

TECHNICAL MANUAL
TYPING AND NONTYPING REPERFORATORS
TELETYPE MODEL 14

CHANGES
No. 1 }

DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., 24 June 1949

TM 11-2223, 15 September 1947, is changed as follows:

1. General

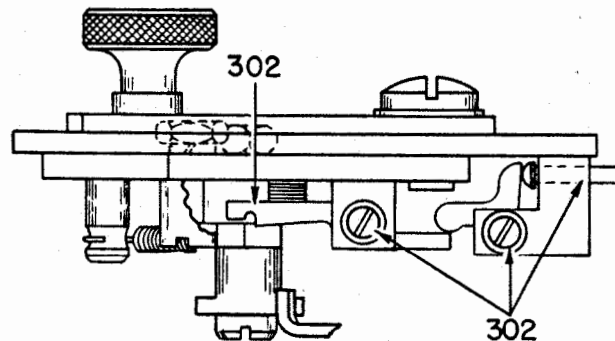
* * * * *

e. Descriptive information and * * * are commonly used.

Note. (Added.) Following publication of this manual, Army-Navy nomenclature of Reperforator TT-15/FG was assigned to the model 14 (RPE26) nontyping reperforator. Book II, this manual, covers this reperforator. Reperforator units bearing the code designation FPR23GB-

226 have been assigned nomenclature of Reperforator TT-16/FG. This is a receiving-only type reperforator with a high base and governed series motor. It receives standard communication symbols. Nomenclature of Reperforator TT-17/FG has been given units bearing the code designation FPR23GB222. This is also a receiving-only type reperforator with a high base and a governed series motor, and receives weather symbols. Bases for Reperforators TT-16/FG and TT-17/FG are alike and bear the code designation FPRB4. Book I, this manual, describes Reperforators TT-16/FG and TT-17/FG.

Figure 41. Lubrication points, selector and platen mechanism. (Figure 41.1 shows lubrication points on side of range finder furnished on Order Nos. 9838-Phila-48 and 14700-Phila-49.)



TM2223-C1-1

Figure 41.1 (Added.) Lubrication points, side view of range finder (Order Nos. 9838-Phila-48 and 14700-Phila-49).

Figure 54. Selector unit (pulling magnet). (Figure 54.1 shows the selector unit (pulling magnet) furnished on Order Nos. 9838-Phila-48 and 14700-Phila-49.)

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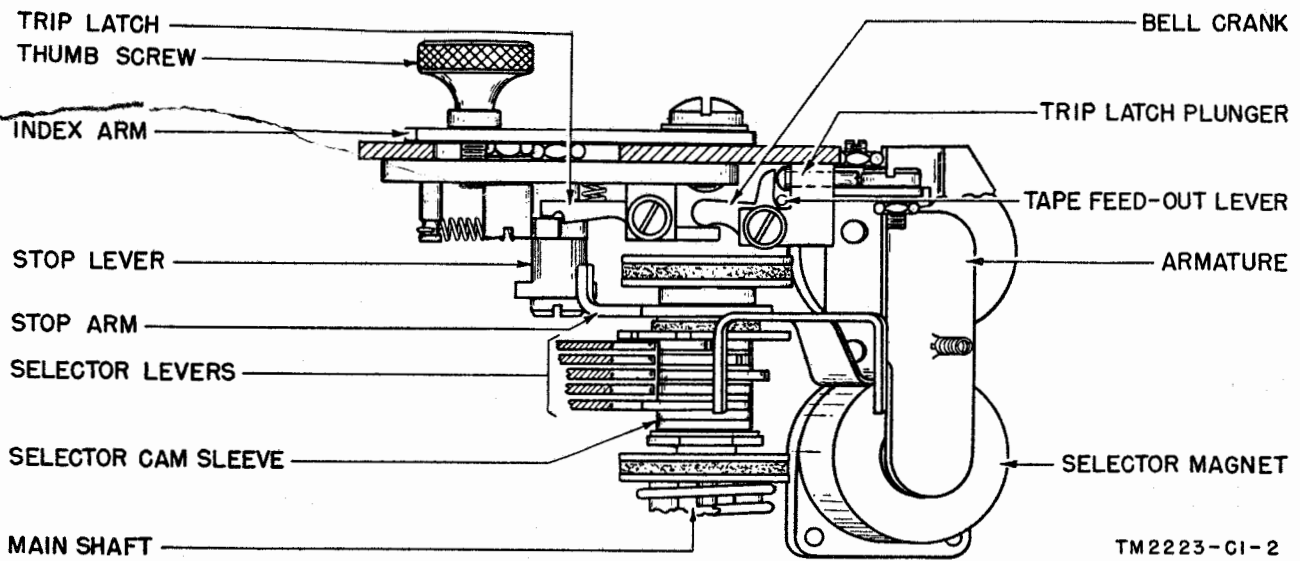


Figure 54.1 (Added.) Selector unit (pulling magnet) (Order Nos. 9838-Phila-48 and 14700-Phila-49).

Figure 57. Selector unit (holding magnet). (Figure 57.1 shows the selector unit (holding magnet) furnished on Order Nos. 9838-Phila-48 and 14700-Phila-49.)

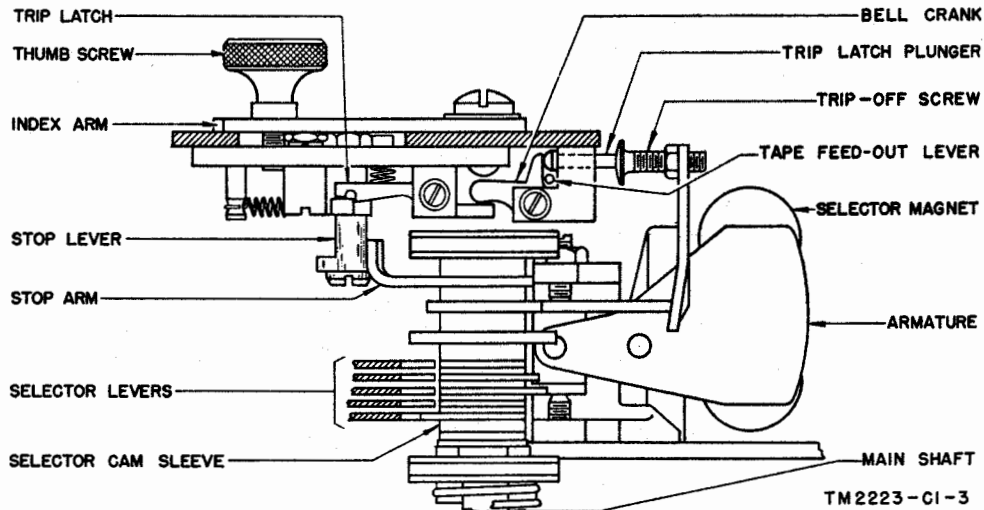


Figure 57.1 (Added.) Selector unit (holding magnet) (Order Nos. 9838-Phila-48 and 14700-Phila-49).

176. Gear Guard Adjustment (fig. 111)

* * * * *

b. REQUIREMENTS. There should be * * * the locking pawl. Equipments procured on Order

Nos. 9838-Phila-48 and 14700-Phila-49 should have some clearance, not more than 0.008 inch, under the same condition.

* * * * *

Figure 111. Gear-guard adjustment. (For equipment on Order Nos. 9838-Phila-48 and 14700-Phila-49 delete the designation .002' to .004' and substitute the following therefor: Some Clearance, Not More Than 0.008'')

181. Locking-Pawl Spring Tension Adjustment (fig. 113)

* * * * *

b. REQUIREMENTS. With the locking * * *

the pawl moving. On equipments procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 it should require 1/2 to 1 1/2 ounces to start the pawl moving.

* * * * *

Figure 113. Locking-pawl spring tension requirements. (Equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 require a spring tension of 1/2 to 1 1/2 ounces to start the pawl moving.)

193. Clutch Throw-Out Lever Eccentric Adjustment (fig. 109)

b. REQUIREMENT. The intermediate pawl of the cam. Requirement for equipment procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 follows: With the transmitter shaft in the stop position and the clutch fully disengaged, hold the clutch throw-out lever against the driven clutch member. Under this condition the intermediate pawl should be held firmly between the clutch throw-out lever and the intermediate pawl eccentric.

Note. (Added.) On some units the driven clutch member has a tendency to settle back when the clutch throw-out lever is held against it, slightly altering the stop position. On units where this condition prevails, the clutch throw-out lever eccentric adjustment should be made and checked after this settling has occurred.

