEARINGS IN THE TOP PLATE ASSEMBLY HAVE BEEN AS-SEMBLED AND LOCKED IN PLACE ON THEIR RESPECTIVE LINKS AND ECCEN-TRICS AT THE FACTORY. SERIOUS DAM-AGE TO THE BEARINGS MAY RESULT FROM AN ATTEMPT TO REMOVE THEM.

- SELECTOR ASSEMBLY
- 2.09 Remove the selector cover plate (TP-158949) and range finder mechanism.
  - (a) Remove TP3598 nut and TP2191 lockwasher from the left end of the push lever guide.
  - (b) Remove the two TP151657 screws and TP2191 lockwashers and the TP8330 flat washer retaining the cover plate to its mounting post (TP150687) and to the selector lever guide (TP152401).
  - (c) Set the range finder knob at its highest setting for maximum clearance at the end of the selector rack, and slide the mechanism off the rear of the cam clutch assembly.
- 2.10 Remove the selector clutch and cam mechanisms.
  - (a) Remove the selector cover plate (Paragraph 2.09).
  - (b) Remove TP3598 nut, TP2191 lockwasher, and TP151693 screw attaching the clutch to the main shaft.

- (c) Place the stripper bail (TP158903) on its shoulder.
- (d) Hold the marking locklever (TP158902) up, and remove the clutch and cam assemblies.

2.11 Remove electrical leads. Remove four TP151630 screws and TP2191 lockwashers retaining the selector mechanism to the tape printer frame. The upper screw attaches the transfer lever bracket to the selector mounting plate. The rear screw, attaching the selector lever guide mounting post, is fastened from the right side of the tape printer frame.

2.12 Remove the selector mechanism and magnet assembly.

# RIBBON FEED ASSEMBLY

2.13 Remove the ribbon. Disconnect the TP-196662 ribbon feed drive link by removing TP119652 retaining ring and the TP115122 felt washer at the rear of the assembly.

2.14 Remove two TP151631 screws and TP-2191 lockwashers attaching the ribbon feed assembly to the front plate, and remove the ribbon feed assembly from the tape printer.

### CODEBAR ASSEMBLY

2.15 Remove the top plate assembly (Paragraphs 2.05 through 2.08).

2.16 Remove two TP110434 screws and TP110743 lockwashers and remove the codebar shiftbar retaining bracket (TP150301) from the left codebar bracket. Remove six TP152548 shift bars.

2.17 Remove four TP151657 screws and TP2191 lockwashers attaching codebar brackets (TP196115 and TP196114) to left and right frames. Lift the codebar assembly from the typing unit.

## TRANSFER LEVER ASSEMBLY

2.18 Remove the selector assembly (Paragraph 2.09 through 2.12).

2.19 Remove TP119652 retaining ring and TP150990 felt washer and disconnect the shift lever drive arm (TP196130) from the drive shaft (TP196026). 2.20 Remove two TP151630 and TP151722 screws and TP2191 lockwashers retaining the transfer mechanism to the bearing housing (TP196060) and the left frame. If the codebar assembly has been removed previously, remove the transfer lever assembly from the tape printer. If the codebar mechanism has not been removed, carefully slide the shift bars out of their slots in the shift link bracket (TP196129).

# MAIN SHAFT ASSEMBLY

2.21 Remove the selector assembly (Paragraphs 2.09 through 2.12). Remove TP22015, TP70388, TP74712 and TP74760 springs from the codebar clutch cam follower, function clutch trip lever cam follower, function clutch cam follower, and the tape feed cam follower.

2.22 Remove the TP3598 locknut, TP2191 lockwasher and TP156521 eccentric screws from the upper end of the typebox rail positioning link (TP196558). Remove two TP 150040 and TP151346 screws and TP2191 lockwashers from the typebox clutch and collar, and slide the loosened clutch to the left on the main shaft.

2.23 Remove four TP151630 screws and TP2191 lockwashers and remove TP 152573 and TP152537 left bearing retainer and right bearing clamp.

2.24 Move the main shaft assembly to the right and remove it from the left and right frames through slots in the rear.

## TYPEBOX RAIL POSITIONING SHAFT

2.25 Remove the top plate assembly (Paragraphs 2.05 through 2.08). Disconnect the upper end of TP196558 typebox rail positioning link by removing TP3598 locknut, TP2191 lockwasher and TP156521 eccentric screw.

2.26 Remove two TP150040 screws, TP2191 lockwashers, TP196058 clamps, and TP-196274 gears from either end of the typebox rail positioning shaft (TP196055).

2.27 Remove two TP151658 screws and TP-2191 lockwashers and remove TP196059, TP152589 and TP150401 clamps from the right bearing. Remove two TP151657 screws and TP2191 lockwashers and remove TP150891 bearing block from the left end of the shaft. Remove TP196055 typebox rail positioning shaft. TAPE CHUTE AND PLATEN ASSEMBLY

 Remove TP82787 tape feed detent lever spring.

2.29 Remove TP151630 screw, TP2191 lock washer, and TP7002 washer retaining tape chute to front plate. Remove two TP151631 screws, TP2191 lockwashers and TP7002 flat washers retaining the TP196676 platen assembly bracket to the left frame. Remove the platen assembly and tape chute.

# FRONT PLATE ASSEMBLY

2.30 Remove the ribbon feed assembly and the tape chute and platen assembly (Paragraphs 2.13 through 2.14 and 2.28 through 2.29). Remove TP119652 retaining ring and TP151222 felt washer at the front end of the tape and ribbon feed drive link (TP196693).

2.31 Remove four TP99278 screws, TP45815 lockwashers and TP34432 flat washers and remove the front plate assembly from the left and right frames.

### CLUTCH TRIP MECHANISM ASSEMBLY

2.32 Remove the selector assembly (Paragraphs 2.09 through 2.12). Remove TP-22015, TP74712, and TP74701 codebar clutch cam follower, function clutch cam follower, and codebar latchlever springs.

2.33 Remove TP150479 stud and TP151658 screw and TP2191 lockwasher retaining the clutch trip mechanism bracket (TP196572) to the left frame.

2.34 Remove two TP151657 screws and TP-2191 lockwashers to disassemble TP-196576 bracket from the rectangular tie bar (TP196578). Remove two TP151657 fillister head screws and TP2191 lockwashers to separate TP196572 bracket and the clutch trip mechanism assembly from the tie bar.

3. REASSEMBLY

3.01 To assemble the mechanisms and assemblies of the tape printer, reverse the steps given above. Observe the following precautions:

 Typebox rail positioning rack and pinion (Paragraph 2.26): align hole in rack with V notch in gear flange. (2) Top plate assembly (Paragraph 2.08): take up play to the rear of the tape printer when assembling top plate in order to make gear clearance maximum.

3.02 Completely readjust unit in accordance with the appropriate tape printer adjustment section. Parts requiring lubrication should be lubricated prior to or during reassembly. For instructions, see the appropriate tape printer lubrication section.

CAUTION: DO NOT WASH THE UNIT IN DEGREASER, AS THIS WILL DESTROY LU-BRICATION OF THE BEARINGS, AND TRACES OF DEGREASER REMAINING IN THE BEARINGS WILL MAKE RELUBRICA-TION INEFFECTIVE.

3.03 Before mounting the tape printer to its base, loosen four TP151630 screws on the two rear legs. Fasten the tape printer to base before tightening leg screws.