194. Trip-Off Pawl Eccentric Adjustment (fig. 109)

c. ADJUSTMENT. Adjust by means of the keyboard.

Note. (Added.) If necessary, bend the rear extension of the trip-off pawl stop plate so that with the trip-off pawl in its operated position, there is a 0.002-inch to 0.040-inch clearance between the formed end of the stop plate and the lower edge of the trip-off pawl.

213.1. (Added.) Space-repeat Rod Bracket Adjustment

a. PREPARATION. Remove the reperforator unit from the keyboard base.

b. REQUIREMENTS. The end of the space-repeat rod should engage the intermediate pawl at least one-half the thickness of the pawl when the space bar is fully depressed.

c. ADJUSTMENT. Adjust the space-repeat rod bracket so that the face of the section with the elongated hole is parallel to the rear edge of the rear transmitter bracket in order to insure free movement of the space-repeat rod.

215.1. (Added.) Adjustment for Alinement and Squareness of Governor Contacts (fig. 129)

Note. All governor contacts can be adjusted for alinement of edges; only those governor shells which provide

elongated mounting holes for the fixed contact bracket permit adjustment of the contact for height by positioning the contact bracket.

a. PREPARATION. Remove the governor-adjusting bracket, brush spring plate, target, and governor cover.

b. REQUIREMENTS. The governor contacts should be in line and meet squarely so that maximum contact surface is provided. Check with the retractile spring tension adjusted so that the contacts just make, or to the limit of the adjusting screw.

c. ADJUSTMENTS.

- (1) Line up the edges of the contacts by means of the floating contact hinge-mounting screw.
- (2) Adjust the contacts for squareness from right to left by positioning the height of the fixed contact bracket, using the elongated mounting holes in the governor shell.
- (3) To adjust for squareness from front to back, twist the floating contact hinge, applying pressure to the arm near the contact.

Note. Check by use of a 0.002-inch gage (smaller if available). Check with gage between edges of the contacts to that the gage enters (or does not enter) equally on all sides.

218. Governor-Brush Spring-Plate Bracket Adjustment

b. REQUIREMENTS.

- (1) A line through the centers of the outer disk should also pass through the centers of both contact brushes. On equipments procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 a line established by the center of the outer disk and the center of one of the brushes should pass through some portion of the outer brush (fig. 131).

223. Selector Separator Plate Adjustment (fig. 134)

c. ADJUSTMENT. Bend the leaf the

straight portions. On equipments procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 bend the leaf springs at the narrow portions so that

the ends of the springs are 0.050 inch to 0.060 inch below the under surface of the straight portions. Be very careful * * * they formerly occupied.

Figure 134. Selector separator plate requirements. (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 delete the designation .045" to .055" and substitute the following therefor: 0.050" to 0.060".)

232. Selector-Armature Bracket Adjustment

* * * * *

b. REQUIREMENTS. The position of * * * the armature extension. Place a 0.040-inch gage against the spacing stop post and move the armature slowly toward the marking position. The blade of * * * the stop posts.

233. Armature Stop Adjustment (fig. 140)

* * * * *

b. REQUIREMENTS. The No. 1 sword * * * of its cam. With equipments procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 the No. 1 sword arms (right and left) should clear the associated arms of the armature extensions by 0.035 inch to 0.037 inch when the front edge of the op-

posite sword arm is against its armature extension arm and the No. 1 selector lever is on the high part of its cam.

Note. (Added.) The upper limit may be increased to 0.042 inch only if necessary to meet the requirements for clearance given in paragraph 240b.

236. Stop-Lever Eccentric Stud Adjustment (Pulling Magnet Selector) (fig. 142)

* * * * *

b. REQUIREMENTS. The stop lever * * * to 0.006-inch. With equipments procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 the overtravel should be not more than 0.006 inch.

Figure 140. Armature stop requirements. (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 delete the designation .040" to .042" and substitute the following therefor: 0.035" to 0.037".)

Figure 142. Stop-lever eccentric stud requirements. Figure 142.1 shows the requirements for equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49.)

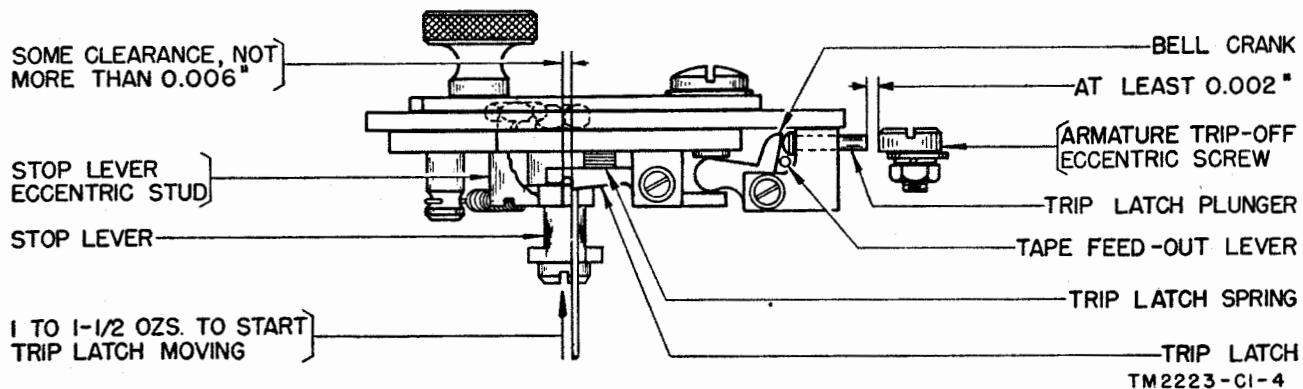


Figure 142.1 (Added.) Stop-lever eccentric stud requirements (Order Nos. 9838-Phila-48 and 14700-Phila-49).

Figure 144. Armature trip-off eccentric-screw requirements. (Figure 144.1 shows requirements for equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49.)

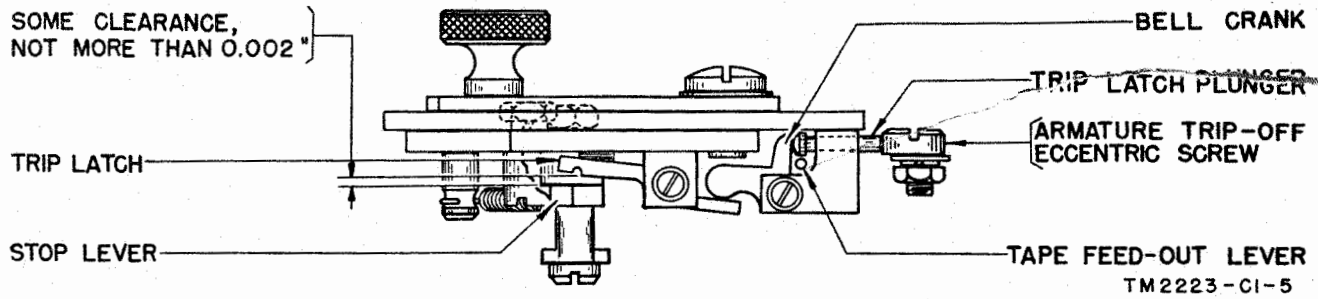


Figure 144.1. (Added.) Armature trip-off eccentric-screw requirements (Order Nos. 9838-Phila-48 and 14700-Phila-49).

252. Selector-Magnet Bracket Position Adjustment (fig. 150)

* * * * *

b. REQUIREMENTS. Rotate the selector-cam
* * * the armature cam.

Note. (Added.) When checking the above requirements, the armature extension should be held approximately 0.045 inch from the bottom of the notch in its cam.

254. Armature Spring Tension Adjustment (fig. 146)

* * * * *

b. REQUIREMENTS. Rotate the main-shaft
* * * wired in series. **With equipments pro-**

cured on Order Nos. 9838-Phila-48 and 14700-Phila-49, use a 32-ounce scale hooked in the spring eye and pull the spring to its position length. The following tension should apply:

- (1) (Added.) If a distortion test set is available, the spring tension should be set at the optimum value within the limits of 13 to 24 ounces.
- (2) (Added.) If no distortion test set is available, the spring tension should be 17 to 19 ounces, except when coils are connected in parallel without a 1,000-ohm shunt. Under this latter condition the tension should be 13 to 15 ounces.

Figure 153. Stop-lever eccentric stud requirements. (Figure 153.1 shows requirements on Order Nos. 9838-Phila-48 and 14700-Phila-49.)

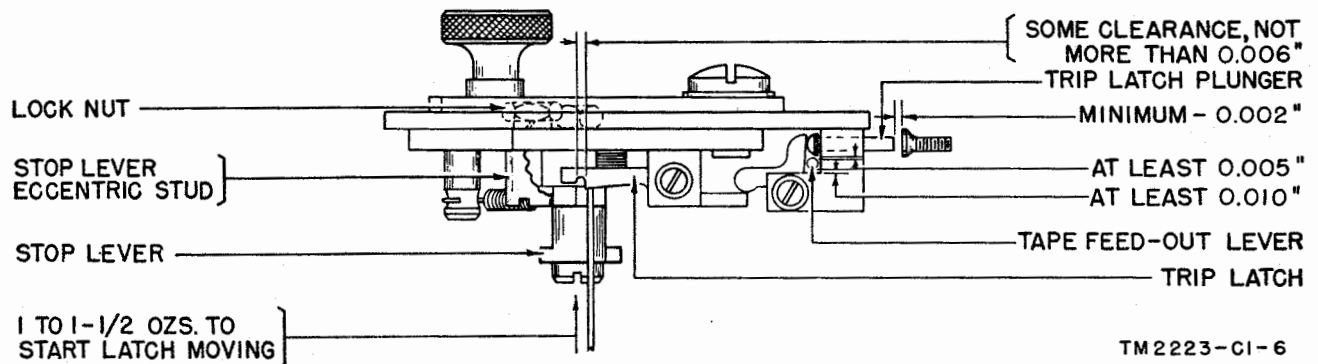


Figure 153.1 (Added.) Stop lever eccentric stud requirements (Order Nos. 9838-Phila-48 and 14700-Phila-49).

Figure 154. Trip-off screw requirements. (Figure 154.1 shows requirements for equipment on Order Nos. 9838-Phila-48 and 14700-Phila-49.)

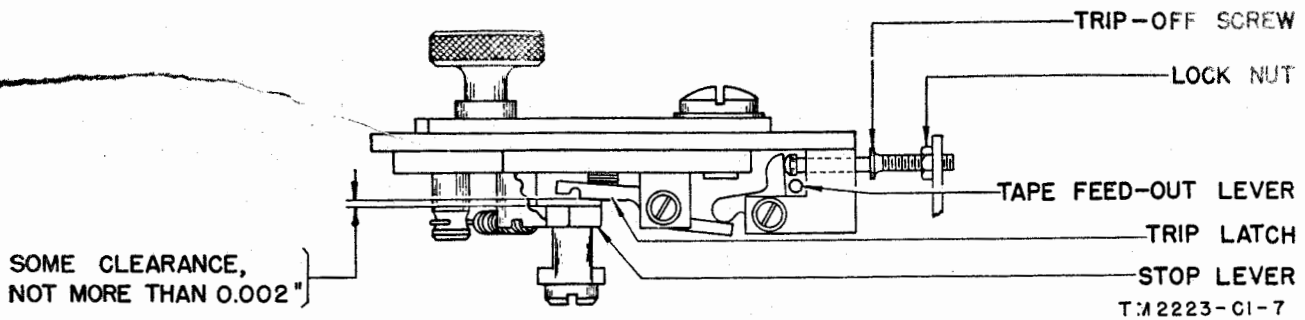


Figure 154.1 (Added.) Trip-off screw requirements (Order No. 9838-Phila-48).

256. Selector-Arm Spring Tension Adjustment
(fig. 152)

* * * * *

b. REQUIREMENTS. Unhook the selector-arm * * * the selector-arm moving. Reform the outer loop of the selector-arm spring if necessary, to meet this requirement.

Caution (added): Be careful not to nick, crimp, or otherwise deform the spring when reforming the loops.

* * * * *

Figure 160. Ribbon-spool shaft gears requirements. (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 delete the designation 3½ to 5 Ozs To Start Shaft Moving and substitute the following therefor: 2½ to 5 Ozs To Start Shaft Moving.)

269. Ribbon-Spool Shaft Compression-Spring Adjustment
(fig. 160)

* * * * *

b. REQUIREMENTS. It should require * * * ribbon-spool shaft moving. With equipment procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 it should require from 2½ to 5 ounces to start the ribbon-spool shaft moving.

* * * * *

271. Left Ribbon-Reverse Arm Shaft Adjustment
(fig. 161)

* * * * *

b. REQUIREMENTS.

(1) The front end * * * clearance a minimum. With equipments procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 the front end of the left ribbon-reverse arm shaft should clear the left ribbon-spool cup by 0.005 inch to 0.025 inch when the ribbon-reverse arm is held

257. Stop-Lever Eccentric Stud Adjustment
(Holding Magnet Selector) (fig 153)

* * * * *

b. REQUIREMENTS. The stop lever * * * 0.004-inch to 0.006-inch. With equipment procured on Order No. 9838-Phila-48 the stop lever on the range-finder assembly should overtravel the latching face of the trip latch by not more than 0.006 inch.

* * * * *

against the bracket to make the clearance a minimum.

* * * * *

273. Ribbon-Reverse Pawl Link Adjustment
(fig. 162)

* * * * *

b. REQUIREMENTS. There should be * * * their shoulder screws. With equipments procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 the ribbon-reverse bail should clear both left and right ribbon-reverse pawls by 0.015 inch to 0.040 inch when the ribbon-reverse bail is opposite the reverse pawls and the ribbon-reverse arms are against the ribbon-spool cups. When checking the 0.015-inch clearance between either ribbon-reverse pawl and ribbon-reverse bail, the play in the ribbon-reverse bail should be taken up in a direction to make this clearance a minimum. When checking for the 0.040-inch clearance, the play in the ribbon-reverse bail should be taken up in a direction to make the clearance a maximum.

Figure 161. Ribbon-spool shafts slot requirements. (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 delete the designation .010" to .020" and substitute the following therefor: 0.005" to 0.025".)

Figure 162. Ribbon-reverse pawl link requirements. (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 delete the designation .015" to .025" and substitute the following therefor: 0.015" to 0.040".)

291. Code-Bar Bell Cranks Adjustment (figs. 175, 176-A, and 177-A)

* * * * *

b. REQUIREMENTS.

- (1) The code bars * * * crank separator plates.
- (2) The code-bar bell * * * associated bell cranks. With equipments procured on Order Nos. 9839-Phila-48 and 14700-Phila-49 the code-bar bell cranks (fig. 176) should meet the following requirements: With the code-bars positioned for BLANK selection and the locking lever resting against the code bars, there should be 0.010-inch to 0.030-inch clearance between the right ends of the code

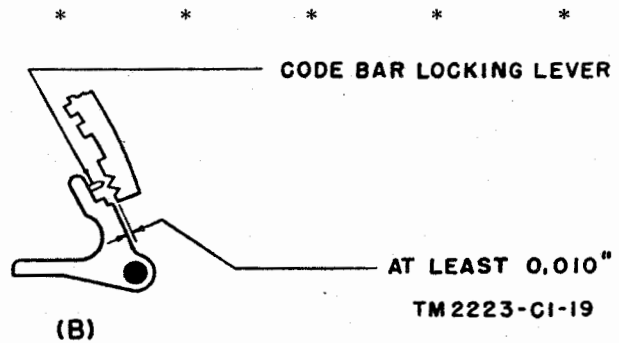
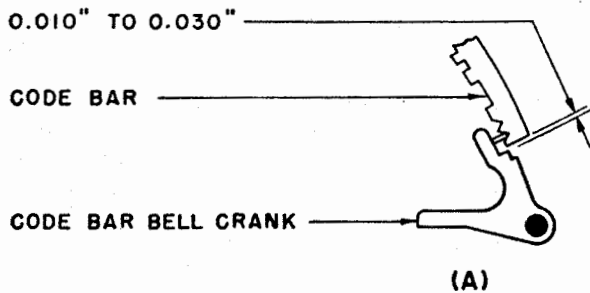


Figure 176. (Superseded.) Code-bar bell crank requirements.

Figure 177. Code-bar locking-lever requirements. (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 delete the designation Approx 1'32".)

Figure 178. Tape-tension lever spring tension requirements. (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 delete the designation 5 to 5½ Ozs and substitute the following therefor: 14 to 16 Ozs.)

298. Feed-Pawl Eccentric Final Adjustment (fig. 175)

* * * * *

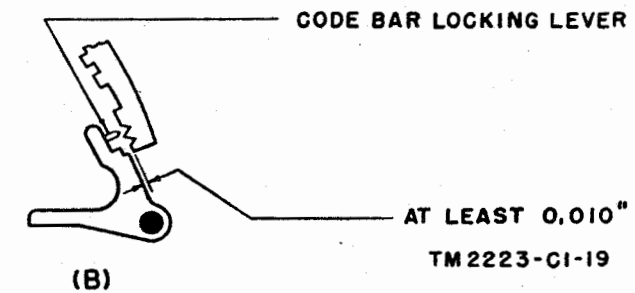
b. REQUIREMENTS. When the motor * * * each downward stroke. With equipments procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 the requirements are as follows: When the motor is rotated manually the feed-pawl should just engage a tooth on the feed roll, without overtravel, until the feed punch selector projection is within 0.010 inch to 0.020 inch of the feed punch.

c. ADJUSTMENT. Check by holding * * * meet this requirement. With equipments procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 make the following adjustment: Loosen the feed-pawl eccentric-bushing mounting screw

bars and the adjacent edges of the associated code-bar bell cranks.

- (3) The code-bar bell * * * code-bar bell cranks. With equipments procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 the code-bar bell cranks (fig. 177) should meet the following requirements: With the code bars positioned for BLANK selection, rotate the main shaft until the right ends of the code bars and the adjacent parallel edges of the associated code-bar bell cranks are at the point of closest approach. Under this condition the clearance at this point should be 0.010 inch to 0.030 inch.

* * * * *



and position the bushing. Tighten the bushing mounting screw.

300. Tape-Tension Lever Spring Tension Adjustment (fig. 178)

* * * * *

b. REQUIREMENTS. Hook an 8-ounce * * * the feed roll. With equipments procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 the required pull will be 14 to 16 ounces. This spring tension applies only to units having the new 110974 spring with 15 turns as compared to 18 turns on the springs formerly used.

305. Shift Rocker Adjustment

* * * * *

b. REQUIREMENTS. With the platen * * *

more than 0.008 inch. Requirements for equipment procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 are as follows: With the platen assembly in the forward (FIGURES) position, select the LETTERS pull bar and rotate the main shaft until the main-bail roller is on the low part of its cam. Lift upward on the main bail directly below the ribbon-reverse-bail mounting screws to make sure that the bail

has reached its extreme upward travel. Under these conditions, the vertical arm of the shift bell crank should overtravel the rear shoulder of the shift lever by not more than 0.015 inch.

Note. (Added.) When checking this adjustment it may be necessary to swing the motor unit out of the way to provide access to the point where lifting force is to be applied.

* * * * *

Figure 180. Shift bell-crank. (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 delete the designation Not Over .008" and substitute the following therefor: Not More Than 0.015".)

326. Worm-Follower Contact-Springs Adjustment (fig. 189-A)

* * * * *

b. REQUIREMENTS.

- (1) With the push * * * from its stiffener.
- (2) There should be a gap of 0.015 inch to 0.025 inch between the contact points.

* * * * *

330. Tape-Feed-Out Counter-Magnet Armature Contact Adjustment (fig. 192)

* * * * *

b. REQUIREMENTS.

- (1) With an 8-ounce * * * from its stiffener.
- (5) With the magnet * * * No. 4 contact springs. With equipments procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 there should be a gap of 0.010 to 0.015 inch between the contact points of No. 3 and No. 4 contact springs.

* * * * *

Figure 192. Tape feed-out counter-magnet armature contact requirements. (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 delete the designation .010" to .020" in the (A) section of illustration and substitute the following therefor: 0.010" to 0.015".)

337. Pull-Bar Lock-Out Lever Adjustment (figs. 196 and 197)

* * * * *

b. REQUIREMENTS. With the platen * * * to 0.020 inch. Requirements for equipments procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 are as follows:

- (1) (Added.) With the platen in the FIGURES position, the BLANK combination selected, and the main shaft rotated until the main bail is in its uppermost position, there should be 0.004-inch to 0.040-inch clearance between the S or J pull bar (according to type) and the code bars.
- (2) (Added.) There should be 0.004-inch to 0.040-inch clearance between the

BELL pull bar and the code bars when the foregoing selection is applied with the platen in the LETTERS position.

- (3) (Added.) With the platen in the FIGURES position, the BELL combination selected, and the main shaft rotated until the main bail has moved to approximately 0.010 inch below the bell pull-bar notch, there should be at least 0.010-inch clearance between the BELL pull bar and the lock-out-lever roller that is in contact with the S or J pull bar. When measuring this clearance, the play of the platen shaft, the shift rocker, and the lock-out lever should be taken up in the direction that minimizes the clearance.

* * * * *

Figure 196. Signal bell pull-bar lock-out lever requirements. (FIGURES position). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 change the designation .010" to .040" in section (B) to read: At least 0.010". Change the designation .004" to .020" in section (C) to read: 0.004" to 0.040".)

Figure 197. Signal bell pull-bar lock-out lever (LETTERS position) requirements. (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 change the designation .004" to .020" in section (C) to read: 0.004" to 0.040".)

351. Feed-Pawl Spring Tension Adjustment (Backspace Mechanism) (fig. 205)

* * * * *

b. REQUIREMENTS. With the main-bail * * * the feed roll. With equipment procured on Order Nos. 9838-Phila-48 and 14700-Phila-49 the requirements are as follows: With the main-bail cam in the stop position, hook a 32-ounce scale to

the feed pawl just above the curved bearing portion shown in figure 205 and pull horizontally toward the left. It should require 7 to 10 ounces to start the feed pawl moving away from the feed roll. The center of the spring hole is now 0.559 inch from the center of the pivoting point of the feed pawl. On equipment previously furnished, this distance was 0.233 inch.

Figure 205. Feed-pawl spring tension requirements. (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 delete the designation 2 to 4 ozs and substitute the following therefor: 7 to 10 ozs.)

352. Contact-Springs Adjustments (Main-Shaft Clutch Throw-Out Lever) (fig. 206)

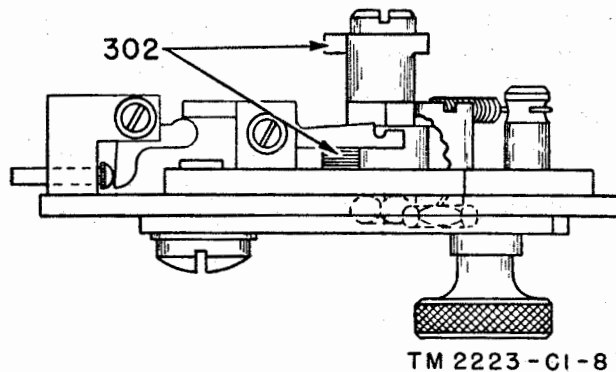
* * * * *

b. REQUIREMENTS.

(1) When an 8-ounce * * * from their stiffeners.

(2) There should be a gap of 0.015-inch to 0.020-inch between each pair of contact points.

Figure 217. Treatment of nontyping reperforator. (Figure 217.1 illustrates the top view of range finder furnished with equipment on Order No. 9799-Phila-48.)



TM 2223-CI-8
Figure 217.1 (Added.) Top view of range finder (Order No. 9799-Phila-48).

Figure 220. Cross-section of selector mechanism. (Figure 220.1 shows cross-section of selector mechanism on Order No. 9799-Phila-48.)

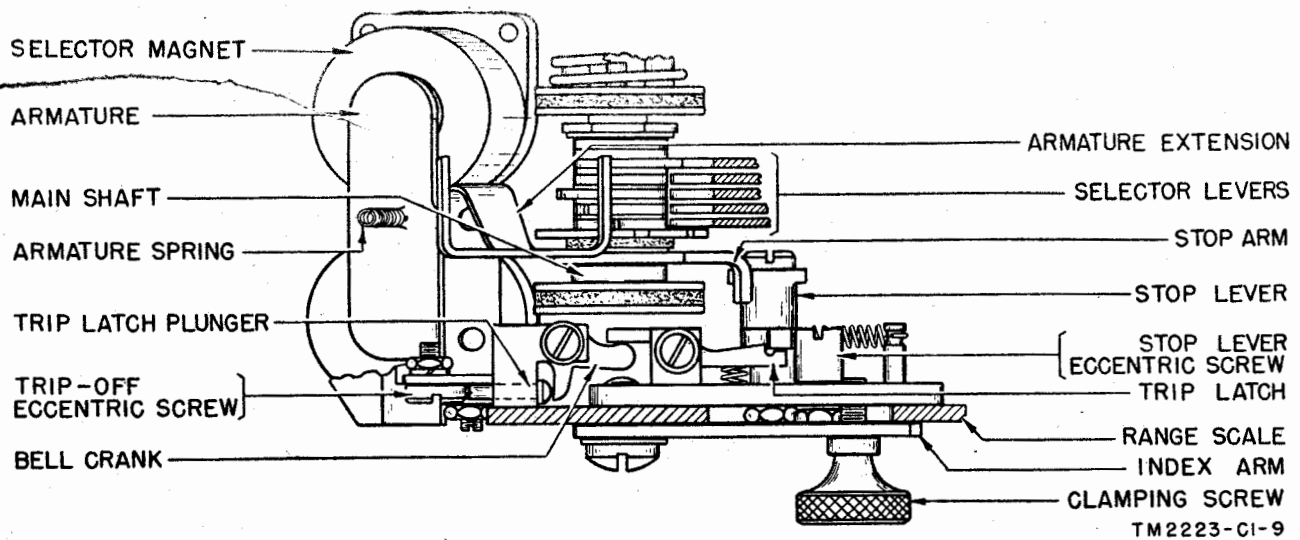


Figure 220.1 (Added.) Cross-section of selector mechanism (Order No. 9799-Phila-48).

Figure 235. Selector separator-plate requirements. (For equipments procured on Order No. 9799-Phila-48 delete the designation 0.045" to 0.055" and substitute the following therefor: 0.050" to 0.060".)

444. Selector Separator-Plate Adjustment (fig. 235)

* * * * *

c. ADJUSTMENT. Remove the separator * * * the straight portions. With equipments procured on Order No. 9799-Phila-48 the adjustment should be as follows: Remove the separator plates, bend the leaf springs at the narrow portions so that the ends will be from 0.050 inch to 0.060 inch below the under surface of the straight portions.

450. Armature Stop Adjustment (figs. 239 and 240)

* * * * *

b. REQUIREMENTS. The No. 5 sword * * * of its cam. With equipment procured on Order

No. 9799-Phila-48 the requirements for clearance are from 0.035 inch to 0.037 inch. The upper limit may be increased up to 0.042 inch only if necessary to meet the requirements for clearance given in paragraph 456b.

453. Stop-Lever Eccentric Screw Adjustment (fig. 241)

* * * * *

b. REQUIREMENTS. The stop lever * * * to 0.006 inch. With equipments procured on Order No. 9799-Phila-48 the stop lever on the range-finder assembly should overtravel the latching surface of the trip latch by not more than 0.006 inch.

Figure 240. Armature stop requirements. (For equipments on Order No. 9799-Phila-48 delete the designation 0.040" to 0.042" and substitute the following therefor: 0.035" to 0.037".)

Figure 241. Stop-lever eccentric screw requirements. (Figure 241.1 shows the stop-lever screw requirements on Order No. 9799-Phila-48.)

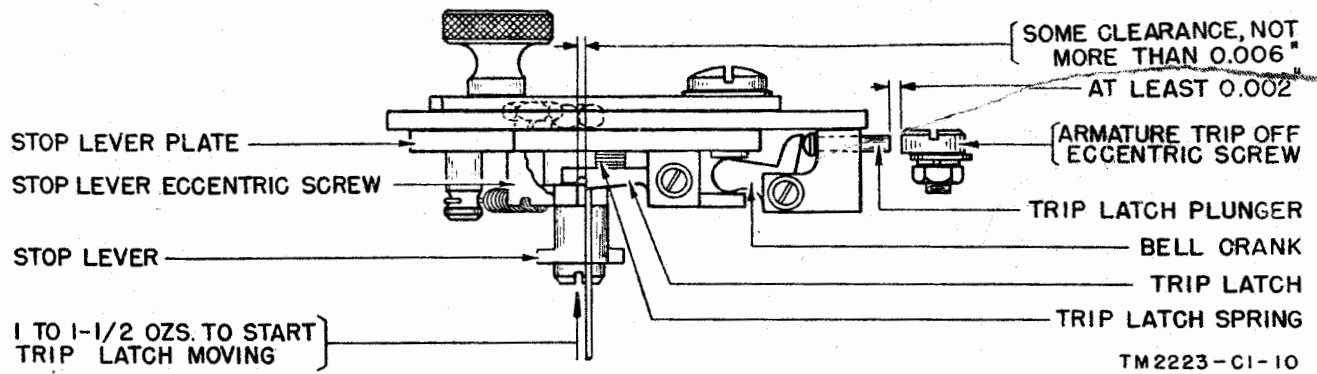


Figure 241.1 (Added.) Stop-lever eccentric screw requirements (Order No. 9799-Phila-48).

Figure 243. Armature trip-off eccentric-screw requirements (Figure 243.1 shows the armature trip-off eccentric-screw requirements on Order No. 9799-Phila-48).

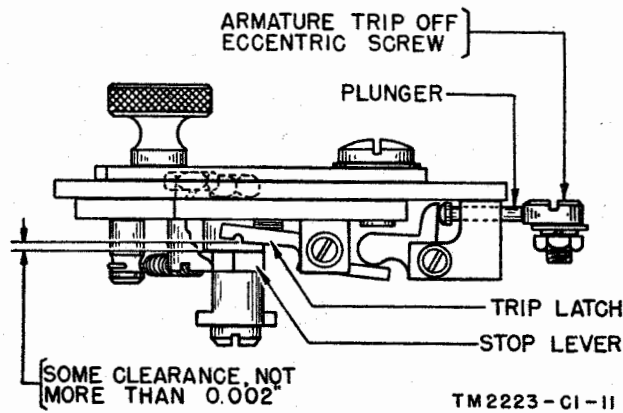


Figure 243.1 (Added.) Armature trip-off eccentric-screw requirements (Order No. 9799-Phila-4).

Figure 254. Space-out lever requirements (Figure 254.1 shows space-out lever requirements on Order No. 9799-Phila-48).

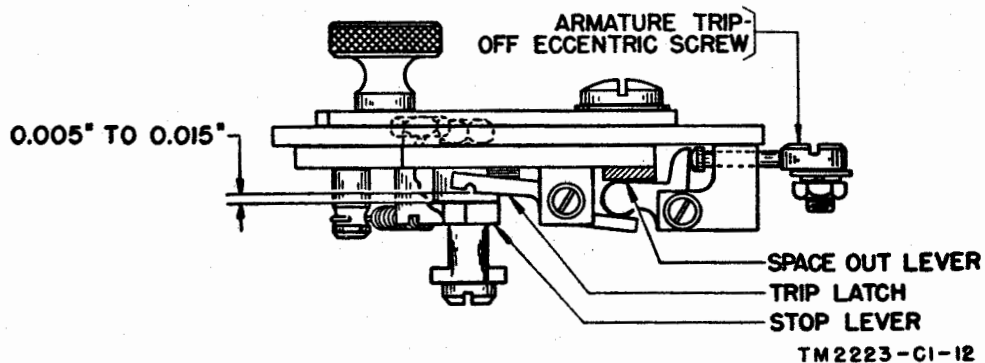


Figure 254.1 (Added.) Space-out lever requirements (Order No. 9799-Phila-48).

485.1. (Added.) Adjustment for Alinement and Squareness of Governor Contacts

a. PREPARATION. Remove the governor-adjusting bracket, brush spring plate, target, and governor cover.

Note. All governor contacts can be adjusted for alinement of edges; only those governor shells which provide elongated mounting holes for the fixed contact bracket permit adjustment of the contact for height by positioning the contact bracket.

b. REQUIREMENTS. The governor contacts should be in line and should meet squarely so that maximum contact surface is provided. Check this action with the retractile spring tension adjusted so that the contacts just make, or to the limit of the adjusting screw.

c. ADJUSTMENT.

- (1) Line up the edges of the contacts by means of the floating contact hinge mounting screw.
- (2) Adjust the contact for squareness from right to left, by positioning the height of

the fixed contact bracket, using the elongated mounting holes in the governor shell.

- (3) To adjust for squareness, from front to back, twist the floating contact hinge by applying pressure to the arm near the contact.

Note. Check by use of 0.002-inch gage (smaller if available). Check with the gage between the edges of the contacts to see that the gage enters (or does not enter) equally on all sides.

486. Speed-Adjusting Wheel Friction-Washer Spring Pressure Adjustment (fig. 255)

* * * * *

b. REQUIREMENTS. It should require * * * the wheel moving. With equipments procured on Order No. 9799-Phila-48 it should require 16 to 24 ounces to start the adjusting wheel moving.

* * * * *

Figure 255. Speed-adjusting wheel requirements. (For equipments on Order No. 9799-Phila-48 delete the designation 8 to 16 Ozs To Start The Adjusting Wheel Moving and substitute the following therefor: 16 to 24 Ozs To Start The Adjusting Wheel Moving.)

Figure 261. Base-plate parts (FPR5, FPR17, FPR21, and FPR23). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 make the following changes on the right-hand side of the illustration: Delete the designation © 8896 and substitute © 9874 therefor. Delete the designation © 95476 Platen (Assem) (With 103538 Insert) and substitute 111603 Platen Plastic and 111602 Platen Insert Metal therefor.)

Figure 262. Punch block and punch-block bracket parts (FPR5, FPR17, FPR21, and FPR23). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 make the following changes: In the top illustration change the designation 84023 to read: 110974. Change the designation ©122-577 Feed Roll to read: ©110682. Under the designation ©81598 Bushing add: Not Required. In the center illustration change the designation 35-88 to read: 2421. Change the designation 85355 Tape Plate to read: 85355 Tape Plate For FPR5 and FPR21, or 98702 Tape Plate For FPR23. Delete the bottom illustration and substitute figure 262.1 which shows the 11024 Punch Block Assembly.)

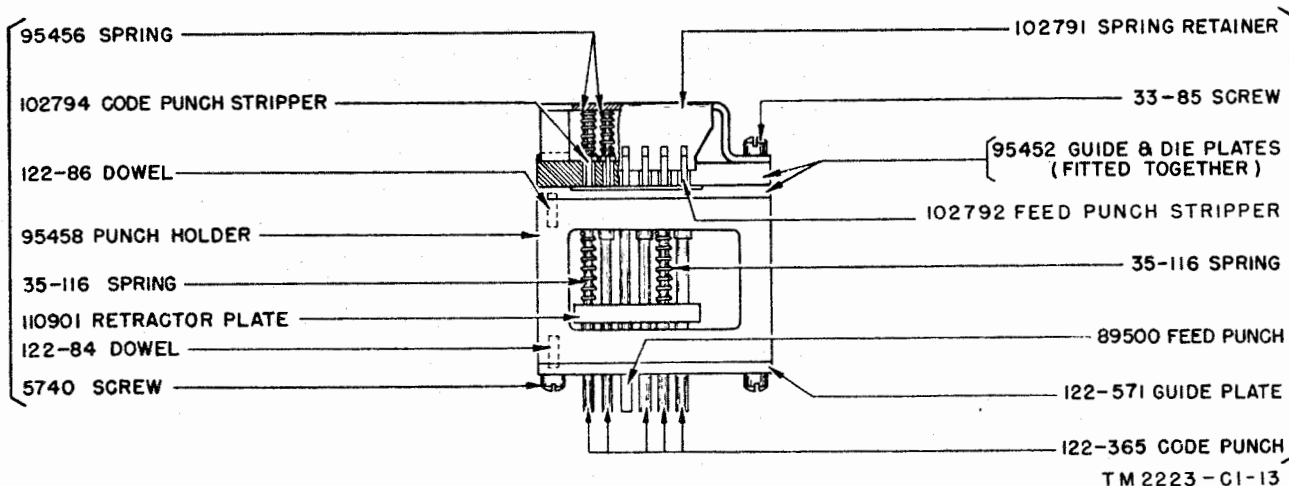


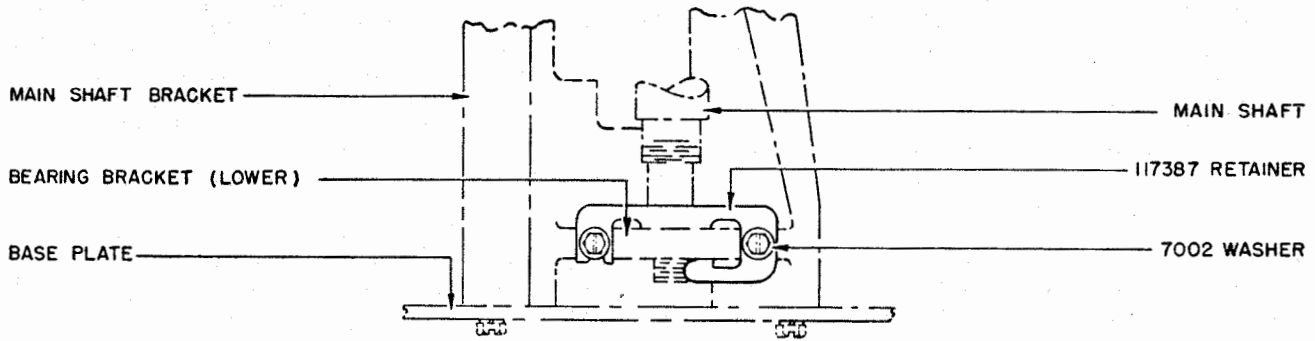
Figure 262.1 (Added.) 11024 punch-block assembly (Order Nos. 9838-Phila-48 and 14700-Phila-49).

Figure 263. Punch-bail and vertical-link bracket parts (FPR5, FPR17, FPR21, and FPR23). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 make the following changes: In the bottom illustration change the designation 3606 to read: 3598. Change the 2191 Lockwasher used with the 74399 Screw to read: 72509 Lockwasher.)

Figure 264. Main-bail bracket parts (FPR5, FPR17, FPR21, and FPR23). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 make the following changes: In the upper illustration change the designation 102235 to read: 6969. In the bottom illustration change the designation 102235 to read: 6969.)

Figure 265. Type-bar basket and code bar parts (FPR5, FPR17, FPR21, and FPR23). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 make the following changes: In the third illustration from the top, change the designation 6746 to read: 76168; change the designation 33-111 to read: 111713; change the designation 91899 to read: 89905.)

Figure 266. Main-shaft parts (FPR5, FPR17, FPR21, and FPR23). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 change the designation 82440 Screw to read: 74986 Screw. Delete the 36-24 Pin. Delete the designation 96763 Shim-0.012" Thick, 96764 Shim-0.016" Thick, and 96765 Shim-0.020" Thick.)



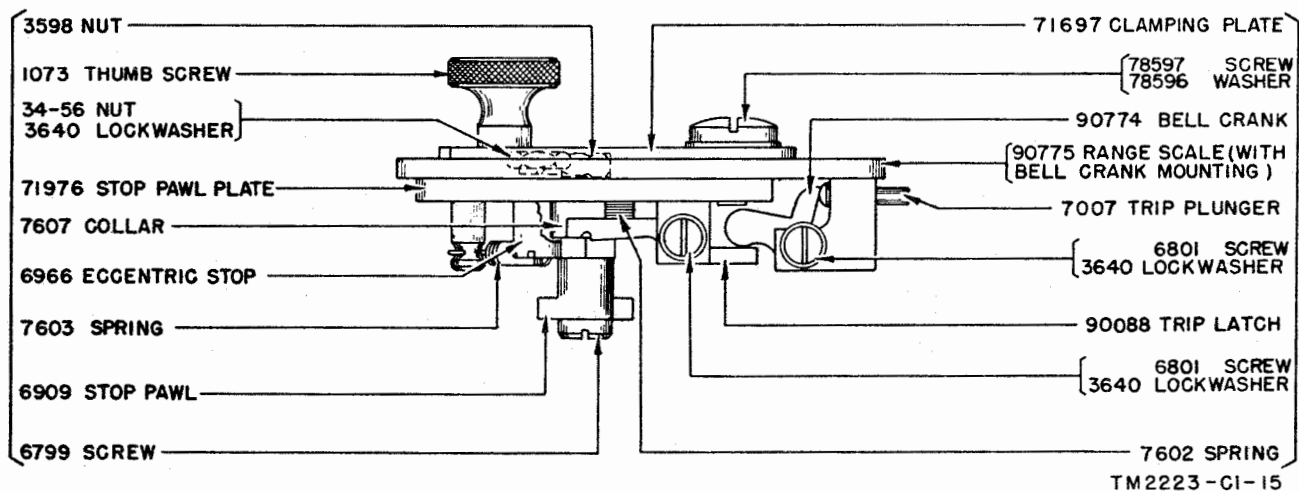
MAIN-SHAFT BEARING RETAINER

TM2223-CI-14

Figure 266.1 (Added.) Main-shaft bearing retainer.

Figure 267. Main-shaft bracket parts (FPR5, FPR17, FPR21, and FPR23). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 add the designation 2669 Lockwasher after the designation 1245 Screws and 34-4 Nut. Change the designation 98877 Operating Arm to read: 6743 Operating Arm.)

Figure 268. Bell bracket, range scale, and ribbon-feed unit parts (FPR5, FPR17, FPR21, and FPR23). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 make the following changes: In the upper illustration delete the designation 2669 Lockwasher. In the center illustration delete the designation 90760 Range Scale (Assembly) (For Use With Holding Magnet Selector). (Figure 268.1 illustrates the range scale assembly.)



TM2223-CI-15

Figure 268.1 (Added.) 90760 range scale (assembly) (Order Nos. 9838-Phila-48 and 14700-Phila-49.

Figure 269. Pull bars, type bars, pallets and key tops (FPR5, FPR17, FPR21, and FPR23). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 in the third column from the left delete all standard part numbers 6692 from positions 5 through 29, positions 31 and 32, and substitute in each instance the number 74185. In the sixth column change the designation 74445 to read: 7445.)

Figure 272. Slip connection block, intermediate gear, and tape feed-out handle parts (FPR17, FPR21, and FPR23). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 change the designation 78675 in the upper illustration to read: 97378.)

Figure 273. End-of-line indicator counter unit parts (FPR17, FPR21, and FPR23). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 make the following changes: In the upper right-hand illustration change the designation 87645 to read: 111629; change the designation 80342 to read: 1026; change the designation 3606 to read: 3598. In the bottom illustration change the designation 74952 Screw (left-hand screw only) to read: 83507 Screw.)

Figure 274. Center contact governor, governor brush and speed adjusting bracket, and motor-governor filter parts (FPR17, FPR21, and FPR23). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 make the following changes: In the upper right-hand illustration add one 7002 Washer to each of the 6347 Screws (two right-hand screws only). In the second illustration from bottom of page, at the left of the illustration change the designation Used Only With 99250 to read: Used Only With 99250 and 107094. In the bottom illustration change the designation 99250 to read: 107094. Delete the 82440 Screw and 2191 Lockwasher from the 99250 Motor-Governor Filter (Assembly) and add them, together with a 73427 Shim, to the bottom illustration separately, since they are not part of the filter assembly. Delete the 1266 Screw, 2191 Lockwasher, 7002 Washer, and 77911 Brush Cap and add them separately to the bottom illustration. In the lower right-hand portion of the bottom illustration add a 36273 Washer after the designation 74059 Screw and 2191 Lockwasher.)

Figure 275. Governed series motor units (106174 and 105738) parts (FPR17, FPR21, and FPR23). (For equipments on Order Nos. 9838-Phila-48 and 14700-Phila-49 make the following changes: Change the designation 1100 in the bottom illustration to read: 116992, and change the designation 99250 to read: 107094.)

Figure 280. Selector unit (with holding magnets) parts (FPR21 and FPR23). (Add the designation 83920 Top Separator Plate after the designation 6689 Separator Plate.)

Figure 291. Receiving-only low base and clutch-lever contact parts (FPR21). (In the lower left-hand portion of the bottom illustration under the designation 74986 Screw (left-hand screw) add: 6746 For FPR21; under both designations 74986 Screw add: 74059 For FPR23 Only. Note. These screws are used to mount the 106806 bracket to the selector mounting plate (top illustration in fig. 279).)

APPENDIX II

1. Identification Table of Replaceable Parts for Model 14 Typing and Nontyping Reproformers

b. For an index of available supply catalogs, see Department of the Army Supply Catalog SIG 1.

Note. The following list * * * manufacturer's part numbers.

Ref. symbol	Fig. location	Name of part and description	Signal Corps stock No.
*	* *	* * *	*

Note 1. (Added.) For equipments on Order Nos. 9799-Phila-48, 9838-Phila-48, and 14700-Phila-49, the following numbered parts are not used:

M-177	35-88	8539	73670	©81598	86182	95451	99250
1051	3606	8543	74445	82440	86186	©95476	99745
1100	36-24	©8896	74952	84023	86189	96763	102235
1161	61-24	9229	75436	86144	87645	96764	103538
2191	6692	33-111	78675	86149	ⓑ90760	96765	©122-577
2669	6746	41385	80342	86181	91899	98877	

Note 2 (Added.) The following new parts have been added:

Part No.	Name of part	Fig. Nos.
6743	Arm, operating	267
74185	Bar, pull	269
7445	Bar, type	269
86186G	Base	299
11024	Block assembly, punch	262, 1
97378	Block, connecting, and cord assembly	272
73705	Block, terminal	299
111629	Bracket	273
118442	Bracket	306, 1
6969	Bracket, main bail	264
86182G	Cable, line	299
86181G	Cable, power	299
86125	Cap, bearing	300
111664G	Filter assembly, line relay radio	306
107094	Filter assembly, motor-generator	274
111602	Insert, platen, metal	261
3598	Nut	263, 273
M-177G	Magnet, 105 ohms	301
83920	Plate, top separator	280
98702	Plate, tape, for FPR23	262
111603	Platen, plastic	261
74614	Resistor, 2,600 ohms	306
©110682	Roll, feed, B	262, 303
1026	Screw	273
1160	Screw	299
6746	Screw	291
6811	Screw	301
11028	Screw	299
74059	Screw	291
74986	Screw	266, 306, 1
76168	Screw	265
83507	Screw	273
108736	Screw	307
111713	Screw	266
116992	Screw	275
89905	Segment, type bar	265
©9874	Shim	261
2421	Spring	262
110839	Spring	303
110974	Spring	262
96261-BK	Strap, wire	305
3627	Washer	274
3650	Washer	299
7002	Washer	274
100-96	Washer	303
75750	Washer, bakelite	306
2191	Washer, lock	305
2669	Washer, lock	267
27509	Washer, lock	263
96202	Wire lead, yellow	306
96203	Wire lead, yellow	306

Figure 299. Base parts (RPE26). (For equipments on Order No. 9799-Phila-48 make the following changes: In the top illustration change the designation 86186 to read: 86186G. Delete the designation 86144 Switch Cover. Change the designation 86149 to read: 118442. Change the designation 8543 to read: 74986. In the bottom illustration change the designation 1161 to read: 1160. Change the designation 73670 Terminal Block (Assem) to read: 73705 Terminal Block, 11028 Screw, and 3650 Washer. Change the designation 86181 to read: 86181G. Change the designation 86182 to read: 86182G.)

Figure 300. Frame and main shaft parts (RPE26). (For equipments on Order No. 9799-Phila-48 change the designation 86189 in the top illustration to read: 86125.)

Figure 301. Selector coil assembly parts (RPE26). (For equipments on Order No. 9799-Phila-48 change the designation 8539 in the top illustration to read: 6811. Change the designation M-177 to read: M-177G.)

Figure 302, Range scale and punch-block assembly parts (RPE26). (Figure 302.1 shows the 71829 Range Scale Assembly on Order No. 9799-Phila-48. Figure 302.2 shows the 111021 Punch Block Assembly on Order No. 9799-Phila-48.)

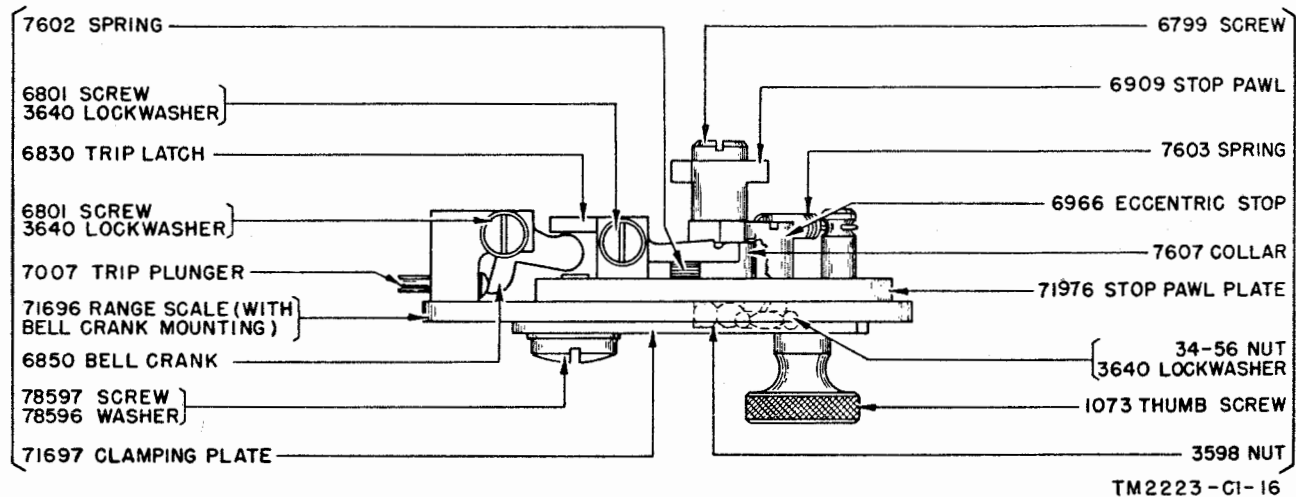


Figure 302.1 (Added.) 71829 range scale assembly (Order No. 9799-Phila-48).

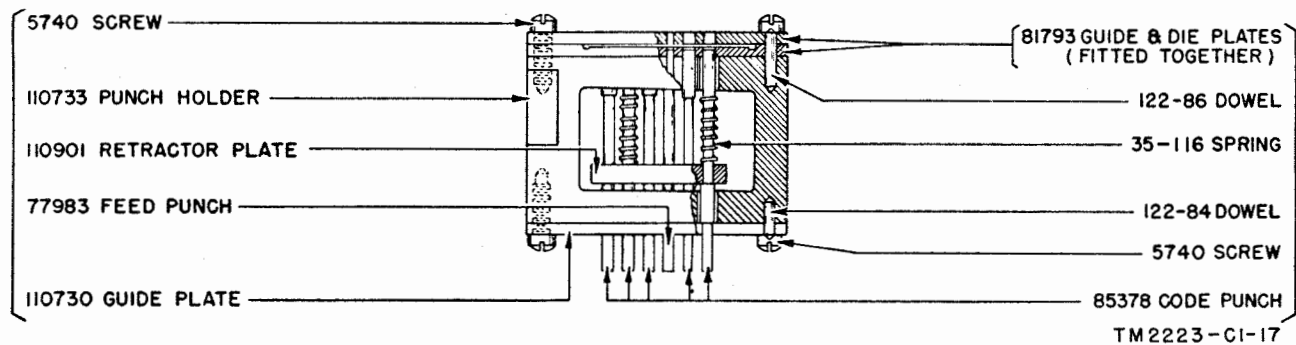


Figure 302.2 (Added.) 111021 punch-block assembly (Order No. 9799-Phila-48).

Figure 303. Punch unit parts (RPE26). (For equipments on Order No. 9799-Phila-48 make the following changes: In the top illustration add the designation 100-96 Washer immediately after the designation 81638 Collar. Delete the designation 122-577 Feed Roll B and 81598 Feed Roll Bushing and substitute 110682 Feed Roll B therefor. In the bottom illustration change the designation 41385 to read 110839.)

Figure 305. Jack, relay base, resistor, bracket, and cord parts (RPE26). (For equipments on Order No. 9799-Phila-48 make the following changes: Delete the designation 99745 Line And Selector Jack (Assem) from the upper left-hand illustration and order foregoing assembly parts individually. Delete the designation 96258-BK Wire. In the upper right-hand illustration (at resistor terminal) add the designation 2191 Lock-washer immediately after the designation 3598 Nut. Add the designation 96258-BK Wire Strap (3'' long) above the designation 96258-W Wire Strap (3'' long). After the designation 96258-W Wire Strap (3'' long) add a 96261-BK Wire Strap (3³/₄'' long.)

Figure 306. Line-relay radio filter and resistor unit parts (RPE26). (For equipments on Order No. 9799-Phila-48 make the following changes: In the upper illustration change the designation 92229 Line Relay Radio Filter (Assembly) —110 V to read: 111664G Line Relay Radio Filter (Assembly). In the top right-hand illustration exclude the 6810 Screw and 2669 Lockwasher from the 92229 Assembly and show them separately. In the top left-hand illustration, delete the 61-24 Washer-Bakelite and substitute 75750 Washer-Bakelite therefor. Above the 92852 Wire Lead-Orange add a 96202 Wire Lead-Yellow (1½" long) and a 96203 Wire Lead-Yellow (1¾" long). In the center illustration delete the 75436 Resistor-3,000 Ohms (1,000-2,000) and substitute the following therefor: 74614 Resistor-2,600 Ohms (2,000-600). Delete the bottom illustration and substitute figure 306.1 therefor.)

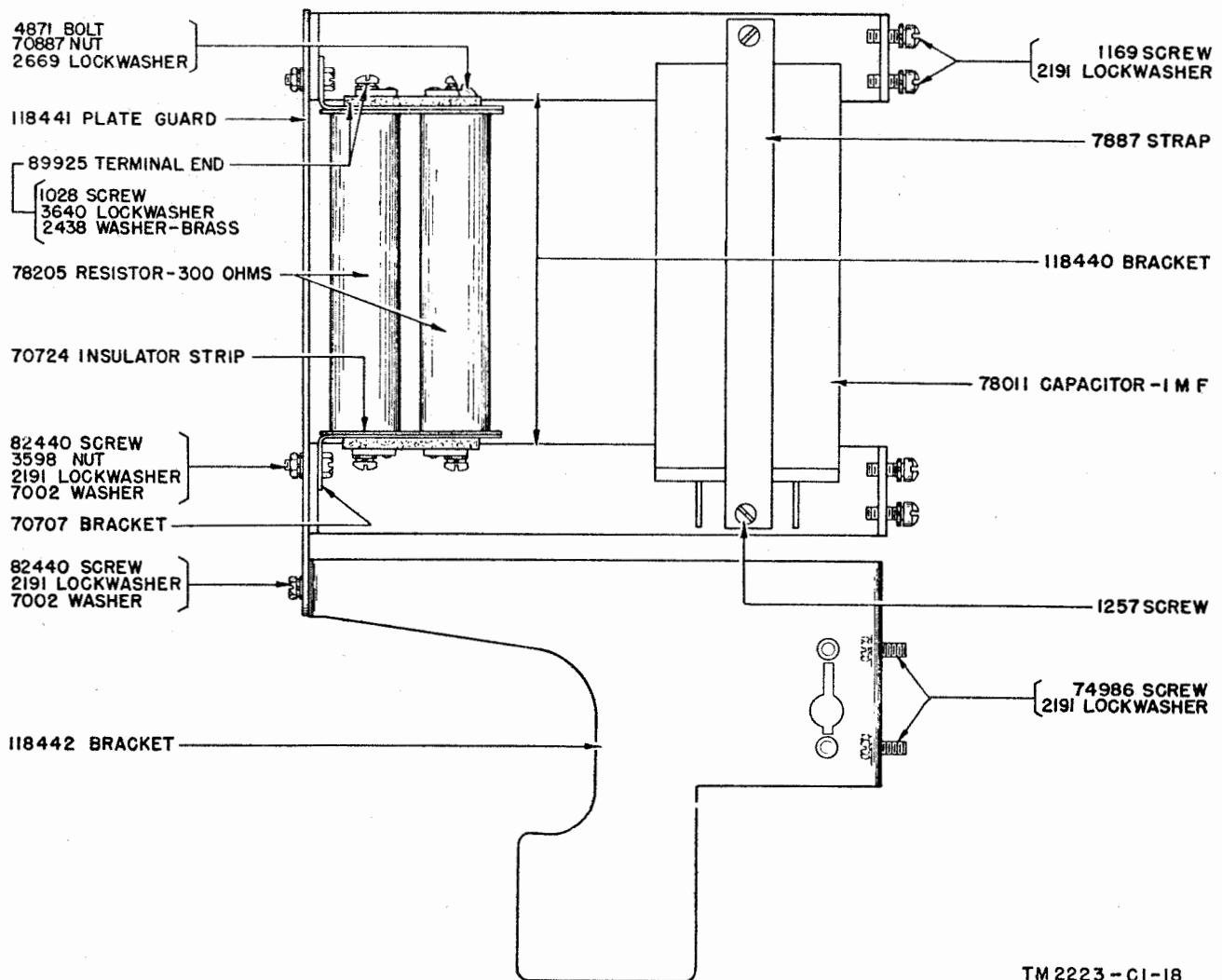


Figure 306.1. (Added.) Resistor unit (assembly) (Order No. 9759-Phila-48).

Figure 307. Target lamp, tape reel, and cover parts (RPE26). (For equipments on Order No. 9799-Phila-48 delete the 1051 Screw and substitute 108738 Screw therefor.)
[AG 300.7 (7 Jun 49)]

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